"MORE MANIAS, PANICS, AND CRASHES MAY PLAGUE US, BUT READERS OF THIS BOOK WILL AT LEAST HAVE BEEN INOCULATED."

- ROBERT M. SOLOW, MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SIXTH EDITION

MANIAS, PANICS, *and* CRASHES

A HISTORY OF FINANCIAL CRISES

CHARLES P. KINDLEBERGER
AND ROBERT Z. ALIBER

FOREWORD BY ROBERT M. SOLOW

Manias, Panics and Crashes

A History of Financial Crises

Sixth Edition

Charles P. Kindleberger

and

Robert Z. Aliber

palgrave
macmillan

First edition published 1978
Second edition published 1989
Third edition published 1996
Fourth edition published 2000
Fifth edition published 2005
Sixth edition published 2011 by
PALGRAVE MACMILLAN

Palgrave Macmillan in the UK is an imprint of Macmillan Publishers Limited, registered in England, company number 785998, of Houndmills, Basingstoke, Hampshire RG21 6XS.

Palgrave Macmillan in the US is a division of St Martin's Press LLC, 175 Fifth Avenue, New York, NY 10010.

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ISBN: 978–0–230–36535–3 paperback

This book is printed on paper suitable for recycling and made from fully managed and sustained forest sources. Logging, pulping and manufacturing processes are expected to conform to the environmental regulations of the country of origin.

A catalogue record for this book is available from the British Library.

A catalog record for this book is available from the Library of Congress.

10 9 8 7 6 5 4 3 2 1
20 19 18 17 16 15 14 13 12 11

Printed and bound by CPI Group (UK) Ltd, Croydon, CR0 4YY

Foreword

Charlie Kindleberger (CPK from now on) was a delightful colleague: perceptive, responsive, curious about everything, full of character, and, above all, lively. Those same qualities are everywhere evident in *Manias, Panics and Crashes*. I think that CPK began to work on the book in the spirit of writing a natural history, rather as Darwin must have done at the stage of the *Beagle* – collecting, examining and classifying interesting specimens. Manias, panics, and crashes had the advantage over rodents, birds, and beetles that they were accompanied by the rhetoric of contemporaries, sometimes with insight, sometimes just blather. It was CPK's style as an economic historian to hunt for interesting things to learn, not to pursue a systematic agenda.

Of course, he was an economist by training and experience, and he soon found patterns and regularities, and causes and effects. What caught his eye especially were the irrationalities that seemed so often to enmesh those directly or indirectly enmeshed in the events themselves. By itself that would have been merely entertaining. The story got interesting for CPK with the interaction of behavior and institutions. The occurrence of manias, panics, and crashes, and their ultimate scope, also depended very much on the monetary and capital-market institutions of the time.

CPK could not have known at the start just how hardy a perennial financial crises would turn out to be. The quarter-century *after* the publication of the first edition featured a whole new level of turbulence in national banking systems, exchange-rate volatility and asset-price bubbles. There was always new material to be digested in successive editions. This history cannot have been merely the result of increasing human irrationality, though CPK would have been charmed by what a German friend of ours called 'Das Gesetz der Verschlechtigung aller Dinge' (the Law of the Deterioration of Everything). Increasing wealth, faster and cheaper communication, and the evolution of national and international financial systems also played an indispensable role, as sketched in Chapter 13, added to this edition by Robert Aliber. CPK's effort at economic history found a subject that does not appear to be going out of style.

The shape of a 'new financial architecture' and the possible utility of a lender of last resort – national and/or international – along with the guidelines that ought to govern it were also among CPK's preoccupations. Those who are engaged in reforming (or at least changing) the system would do well to ponder the lessons that emerge from this book.

One of those lessons is very general, and is most applicable in contexts where irrationality may trump sober calculation. CPK was a skeptic by nature, just the opposite of doctrinaire. He mistrusted iron-clad intellectual systems, whether their proponents were free marketeers or social engineers. In fact, he considered clinging to rigid beliefs in the face of disconcerting evidence to be one of the more dangerous forms of irrationality, especially when it is practiced by those in charge. The international economy would be a safer place if CPK's tolerant skepticism were more common among the powers that be. I am thinking, in particular, about current discussions of the so-called 'Washington consensus', and the pros and cons of both freely floating exchange rates and unfettered capital markets.

Any reader of this book will come away with the distinct notion that large quantities of liquid capital sloshing around the world should raise the possibility that they will overflow the container. One issue omitted in the book – because it is well outside its scope – is the other side of the ledger: What are the social benefits of free capital flow in its various forms, the analogue of gains from trade? CPK, whose specialties as an economist included international trade, international finance and economic development, would have been sensitive to the need for some pragmatic balancing of risks and benefits. One can only hope that the continued, up-to-date availability of this book will help to spread his open-minded habit of thought.

As he carries the sixth edition up to date, Aliber emphasizes the likelihood that the roughly concurrent credit bubbles in a number of different countries are interrelated events, possibly responses to a common disturbance. It seems implausible that the appearance of housing-based credit bubbles in the United States, the UK, Ireland, and Spain merely reflects independent rolls of the dice. Aliber shows how these events are transmitted internationally through current account imbalances in a world in which capital moves easily across borders. CPK, as a specialist in international economics, would probably have cottoned to this account.

A more complicated question, also surfaced by Aliber, is whether there are successive 'waves' of credit bubbles that are causally related. If this is so, its has important implications for the design of future regulation, both domestically and internationally. We are now well beyond natural history.

It seems to me that the Aliber version preserves this basic Kindleberger orientation but imposes a little more order on CPK's occasionally wayward path through his specimen cabinets. More manias, panics, and crashes may plague us, but readers of this book will at least have been inoculated.

Robert M. Solow

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1 Financial Crisis: a Hardy Perennial

The years since the early 1970s are unprecedented in terms of the volatility in the prices of commodities, currencies, real estate, and stocks. There have been four waves of financial crises; a large number of banks in three, four, or more countries collapsed at about the same time. Each wave was followed by a recession, and the economic slowdown that began in 2008 was the most severe and the most global since the Great Depression of the 1930s.

The first crisis wave was in the early 1980s when Mexico, Brazil, Argentina, and ten other developing countries defaulted on their $800 billion of US dollar-denominated loans. The second wave occurred in the early 1990s and engulfed Japan and three of the Nordic countries – Finland, Norway, and Sweden. The Asian Financial Crisis that began in mid-1997 was the third wave; Thailand, Malaysia, and Indonesia were involved initially and subsequently South Korea, Russia, Brazil, and Argentina tumbled. In retrospect the financial crisis that impacted Mexico during its presidential transition at the end of 1994 was the forerunner for the crisis in Southeast Asia thirty months later. The fourth wave began in 2007 and was triggered by declines in the prices of real estate in the United States, Britain, Spain, Ireland, and Iceland – and then by declines in the prices of the bonds of the Greek, Portuguese, and Spanish governments.

Each wave of crises followed a wave of credit bubbles, when the indebtedness of similarly placed groups of borrowers increased at a rate two or three times higher than the interest rate for three, four, or more years. Usually these borrowers used the money to buy real estate – homes and commercial properties. However, the first wave of credit bubbles involved rapid growth in the loans from the major international banks to the governments and to government-owned firms in Mexico and other developing countries that continued for nearly ten years. Japan was the key country in the second wave of bubbles, real estate prices and stock prices increased by a factor of five to six in the 1980s. At about the same time the prices of both types of assets surged in Finland, Norway, and Sweden. The third wave of bubbles initially was centered on Thailand and some of its neighbors in Southeast Asia. The fourth wave of bubbles primarily was in the real estate markets in the United States, Britain, Spain, Ireland, and Iceland.

Each of these waves of credit bubbles involved cross-border flows of money, which induced large increases in the values of the currencies and increases in the prices of real estate or stocks in the countries receiving the money.

Bubbles always implode, since by definition they involve non-sustainable increases in the indebtedness of a group of borrowers or non-sustainable increases in the prices of stocks. Debt can increase much more rapidly than income for two or three or a few more years, but debt cannot grow more rapidly than income for an extended period. When debt increases at 20 to 30 percent a year, the borrowers have an impeccable record for paying the scheduled interest in a timely way. Eventually the rate of growth of their indebtedness slows, and the 'day of reckoning occurs' when there isn't enough cash from new loans to pay the interest on outstanding loans. Then the prices of real estate and of stocks decline. Moreover when the rate of growth of indebtedness slows, the currencies depreciate, and often very sharply.

When real estate prices decline the borrowers are the first group to incur losses; after they default, the losses cascade to the lenders. The implosion of the real estate and stock bubbles in Japan led to the massive failure of banks and a prolonged period of below-trend growth. The implosion of the asset price bubble in Thailand in mid-1997 triggered declines in currency values and asset prices throughout the region; recessions followed. However, there were no significant failures of US financial firms when the US stock prices declined by 40 percent between 2001 and 2003, and the ensuing recession was brief and shallow.

The range of movement in the values of national currencies since the early 1970s has been much larger than ever before. In 1971 the United States abandoned the US gold parity of $35 an ounce that had been established in 1934. The effort to retain a modified version of the Bretton Woods system of pegged currencies that was formalized in the Smithsonian Agreement of 1972 failed and a floating exchange rate arrangement was adopted by default early in 1973. At the beginning of the 1970s, the dominant market view was that the German mark and the Japanese yen might appreciate by 10 to 12 percent because their inflation rates had been below the US rate in the previous few years. The German mark and the Japanese yen appreciated more rapidly than anticipated through most of the 1970s, and then both currencies depreciated significantly in the first half of the 1980s, although not to the levels of the early 1970s. The Mexican peso, the Brazilian cruzeiro, the Argentinean peso and the currencies of many of the other developing countries depreciated by 30 to 40 percent or more in the early 1980s. The Finnish markka, the Swedish krona, the British pound, the Italian lira and the Spanish peseta lost more than a third of their value in the last six months of 1992. The Mexican peso lost more than half of its value during the presidential transition at the end of 1994. Most of the Asian currencies – the Thai baht, the Malaysian ringgit, the Indonesian rupiah and the South Korean won – depreciated sharply during the Asian Financial Crisis in the summer and autumn of 1997. The Argentinean peso lost more than two-thirds of its value in the first few months of 2001. The Icelandic krona lost half of its value in 2008. The euro, the new currency that eleven members of the European Union adopted at the beginning of 1999, soon depreciated by 30 percent, and then appreciated by 50 percent beginning in 2002.

The changes in the values of these individual currencies were much larger than those that would have been forecast based on the differences between the US and the foreign inflation rates. The 'overshooting' and 'undershooting' of national currencies were much larger than in any previous period.

The increases in commodity prices in the 1970s were spectacular. The US dollar price of gold increased from \$40 an ounce at the beginning of the 1970s to nearly \$1000 ten years later; the price was \$450 at the end of the 1980s and \$283 at the end of the 1990s. The price exceeded \$1200 in the summer of 2010. The price of oil was \$2.50 a barrel at the beginning of the 1970s and \$40 at the end of that decade; in the mid-1980s the oil price was \$12 and then at the end of the 1980s the price increased to \$40 after the Iraqi invasion of Kuwait. The oil price almost reached \$150 in the early summer of 2008, and then declined below \$50 and then increased to \$80.

The number of bank failures during the 1980s and the 1990s was much, much larger than in earlier decades. Several of these failures were isolated events: both Franklin National Bank in New York City and Herstatt AG in Cologne, Germany, had made large bets on the changes in currency values in the early 1970s that they subsequently lost. Crédit Lyonnais, once the largest bank in France and a government-owned firm, rapidly increased its loans in the effort to become a first-tier international bank and its bad loans eventually cost the French taxpayers the equivalent of more than \$30 billion. However, most failures of banks and other financial firms were systemic and reflected dramatic changes in the financial environment. Three thousand US savings and loan associations and other thrift institutions failed in the 1980s, with losses to the American taxpayers of more than \$100 billion.

When the bubbles in Japanese real estate and stocks imploded, the losses incurred by the Japanese banks were several times larger than their capital and virtually all the Japanese banks implicitly became wards of the government. Similarly when the Mexican peso and the currencies of the other developing countries depreciated sharply in the early 1980s, most of the banks in these countries went under because of the combination of the large loan losses by their domestic borrowers, in part due to the massive currency revaluation losses they had incurred. Virtually all of the banks in Finland, Norway, and Sweden went bankrupt when the bubbles in their real estate and stock markets imploded in the first half of the 1990s. Most of the Mexican banks failed at the end of 1994 when the peso depreciated sharply. Similarly most of the banks in Thailand and Malaysia and South Korea and several of the other Asian countries – except for Hong Kong and Singapore – tanked after the mid-1997 Asian Financial Crisis. The sharp declines in prices of residential real estate in the United States, Britain, Ireland, and several other countries that began toward the end of 2006 led to massive government investments – 'bailouts' – of the financial institutions. In 2008 many of the top firms in the US investment banking industry were wiped out or forced to seek a stronger merger partner. The British government 'nationalized' Northern Rock, the largest mortgage lender in the country, and became the dominant shareholder in the Royal Bank of Scotland. The Irish government made massive investments in the six largest banks in the country. The three large banks in Iceland were taken over by the government. Countrywide Financial, the largest mortgage lender in the United States, was acquired by Bank of America, which subsequently acquired Merrill Lynch, one of the largest US investment banks – but then Bank of America required a large injection of capital from the US Treasury. The US government made a massive investment in Citibank. The Dutch government provided capital to ING, the insurance–banking conglomerate.

These financial crises and bank failures resulted from the implosion of the asset price bubbles and from the sharp depreciations of currencies; in many cases the currency crises triggered the banking crises. The cost of these bank crises was extremely high in terms of several metrics – the losses incurred by the banks as a ratio of a country's GDP and as a share of government spending, and the slowdowns in the rates of economic growth and the increases in unemployment and in the output gaps.

The massive number of bank failures, the large changes in currency values, and the asset price bubbles were systematically related and resulted from rapid changes in the global economic environment. The 1970s was a decade of accelerating inflation, the largest-ever sustained increase in the US price level in peace-time. The market price of gold surged because some investors relied on the cliché that 'gold is a good inflation hedge'; however the increase in the gold price was many times larger than the contemporary increase in the US and world price levels. Toward the end of the 1970s investors were buying gold because its price was increasing – and the price was increasing because investors were buying gold.

The prevailing view in the late 1970s was that the US and world inflation rates would accelerate. Some analysts predicted that the gold price would reach $2500 an ounce and that the oil price would reach $80 to $90 a barrel by 1990.

The range of movement in bond prices and stock prices in the 1970s was much greater than in the several previous decades. In the 1970s the real rates of return on both US dollar bonds and US stocks were negative. In contrast in the 1990s the real rates of return on bonds and on stocks averaged more than 15 percent a year.

The foreign indebtedness of Mexico, Brazil, Argentina, and other developing countries as a group increased from $125 billion in 1972 to $800 billion in 1982. One cliché at the time was that 'countries don't go bankrupt'. During this period the borrowers had a stellar record for paying the interest on their loans on a timely basis. Then in the autumn of 1979 the Federal Reserve adopted a sharply contractive monetary policy; interest rates on US dollar securities surged. The price of gold peaked in January 1980 and then began to decline as inflationary anticipations were reversed.

The sharp increase in real estate prices and stock prices in Japan in the 1980s was associated with a boom in the economy; *Japan as Number One: Lessons for America*[1] was a bestseller in Tokyo. The Japanese banks increased their deposits and their loans and their capital much more rapidly than banks headquartered in the United States and in Germany and in the other European countries. At the time seven or eight of the ten largest banks in the world were Japanese. Then at the beginning of the 1990s real estate prices and stock prices in Japan imploded. Within a few years many of the leading Japanese banks and financial institutions were broke, kaput, bankrupt, and insolvent, and remained in business only because of an implicit understanding that the Japanese government would protect the depositors from financial losses if the banks were closed. A striking story of a mania and a crash – but without a panic, because depositors believed that government would socialize the loan losses.

Three of the Nordic countries – Norway, Sweden, and Finland – experienced bubbles in their stock markets and real estate markets at about the same time as a result of money inflows associated with financial liberalization. Their bubbles popped at about the same time as the one in Japan.

Mexico had been one of the great economic success stories of the early 1990s as it prepared to enter the North American Free Trade Agreement. The Bank of Mexico had adopted a tough contractive monetary policy that reduced the inflation rate from 140 percent to less than 10 percent in four years; during the same period several hundred government-owned firms were privatized and business regulations were liberalized. Money flowed to Mexico because the real rates of return on government securities were high and because the prospective profit rates on industrial investments were also high. The universal expectation was that Mexico would become the low-cost base for producing automobiles and washing machines and many other manufactured goods for the US and Canadian markets. The large money inflow led to a real appreciation of the peso, Mexico's trade deficit increased to 7 percent of its GDP and its external debt to 60 percent of its GDP. Then several political incidents associated with the presidential election in 1994 led to a sharp decline in the flow of money and the Mexican government was unable to support the peso. Once again the depreciation of the peso resulted in large loan losses, and most of the Mexican banks – which had been privatized in the previous several years – failed.

In the mid-1990s real estate prices and stock prices surged in Thailand, Malaysia, and Indonesia; these were the 'dragon economies' that seemed likely to emulate the economic successes of the 'Asian tigers' – Taiwan, South Korea, Hong Kong, and Singapore – of the previous generation . Firms based in Japan, Europe, and the United States invested in these countries as low-cost sources of supply, much as US and foreign firms had invested in Mexico as a source of supply for the North American market. European and Japanese banks rapidly increased their loans to firms and banks in these countries. The domestic lenders in Thailand then experienced large losses on their domestic loans in the autumn and winter of 1996 because they had not been sufficiently discriminating in their evaluations of the willingness of Thai borrowers to pay the interest on their indebtedness. Foreign lenders sharply reduced their purchases of Thai securities, and then the Bank of Thailand, much like the Bank of Mexico thirty months earlier, did not have the money to support its currency. The sharp decline in the value of the baht in early July 1997 led to money outflows from the other Asian countries and their currencies (except for the Hong Kong dollar and the Chinese yuan, which remained rigidly pegged to the US dollar) declined by 30 percent or more. The Indonesian rupiah lost 80 percent of its value. Most of the banks in the area – except for those in Hong Kong and Singapore – would have been bankrupt in any reasonable 'mark-to-market' test. The crisis spread to Russia, there was a debacle in the ruble, and the country's banking system collapsed in the summer of 1998. Investors then became more cautious and they sold risky securities and bought safer US government securities, and the changes in the relationship between the interest rates on these two groups of securities led to the collapse of Long-Term Capital Management, then the largest US hedge fund.

The 1990s bubble in NASDAQ stocks

Stocks in the United States are traded on either the over-the-counter market or on one of the organized stock exchanges, primarily the New York Stock Exchange. The typical pattern was that shares of young firms would initially be traded on the over-the-counter market and then most of these firms would incur the costs associated with obtaining a listing on the New York Stock Exchange because they believed that a listing would broaden the market and lead to higher prices for their stocks. Some very successful new firms associated with the information technology revolution of the 1990s – Microsoft, Cisco, Dell, Intel – were exceptions to this pattern; they chose not to obtain a listing on the New York Stock Exchange because they believed that trading stocks electronically in the over-the-counter market was superior to trading stocks by the open-outcry method used on the New York Stock Exchange.

In 1990 the market value of stocks traded on the NASDAQ was 11 percent of that of the New York Stock Exchange; the comparable figures for 1995 and 2000 were 19 percent and 42 percent. The annual average percentage rate of increase in the market value of NASDAQ stocks was 30 percent during the first half of the decade and 46 percent during the next four years. A few of the newer firms traded on the NASDAQ would eventually become as successful as Microsoft and Intel and so high prices for their stocks might be warranted. The likelihood that all of the firms whose stocks were traded on the NASDAQ would be as successful as Microsoft was extremely small, since it implied that the profit share of US GDP would be two to three times higher than it ever had been previously.

In part the large number of crashes in national financial markets in the last thirty years reflects that there are more independent countries. Despite the lack of perfect comparability across periods, the conclusion is unmistakable that financial failure has been more extensive and pervasive in the last thirty years.

The bubble in US stock prices in the second half of the 1990s was associated with a remarkable US economic boom; the unemployment rate declined sharply, the inflation rate declined, and the rates of economic growth and productivity both accelerated. The US government developed its largest-ever fiscal surplus in 2000 after having had its largest-ever fiscal deficit in 1990. The remarkable performance of the real economy contributed to the surge in US stock prices that in turn led to the increase in investment spending and consumption spending and an increase in the rate of US economic growth.

US stock prices began to decline in the spring of 2000 and fell by 40 percent in the next three years while the prices of NASDAQ stocks declined by 80 percent.

US real estate prices began to increase at an above-average rate in 2002. Real estate prices increase in the long run, in part because of the increase in the general price level and in part because of the increase in nominal GDP. (Much of the increase in real estate prices reflects increases in the price of land.) The Federal Reserve maintained low interest rates in part because of the sluggishness in the economy, and house prices increased three times as rapidly as the general price level. The sharp increase in prices induced a construction boom, and housing starts reached two million units a year – about 500,000 more units than the number required to satisfy the growth in population and the losses to fires, storms, and similar factors. Part of the increase in demand was from investors who sought profits from the continued increases in prices.

The sharp decline in the price of residential real estate and the debacle in the prices of mortgage-related securities since 2007 has led to many books that are

US-centric, and that seek to explain the bubble in terms of the failure of regulation or the greed of the bankers or the failure of the regulators or vagaries of new financial instruments.

One of the themes of this book is that the credit bubbles that often occur in several different countries at the same time have similar initial causes. Thus the surge in the indebtedness of the developing countries in the 1970s occurred because the major international banks believed that commodity prices would continue to increase and that the growth rates in these countries would remain high. The likelihood that the bubbles in the real estate markets in the United States, Britain, Ireland, Iceland, Spain, South Africa, and several other countries that began about 2002 were independent events seems low. Bubbles in real estate always result from bubbles in the growth of credit. There were unique idiosyncratic aspects in these different national markets; the market in subprime mortgages seems uniquely American. The rapid growth in the supply of credit led to a sharp increase in the demand for mortgages, which was greater than the supply of prime loans and so the mortgage brokers ginned up a large increase in the supply of sub-prime mortgages.

Another theme is that the likelihood that the four waves of bubbles over a thirty-year period were unrelated events is low. Each bubble led to a crisis. Several of these crises appear to have laid the basis for the next wave of bubbles. The financial crisis in the developing countries in the early 1980s had a knock-on effect that contributed to the bubble in Japanese real estate and stocks in the second half of the 1980s. The implosion of the bubble in Tokyo in the early 1990s led to an increase in money flows from Japan to Thailand and Malaysia and Indonesia, which led to the appreciation of their currencies and to increases in the prices of real estate and of securities in these countries. When the bubbles in the countries in Southeast Asia imploded, there was surge in the flow of money to the United States as these countries repaid loans; the US dollar appreciated and the US trade deficit increased by $150 billion a year.

The increase in the flow of money to a country almost always led to increases in value of its currency and to increases in the prices of assets in that country as the domestic sellers of the securities used nearly all of their receipts to buy other securities from other domestic residents. These domestic residents in turn similarly used a large part of their receipts to buy other domestic securities from other domestic residents. These transactions in securities occurred at ever-higher prices. It was as if the cash from the sale of securities to foreigners was the proverbial 'hot potato' that was rapidly passed from one group of investors to others at ever-increasing prices.

Manias and credit and books

The production of books on financial crises is counter-cyclical. A spate of books on the topic appeared in the 1930s following the US stock market bubble in the late 1920s and the subsequent crash and the Great Depression. Relatively few books on crises appeared during the several decades immediately after World War II.

The first edition of this book was published in 1978, after US stock prices had declined by 50 percent in 1973 and 1974 following a fifteen-year bull market in stocks. The stock market debacle and the US recession led to the bankruptcies of the Penn Central railroad, several of the large steel companies and a large number of Wall Street brokerage firms. New York City was on the verge of default on its outstanding bonds and was saved from insolvency by the State of New York. Not quite a crash, unless you were a senior official or a stockholder in one of the firms that failed or the Mayor of New York City.

The fifth edition was published after the implosion of the dot.com bubble in US stocks in the late 1990s. The innovation since the fifth edition were the bubble in residential real estate in the United States, Britain, Ireland, Spain, Iceland, and several other countries, and the sharp increase in the indebtedness of the governments of Greece, Portugal, Ireland, and Spain.

Each of these waves of bubbles has been global, in that four, five, or more countries have been involved. Moreover the bubbles seem larger, judged by the increase in household wealth.

Books on the 2008 financial crisis

The collapse of US investment banks and commercial banks in 2007 and 2008 and 2009 has led to a large number of books on the financial crisis from three different groups of authors. Many are by journalists, including Gillian Tett, who wrote *Fool's Gold: How Unrestrained Greed Corrupted a Dream, Shattered Global Markets, and Unleashed a Catastrophe.* Andrew Ross Sorkin brought out *Too Big to Fail: The Inside Story of How Wall Street and Washington Fought to Save the Financial System – and Themselves.* Roger Lowenstein authored *The End of Wall Street,* Justin Fox wrote *The Myth of the Rational Market: A History of Risk, Reward, and Delusion on Wall Street,* and Scott Patterson produced *The Quants; How a New Breed of Math Whizzes Conquered Wall Street and Nearly Destroyed It.* The theme of market irrationality is also explored in John Cassidy's *How Markets Fail; The Logic of Economic Calamities.* Michael Lewis's *The Big Short: Inside the Doomsday Machine* focused on a few individuals who early on realized that there was a bubble in the housing market, and that exceptional profits could be achieved from short-selling mortgage-related securities. Then there was Suzanne McGee's *Chasing Goldman Sachs: How the Masters of the Universe Melted Wall Street Down...And Why They Will Take Us to the Brink Again* and *The Meltdown Years: The Unfolding of the Global Economic Crisis* by Wolfgang Munchau, Charles R. Morris's *The Trillion Dollar Meltdown: Easy Money, High Rollers, and the Great Credit Crash,* James Grant's *Mr Market Miscalculates: The Bubble Years and Beyond,* Charles Gasparino's *The Sellout: How Three Decades of Wall Street Greed and Government Mismanagement Destroyed the Global Financial System,* Barry Rithholtz's *Bailout Nation: How GREED and EASY MONEY Corrupted Wall Street And Shook the World Economy,* and

Meltdown: How Greed and Corruption Shattered Our Financial System and How We Can Recover by Katrina vanden Heuvel and the Editors of the *Nation*.

Some of the books are by academics. One of the first was Richard Posner's *The Failure of Capitalism*. Robert J. Shiller produced *The Subprime Solution* and George A. Akerlof together with Shiller wrote *Animal Spirits*; some of the chapters in this book focus on the crisis. Simon Johnson and James Kwak authored *13 Bankers: The Wall Street Takeover and the Next Financial Meltdown*. Raghuram G. Rajan wrote *Fault Lines: How Hidden Fractures Still Threaten the World Economy*, Joseph Stiglitz produced *Freefall: America, Free Markets, and the Sinking of the World Economy* and Nassim Nicholas Taleb brought out *The Theory of Black Swan Events*, a critique of the prevailing consensus in academic finance about market efficiency. Thomas Sowell's contribution was *The Housing Boom and Bust* while a group of fifteen distinguished economists brought out *The Squam Lake Report; Fixing the Financial System*, with more than thirty recommendations for changes in regulations. Amar Bhide wrote *A Call for Judgment*, which integrates modern finance and classical economics, while Nouriel Roubini and Stephen Mihm brought out *Crisis Economics: A Crash Course in the Future of Finance*.

A third group of books are by 'insiders', individuals who had formerly been with a financial firm. Henry Paulson, the US Secretary of the Treasury from 2007 to 2009 and previously the head of Goldman Sachs, authored *On the Brink: Inside the Race to the Stop the Collapse of the Global Financial System*. Lawrence McDonald wrote *A Colossal Failure of Common Sense; the Inside Story of the Collapse of Lehman Brothers*, his former employer. William D. Cohan, a former banker turned journalist, brought out *House of Cards: A Tale of Hubris and Wretched Excess on Wall Street*, while Alex Pollock, another former banker, published *Boom and Bust: Financial Cycles and Human Prosperity*. George Cooper, a financial analyst, wrote *The Origin of Financial Crises*.

Most of these books are US-centric and ignore or minimize the bubbles in the property markets in other countries. However, there have been three books on the crisis in Iceland – *Meltdown Iceland: Lessons on the World Financial Crisis from a Small Bankrupt Island*, by Roger Boyes, a British journalist, *Why Iceland?* by Asgeir Jonsson, a former senior banker with Kaupthing, one of the fallen firms, and *Frozen Assets: How I Lived Iceland's Boom and Bust*, by Eftir Armann Thorvaldsson, a former UK head of the same bank. Moreover the government of Iceland that came to power after the collapse established an Icelandic Special Investigation Commission which produced *Causes of the Collapse of the Icelandic Banks – Responsibilty, Mistakes, and Negligence*; the authors were Pali Hreinsson, Tryggvie Gunnarsson, and Sigridur Benediktsdottir.

The US Congress established a bi-partisan ten-member Financial Crisis Inquiry Commission, which has held extensive hearings and interviewed witnesses from the leading financial firms. Both former Chairman Alan Greenspan and former Secretary of the Treasury Robert Rubin testified before the commission. The FCIC's report was published in December 2010 (and is available at www.fcic.gov/report).

The titles and subtitles of these books express common themes – greed, the malfunctioning of markets, the corruption of Wall Street, and the capture of Washington and the regulators by the bankers. And more greed.

The shortcoming of most of these books is that they give no explanation for why the crisis occurred when it did, nor do they have an explanation for why some countries were involved but not others. Were the problems in Iceland a spinoff from the United States, or were the problems of the largest and the smallest affected countries a result of a common factor? Was there a sharp increase in greed of the bankers