Kindleberger

INTRODUCTION TO THE SEVENTH EDITION Robert Z. Aliber It was my great good fortune to inherit Manias from Charles Kindleberger after he had brought out the first four editions. The first edition of Manias was published in 1978, four years before the first major post-World War II global banking crisis and more than forty years after the Great Depression of the 1930s. Kindleberger had been discussing some the ideas about the causes of these periodic banking crises in his classes at MIT for three or four years before the first edition was published. The motivation may have been the surge in loans from the major international banks to the governments and government-owned firms in Mexico, Brazil, Argentina, and ten other developing countries; the external indebtedness of these countries was increasing by 20 percent a year, perhaps three times the increases in their GDPs. These rates of growth of indebtedness were too high to be sustainable. Kindleberger was focused on the 'end game' and the adjustments that were likely when the lenders concluded that they should slow the increase in their loans to these indebted borrowers. The insight that led to Manias was the instability in financial markets during the 1920s and the 1930s and the Great Depression. He was concerned that the move to a floating currency arrangement after the US Treasury closed its gold window after the historic Camp David weekend of August 1971 was likely to be a source of financial instability. Kindleberger's approach relied on contemporary and historic accounts of the surges in the prices of securities and real estate and the subsequent crashes; he quoted John Stuart Mill, Walter Bagehot, Alfred Marshall, and many others. He grouped the remarks of these authors by the stages of the financial cycle – first the increases in the prices of real estate and securities, then their observations when prices peaked, and then in the debacle as prices crashed. The third feature of his approach followed Hyman Minsky's emphasis that changes in the supplies of credit were pro-cyclical; increases in the supply prolonged the expansion in the boom and decreases intensified the subsequent crash. Minsky viewed banking crises in a domestic context, Kindleberger extended the perspective to an international context; he noted that the failure of a bank in Ohio led to shortages of credit in Hamburg and in Scandinavia. Each of the three editions of Manias after the first followed a wave of banking crises, which often occurred together with a currency crisis when the prices of the currencies of the indebted countries declined sharply and borrowers in these countries defaulted on their foreign loans. The second edition was published in 1989, a few years after the governments of Mexico and ten other developing countries defaulted on their US dollar loans. The prices of their currencies declined sharply and many of the banks in these countries failed; the credit-worthiness of several of the largest US banks was tested by their losses on their loans to the governments in these countries. Hundreds of US banks and thrift institutions failed at the same time. The second wave of banking crises was in the early 1990s and centered on Japan; the prices of securities and real estate declined sharply. Finland and Sweden experienced financial crises at the same times; asset prices and prices of their currencies declined, and banks failed. The fourth edition appeared in 2000, soon after the Asian Financial Crisis; once again was that the prices of the currencies of the indebted countries declined and the banks failed. One of the self-imposed constraints as the fifth edition was being prepared was not to change any substantial arguments that were in the fourth edition. Boxes were introduced as contemporary examples of the themes in the several chapters. The boom in prices of stocks in the 1990s brought forth Enron, MCIWorldCom, and numerous other firms when corporate management was seduced by ready availability of cheap credit to adopt practices that were obviously corrupt. When the credit supply increases at a rapid rate, the Bernie Madoffs of the world flourish because they can rely on the investment inflows for the cash to pay the interest on their outstanding indebtedness. But when the credit supply begins to increase less rapidly, some of them tumble into

bankruptcy because they can no longer rely on the cash from new loans to pay the interest on their indebtedness. The lenders forget that they should ask, 'Where will the borrowers get the cash to pay us the interest if we stop providing them with the cash in the form of new loans?' Kindleberger was one of the few economists of his generation who was skeptical of the case for floating currencies that had been advanced by Milton Friedman, Gottfied Habeler, and other giants of the professions in the 1950s and the 1960s. As the sixth edition was prepared for publication, the intuition was that there was a systematic relationship between increases in cross-border investment inflows to a country and increases in the prices of its securities and its currency. An extended box was introduced into the sixth edition about Iceland's experience between 2002 and 2008; a massive cross-border investment inflow had led to a sharp increase in the price of the krona and a nine-fold increase in stock prices. The investment inflow led to a massive surge in the domestic supply of credit that enabled households to splurge on their purchases of stocks. The Icelandic economy boomed; the country's imports and its trade deficit surged. After the supply of new foreign loans froze at the time of the Lehman crisis in September 2008, the price of Icelandic stocks declined by more than 90 percent and the price of the currency declined by 50 percent. Nearly every banking crisis in the last thirty years has been associated with a decline in cross-border investment inflows that led to a decline in the price of a country's currency. Every country that experienced a banking crisis had previously experienced an economic boom. These booms morphed into busts when the investment inflows slowed. One theme of the seventh edition is that the extensive variability in the prices of currencies, securities, and real estate that has been evident since the early 1970s has followed from the variability in cross-border investment inflows. An increase in cross-border investment inflows leads to higher prices for securities and currencies, and economic booms. Banking crises occurred when national currencies were anchored to gold in the nineteenth century. These crises are both more frequent and more severe when currencies are not anchored to parities because of the feedback from the increase in investment inflows to more rapid increase in the prices of securities and to the economic booms. The dramatic surge in US real estate prices after 2002 followed an increase in foreign purchases of US dollar securities. This view that the source of banking crises are the surges in cross-border investments challenges the dominant policy view that the banking crisis of 2008 followed from the wayward behavior of Countrywide Financial, Lehman Brothers, Northern Rock, et al. The financial establishment – the central bankers and the regulators – have mistaken the symptoms of the crisis for the causes. These firms create credit when they buy the IOUs of prime borrowers and subprime borrowers; they buy more mortgages when credit conditions are more expansive. The surges in the credit supplies follow from increases in investment inflows and from domestic monetary expansion. As this book goes to press in 2015, the dominant policy issue is when Greece will leave the European Monetary Union. The global financial crisis that began in 2008 and 2009 involved the United States, Britain, Spain, Ireland, Iceland, Portugal, and Greece. Iceland recovered quickly. By the beginning of 2015, each of these countries except Greece was growing at a rate between one or two percent. In contrast, the unemployment rate in Greece was above 25 percent. Five years of austerity in Athens had not led to a significant increase in the international competitiveness of the Greek economy. One advantage of a floating currency arrangement is that the decline in the price of a country's currency may facilitate a more rapid recovery from a financial crisis, much as in Iceland, since the demand for domestic goods and services increases as the country becomes more competitive. The Irish economy recovered relatively quickly from its banking crisis even though Ireland lacked its own currency; costs and prices in Ireland were more flexible downward than they have been in Greece. One dominant feature of a flexible exchange rate arrangement is that the differentials in interest rates on similar securities denominated in various currencies will change by larger amounts

than when countries are committed to retaining parities. The changes in interest rates in each country are motivated primarily by the intent of the central bank to manage monetary policy to achieve its domestic price level and employment targets. The changes in the differentials between the interest rates in one country and those in its trading partners have led to much larger cross-border investment inflows. These inflows lead to increases in indebtedness of those borrowers that are willing to pay the higher interest rates. In Ireland and Spain, these borrowers were involved in real estate while the government was the dominant borrower in Greece. When the inflows to Ireland and Spain slowed, real estate prices declined sharply, and many of the lenders to the buyers of real estate failed. When the inflows to Greece slowed, the government was unable to make both its payments for the purchases of domestic goods and services, and its debt service payments to its foreign creditors. The financial crisis in Athens was prolonged because the governments in Northern European countries continued to provide credit to the government of Greece because they wanted to avoid the political consequences of the country's exit from the European Monetary Union. The story of the nineteenth century is that banking crises occur when countries have anchored their currencies to gold. The story of the decades since the move to a floating currency arrangement is that banking crises are more severe and more frequent than when currencies are not anchored to parities. The variability of cross-border investment inflows is much larger when central banks are not constrained by the need to anchor their currencies to parities, since the differentials in interest rates and the changes in these differentials are much larger. These inflows induce economic booms as an integral part of the adjustment process; eventually one or several of the lenders recognize that the borrowers' indebtedness is too large or has been increasing too rapidly, and the slowdown in the inflows triggers the crises.

Kindleberger, Charles P.. Manias, Panics, and Crashes (p. 1-4). Palgrave Macmillan UK. Kindle Edition.

1 FINANCIAL CRISES: A HARDY PERENNIAL The years since the early 1970s are unprecedented in terms of the large changes in the day-to-day and month-to-month prices of commodities, currencies, bonds, stocks, and real estate relative to their long-run average prices. There have been four waves of banking crises; a large number of lenders in three, four, or more countries collapsed at about the same time as the prices of real estate and securities in these countries and the prices of their currencies fell sharply. Each country that experienced a banking crisis also had a recession as household wealth declined in response to the sharp fall in the prices of securities and real estate, and as the banks became much more reluctant suppliers of credit as their own capital was depleted. The Great Recession that began in 2008 was the most severe and the most global since the Great Depression of the 1930s. The first wave of banking crises was in the early 1980s when Mexico, Brazil, Argentina, and ten other developing countries defaulted on their $800 billion of US-dollar-denominated indebtedness. The second wave occurred in the early 1990s and engulfed Japan and two of the Nordic countries – Finland and Sweden; Norway had had a similar crisis a few years earlier. The Asian Financial Crisis that began in mid-1997 was the third wave; initially Thailand, Malaysia, and Indonesia were involved and subsequently South Korea, Russia, Brazil, and Argentina were impacted. The banking 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, because the preconditions in the months prior to these crises were so similar. The fourth wave began in September 2008 with the failure of Fannie Mae and Freddie Mac, the two large US-government-sponsored mortgage lenders and the collapse of Lehman Brothers a few days later; the debacle of these lenders were responses to the sharp decline in the price of US real estate that had started at the beginning of 2007. Britain, Spain, Ireland, and Iceland also were involved in the fourth wave; a year later the prices of the bonds of the Greek and the Portuguese governments fell sharply. Each of these waves of banking crises was preceded by surges in cross-border investment inflows, which led to increases in the prices of currencies and increases in the prices of securities and real estate in the countries that experienced these inflows. Thus the external indebtedness of these countries had increased for two, three, or more years prior to their crises. Moreover the domestic indebtedness of a group of borrowers also had increased at paces that often were two or three times higher than the interest rate. Usually these borrowers used the money to buy real estate – homes and

commercial properties. However, the first wave of surges in cross-border indebtedness involved the rapid growth in the US dollar indebtedness of governments and government-owned firms in Mexico and other developing countries throughout most of the 1970s; the major international banks purchased the IOUs of these borrowers. Japan was the key country in the second wave of banking crises that began in the early 1990s, real estate prices and stock prices had increased by a factor of five to six in the second half of the 1980s. At about the same time the prices of both securities and real estate surged in Finland, Norway, and Sweden. The third wave of surges in cross-border indebtedness that began in the early 1990s involved Mexico and several other countries in Latin America, and Thailand and its neighbors in Southeast Asia. Real estate prices in the United States, Britain, Spain, Ireland, and Iceland began to increase sharply from about 2003 until the end of 2006. The banks headquartered in Reykjavik were primarily involved in cross-border investment inflows to Iceland as a way to increase the amounts they could lend to Icelandic households and businesses, including many that they owned. Banks headquartered in Stockholm and Bangkok also sold their IOUs in foreign centers to obtain the funds that they could use to increase their domestic loans, because the

apparent cost was below the cost of selling their IOUs in their domestic markets. The domestic counterpart of the increase in cross-border investment inflows to these countries – and the increase in the net external debtor position of these countries – was that the indebtedness of a group of domestic borrowers surged. Thus banks headquartered in many countries sold their own IOUs in a foreign banking center so they could increase their domestic loans; in some cases the loans to these domestic borrowers were denominated in a foreign currency and the borrowers incurred the currency exposure. The indebtedness of these domestic borrowers increased at rates that were too rapid to be sustained; similarly the external indebtedness of these countries increased at rates that were too rapid to be sustained. Eventually one or several of the lenders became more cautious because the borrowers' indebtedness was increasing too rapidly relative to their incomes. When the indebtedness of a group of borrowers increases by 20 to 30 percent a year, the borrowers have an impeccable record for paying the scheduled interest in a timely way. Eventually their ability to increase their indebtedness slows, and the 'day of reckoning' occurs when one or several no longer have enough money 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 prices of currencies decline and often very sharply. When real estate prices decline, households are the first group to incur losses, since the market value of their homes – the most significant asset that most households own – declines. Some households default on their mortgage indebtedness, and the losses then revert to banks and other lenders. If these lenders fail, the losses then fall on their depositors and other creditors to the lenders unless the government intervenes to protect them from loss. When real estate and stock prices declined in Japan in the early 1990s, a large number of banks and other financial institutions failed. The fall in real estate and stock prices in Thailand in mid-1997 triggered declines in the prices of currencies and the prices of securities throughout Southeast Asia; recessions followed. However, there were no significant failures of US financial firms when US stock prices declined by 40 percent between 2001 and 2003, and the ensuing recession was brief and shallow. That the range of movement in the prices of national currencies since the early 1970s has been much larger than in earlier periods when currencies were not anchored to parities is not a surprise. The major surprise has been that the deviations between the market prices of currencies and the long-run equilibrium or average prices of these currencies has been much larger than when the currencies were anchored to parities. The transition from the Bretton Woods arrangement of adjustable parities for national currencies to one of floating exchange rates began in August 1971 when the United States abandoned the gold parity of $35 an ounce that had been established in 1934. The effort to retain a modified version of the adjustable parity arrangement that was formalized in the Smithsonian Agreement of 1972 failed early in 1973 and a floating currency arrangement was adopted by default. At the beginning of the 1970s, the dominant view was that the prices of the German mark and the Japanese yen might increase by 10 to 12 percent because the inflation rates in both countries had been below the US rate in the previous few years. Another surprise is that the prices of both the German mark and the Japanese yen increased much more rapidly than anticipated through most of the 1970s; then the prices of both currencies declined sharply in the first half of the 1980s, although not to the levels of the early 1970s. The prices of the Mexican peso, the Brazilian cruzeiro, the Argentinean peso, and of the currencies of many other developing countries declined by 30 to 40 percent or more in the early 1980s. The prices of the Finnish markka, the Swedish krona, the British pound, the Italian lira, and the Spanish peseta declined by more than a third in the last six months of 1992. The price of the Mexican peso declined by nearly 50 percent during the country's presidential transition at the end of 1994. Similarly the prices of most of the Asian currencies – the Thai baht, the Malaysian ringgit, the Indonesian rupiah, and the South Korean won – declined sharply during the Asian Financial Crisis in the summer and autumn

autumn of 1997. The price of the euro, the new currency that eleven members of the European Union adopted at the beginning of 1999, soon declined by 30 percent, and then increased by 50 percent beginning in 2002. The price of the Argentinean peso declined by more than two-thirds in the first few months of 2001. The price of the Icelandic krona fell by 50 percent in the last few months of 2008. These changes in the prices of individual currencies were much larger than those that were suggested by the differences between the inflation rate in a country and the inflation rates in its major trading partners. The 'overshooting' and 'undershooting' of national currencies were much larger than in any previous period. Moreover the changes in the market prices of commodities, securities, stocks, and real estate relative to their long-run average prices also have been much greater than in earlier periods. 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 reached nearly $2000 in the autumn of 2012. 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 in 1980 the price increased to $40 after the Iraqi invasion of Kuwait. The oil price reached nearly $150 in the early summer of 2008, and then declined below $50 and then increased to the range of $80 to $110. The number of bank failures during the 1980s and the 1990s was 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 prices of currencies 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, the failures of most banks and other financial firms resulted from systemic shocks that led to 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; initially they failed because of a surge in short-term interest rates relative to long-term interest rates. Hundreds of banks in the oil-producing and grain-producing states failed when the anticipation that the US inflation rate would continue to accelerate was shattered. Most of the banks in Japan failed in the early 1990s when the prices of Japanese real estate and stocks declined; their losses incurred were several times larger than their capital and virtually all these firms became wards of the government because there was an implicit guarantee that depositors would not lose money. Similarly, when the prices of the Mexican peso and the currencies of the other developing countries declined 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 who had liabilities denominated in the US dollar in part due to the massive revaluation losses they had incurred when the prices of their own currencies declined. Similarly, many of the banks in Finland, Norway, and Sweden went bankrupt when the prices in their real estate and stock markets declined sharply in the first half of the 1990s, after very large increases in the previous four and five years. Most of the Mexican banks failed at the end of 1994 when the price of the Mexican peso fell by 50 percent. In the same way most of the banks in Thailand, Malaysia, and South Korea, and several of the other Asian countries – except for Hong Kong and Singapore – failed 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 in the banks so they could remain open and their depositors would not incur losses. In 2008 most of the top US investment banks were wiped out or forced to seek a stronger merger partner. The British government 'nationalized' Northern Rock, the largest mortgage lender in the country in September 2007, and became the dominant shareholder in the Royal Bank of Scotland

as it provided massive amounts of new capital to the bank. The Irish government made extensive investments in the six largest banks in the country in the effort to keep them from closing. 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 to remain in business. The US government made a massive investment in Citibank. The Dutch government provided extensive capital to ING, the insurance–banking conglomerate. These banking crises resulted from the sharp declines in the prices of real estate and securities and from the sharp declines in the prices of currencies. The costs of these crises were 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, the slowdowns in the rates of economic growth, the increases in unemployment and in the output gaps in each country. The massive number of bank failures, the large changes in the prices of currencies and sharp variability in the prices of securities 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 US dollar price of gold surged because some investor bought the precious metal on the basis of 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 purchased gold because its price was increasing – and its price was increasing because investors were buying more of this commodity. 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. 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 because the prices of both types of securities declined at a time when the goods price level increased. 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. The President of Citibank said 'countries don't go bankrupt'. The borrowers in these countries had a stellar record for paying the interest on their loans on a timely basis. Then in late October 1979 the Federal Reserve adopted a sharply contractive monetary policy; interest rates on US dollar securities surged. The US dollar price of gold peaked in January 1980 and then began to decline as inflationary anticipations were reversed. The price of the US dollar surged and continued to increase for five years. The sharp increase in interest rates on US dollar securities meant that the borrowers in Mexico and other developing countries defaulted on their indebtedness denominated in the US dollar, because their interest payments surged and they could no longer rely on money from new loans to pay the interest on their outstanding loans. Moreover, the real rates of return on US dollar bonds and US stocks averaged more than 15 percent a year in the 1980s and the 1990s as the annual inflation rates declined and the prices of these securities surged. The increase in real estate prices and stock prices in Japan in the 1980s of several hundred percent was associated with a boom in the economy; Japan as Number One:

Lessons for America1 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 other European countries. The Japanese banks owned both real estate and stocks, and as the prices of both types of securities increased, bank capital soared. Seven or eight of the ten largest banks in the world were headquartered in Tokyo or in Osaka. Then at the beginning of the 1990s real estate prices and stock prices in Japan crashed. Within a few years many of the leading Japanese banks and financial institutions were broke, kaput, bankrupt, and insolvent, and remained in business because of an implicit government guarantee. A striking story of

incur the costs associated with listing their shares for trading on the New York Stock Exchange because they believed that the market for their stocks would become broader 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 list their shares 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. Several of the newer firms traded on the NASDAQ would eventually became as successful as Microsoft and Intel and higher prices for their stocks were 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. The sharp increase 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 rate 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 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 US growth rate. 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 because the US economy seemed sluggish, and house prices increased three times as rapidly as the general price level. Much of the increase in home prices occurred in sixteen states that account for 50 percent of US GDP. The sharp increase in property prices led to 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 due to fires, storms, the widening of highways and similar factors. Part of the increase in demand was from investors who sought profits from the continued increases in real estate prices; the rate of increase was much higher than the interest rate. The sharp decline in the price of residential real estate and the debacle in the prices of mortgage-related securities after 2007 has led to many US-centric books that explain the surge in prices in terms of the failure of regulation or the greed of the bankers or the vagaries of new financial instruments. In part the large number of crashes in national financial markets in the last thirty years reflects that there are more independent countries, each with its own central bank. Nevertheless despite the lack of perfect comparability across periods, the conclusion is unmistakable that banking crises have been more extensive and pervasive. One of the themes of this book is that the surges in the prices of real estate and stocks that often occur in several different countries at the same time have similar causes. Thus the sharp increase in the external indebtedness of developing countries in the 1970s occurred because the major international banks rapidly increased their loans to borrowers in these countries; these banks believed that commodity prices would continue to increase and that the growth rates in these countries would remain high and the revenues of their governments also would continue to increase. The likelihood that the sharp increases in real estate prices in the United States, Britain, Ireland, Iceland, Spain, South Africa, and several other countries that began in about 2002 and the subsequent crashes were independent events seems low; increases in real estate prices in each of these countries followed from rapid increases

in cross-border investment inflows and the domestic supply of credit in both. 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 mortgage loans, which was greater than the supply of prime loans and the mortgage brokers ginned up a large increase in the supply of subprime mortgages. A second theme is that the likelihood that the four waves of banking crises over a thirty-year period were unrelated events is low. The banking crisis in each country was preceded by a surge in the supply of credit. Several of these banking crises laid the basis for the subsequent surge in the supply of credit to borrowers in a different group of countries. The financial crises in the developing countries in the early 1980s had a knock-on effect that contributed to the three-fold plus increases in the prices of real estate and of stocks in Japan in the second half of the 1980s. The banking crisis in Tokyo in the early 1990s led to an increase in cross-border investment inflows to Thailand and Malaysia and Indonesia, which led to the increases in the prices of real estate and of securities in these countries and to higher prices of their currencies in real terms. When Thailand and its neighbors experienced their banking crises, investment flows to the United States expanded rapidly as the borrowers in these countries repaid loans; the price of the US dollar increased and the US trade deficit increased by $150 billion. The cross-border investment inflows led to ever-higher prices for securities, as if the money 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. Moreover the price of the country’s currency moved upward unless the authorities intervened to limit such increases – and even then the price of the currency often increased in real terms, that is after adjusting for the difference between the inflation rate in the country and the comparable rates in its trading partners. The third theme centers on the source of credit, and the relation between the monetary authorities – the central bank in each country – and the banks and other private sector lenders. The policy response after every banking crisis is to apply additional regulations to the firms like Lehman and Countrywide and Northern Rock, as if they had been the villains of the crisis rather than the victims. Lehman et al. primarily are the channels for the distribution of credit; while they create credit when they buy more loans, they purchase more loans only if the monetary environment is expansive.

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Manias – especially macro manias – are associated with economic euphoria; business firms become increasingly upbeat and investment spending surges because credit is plentiful. In the second half of the 1980s Japanese industrial firms could borrow as much as they wanted from their friendly bankers in Tokyo and Osaka; money seemed ‘free’ (money always seems free in manias) and the Japanese went on both a consumption spree and an investment spree. The Japanese purchased ten thousand items of French art. A racetrack entrepreneur from Osaka paid $90 million for Van Gogh’s Portrait of Dr Guichet, at that time the highest price ever paid for a painting. The Mitsui Real Estate Company paid

$625 million for the Exxon Building in New York, even though the initial asking price had been $510 million; Mitsui wanted to get in the Guinness Book of World Records for paying the highest-ever price for an office building. In the second half of the 1990s in the United States newly established firms in the information technology industry and in biotech had access to virtually unlimited funds from the venture capitalists who believed they would profit greatly when the shares in these firms were first sold to the public. During these euphoric periods an increasing number of investors seek short-term profits from the increases in the prices of real estate and of stocks. Investors make down payments for the purchase of apartments in the pre-construction phase in the anticipation that they will be able to sell these apartments at handsome profits when the buildings have been completed, or even before. Then there is a shock – perhaps a change in government policy, an unexplained failure of a firm previously thought to have been successful – that leads to a pause in the increase in the prices of securities. Soon some of the investors who had financed most of their purchases with borrowed money become distress sellers because the interest payments on the money borrowed to finance their purchases are larger than the rental income on the real estate and the dividends on the stocks. The prices of these securities decline below their purchase prices and now the buyers are 'under water' – the amounts owed on the money borrowed to finance the purchases of these securities are larger than their current market prices. Their distress sales lead to sharp declines in the prices of the securities and a crash and a panic are likely to follow. The economic situation in a country after several years of mania-like behavior resembles that of a young bicycle rider who needs to maintain the forward momentum – if the bike stops moving forward, the rider becomes unstable and crashes. The analogy is that if the prices of securities stop increasing, they will then decline rather than remain more or less unchanged at the new and higher plateau. During the mania, the prices of real estate and securities increase, and they begin to decline immediately after they stop increasing – there is no plateau, no 'middle ground'. The decline in the prices of some securities leads to the concern that prices will decline further and that the banking system will experience 'distress'. The rush to sell these securities becomes self-fulfilling and so precipitous that it resembles a panic. The prices of commodities – houses, buildings, land, stocks, bonds – crash to levels that are 30 to 40 percent of their prices at the peak. Bankruptcies surge, economic activity slows, and unemployment increases sharply. There is a biologic regularity in the pattern in each of these manias even though there are differences in details. The increase in prices of commodities or real estate or stocks leads to euphoria among investors; household wealth increases and consumption spending climbs. There is a sense of 'We never had it so good'. Then the prices of securities peak and begin to decline. Some banking crises were preceded by a rapid increase in the indebtedness of one or several groups of borrowers rather than by a rapid increase in the price of a security. One theme of this book is that the cycle of manias and panics results from the pro-cyclical changes in the supply of credit, which increases rapidly in good times, and then when economic growth slackens, the rate of growth of credit declines sharply. The decline in the rate of growth of credit often triggers the beginning of the decline in the prices of currencies and securities. A mania involves increases in the prices of securities or real

estate or currencies or commodities in the present and the near-future that are not consistent with the prices of the same securities or real estate or currencies in the distant future. The forecasts that the price of oil would increase to $80 a barrel after the earlier increase from $2.50 a barrel at the beginning of the 1970s to $36 at the end of that decade was manic. During the economic expansions investors become increasingly optimistic and more eager to pursue profit opportunities that will pay off in the distant future while the lenders become less risk-averse. Rational exuberance morphs into irrational exuberance, economic euphoria develops and both investment spending and consumption spending increase. There is a pervasive sense that it is 'time to get on the train before it leaves the station' and the exceptional profit opportunities disappear. Security prices increase further and even more rapidly. An increasingly large share of the purchases of these securities is undertaken in anticipation of short-term capital gains and an exceptionally large share of these purchases is financed with credit. The banking crises that are analyzed in this book are major in size and in effect and most are international because they involve several different countries either at the same time or in a causal, sequential way. The term 'bubble' is a generic term for the increases in the prices of securities or currencies in the mania phase of the cycle that cannot be explained by the changes in the economic fundamentals. Surges in real estate prices and stock prices that occurred in the second half of the 1980s in Japan and in the early and mid-1990s in some of the Asian countries followed the pattern of a bubble; investors were buying real estate and stocks because their prices had been increasing, and their prices had been increasing because investors were buying these assets. The sharp increases in the US dollar price of gold and in the US dollar price of silver in the late 1970s were manic, but the increases in the price of crude petroleum in the same years were not; the distinction is that many of the buyers of gold and silver in that tumultuous and inflationary decade anticipated that the prices of both precious metals would continue to increase and that profits could be made from buying and holding these commodities for relatively short periods. In contrast many of the buyers of petroleum were concerned that the disruptions in oil supplies due to actions of the cartel and the war in the Persian Gulf would lead to shortages and increases in prices. Ponzi finance, chain letters, pyramid schemes, manias, and bubbles Ponzi finance, chain letters, bubbles, pyramid schemes, and manias are somewhat overlapping terms for non-sustainable patterns of financial behavior, in that the prices of securities today are not consistent with the anticipated prices at distant future dates. Ponzi schemes generally involve promises to pay an interest rate of 30 or 40 or 50 percent a month; the entrepreneurs that develop these schemes always claim they have discovered a new secret formula so they can earn these high rates of return. They make the promised interest payments for the first few months with the money received from their new customers attracted by the promised high rates of return. But by the fourth or fifth month, the money received from these new customers is less than the monies promised the first sets of customers and the entrepreneurs go to Brazil or jail or both. Bernie Madoff ran one of the largest Ponzi schemes ever, and his posted returns were in the range of ten to twelve percent – but steady. And he remained in business for more than fifteen years – probably long enough to merit the top position on the hit parade of longest-running Ponzi scheme. A chain letter is a particular form of pyramid arrangement; the procedure is that individuals receive a letter asking them to send $1 (or $10 or $100) to the name at the top of the pyramid and to send the same letter to five friends or acquaintances within five days; the promise is that within thirty days they will receive $64 for each $1 'investment'. Pyramid arrangements often involve sharing of commission incomes from the sale of securities or cosmetics or food supplements by those who actually make the sales to those who have recruited them to become sales personnel. A bubble involves the purchase of an asset, usually real estate or a security, in anticipation that the asset or security can be sold to someone else at an even higher price; the term 'the greater fool' has been used to suggest the last buyer was always counting on finding someone else to whom the stock or the condo apartment or the baseball cards could be sold. The term 'bubble' suggests that when the prices stop increasing, they are likely – indeed almost certain – to decline.

The term 'mania' describes the frenzied pattern of purchases, often an increase in prices accompanied by an increase in trading volumes; individuals are eager to buy before the prices increase further. Chain letters and pyramid schemes rarely have macroeconomic consequences, but rather involve isolated segments of the economy and involve the redistribution of income from the latecomers to those who were initially involved. Virtually every mania is associated with a robust economic expansion, but only a few economic expansions are associated with a mania. Still, the association between manias and economic expansions is sufficiently frequent and sufficiently uniform to merit renewed study. Some economists contest the use of the term 'bubble' because it suggests irrational behavior that is highly unlikely or implausible; instead they seek to explain the rapid increase in real estate prices or stock prices in terms that are consistent with changes in the economic fundamentals. Thus, for them, the surge in the prices of NASDAQ stocks in the 1990s occurred because investors sought to buy shares in firms that would repeat the spectacular successes of Microsoft, Intel, Cisco, Dell, and Amgen. Perhaps one or two of these firms could repeat these successes, but it was virtually impossible for all of them to do so, because that would have meant an unprecedented increase in the profit share of GDP to an exceptionally high level. THE POLICY IMPLICATIONS The appearance of a mania raises the policy issue of whether governments should seek to moderate the increase in prices to reduce the likelihood or the severity of the ensuing banking crisis. Virtually every large country has established a central bank as a 'lender of last resort' to reduce the likelihood that a shortage of liquidity would cascade into a solvency crisis; otherwise the shortage of liquidity would lead to declines in the prices of securities as investors scrambled to obtain cash, and some of the banks and other lenders that were not insolvent before the decline in the price of securities might tumble into bankruptcy. The practice led to the need for an international 'lender of last resort' that would assist countries in stabilizing the prices of their currencies and reduce the likelihood that a sharp decline in the prices of currencies because of a shortage of liquidity would trigger a large number of bankruptcies by borrowers with liabilities denominated in a foreign currency. During a crisis, many firms that recently appeared robust suddenly become bankrupt because the failure of a few lenders often leads to a decline in the prices of securities and a slowdown in the economy. When the prices of securities decline sharply, government intervention may be desirable to provide the public good of stability. During a banking crisis, the decline in prices of securities may be so large and abrupt that the price changes become self-justifying. At such times a lender of last resort can provide financial stability or attenuate financial instability. The policy dilemma is that if investors know in advance that governmental support will be forthcoming when the prices of securities fall sharply, investors will be less cautious in their purchases of securities and crises might develop more frequently. The role of the lender of last resort in coping with a crash or panic is fraught with ambiguity and dilemma. Thomas Joplin commented on the behavior of the Bank of England in the crisis of 1825: 'There are times when rules and precedents cannot be broken; others, when they cannot be adhered to with safety.' Breaking the rule establishes a precedent and a new rule that can be adhered to or broken as occasion demands. In these circumstances intervention is an art rather than a science. The general rules that the state should always intervene or that the state should never intervene are both wrong. This same question about the wisdom of intervention reappeared with whether the US government should have rescued Chrysler in 1979, whether the State of New York should have rescued New York City in 1975 and whether the federal authorities should have rescued Continental Illinois Bank in 1984. (Continental Illinois failed, although the depositors in the bank were made whole because they were covered by government-sponsored deposit insurance.). Similarly, should the Bank of England have rescued Baring Brothers in 1995 after the rogue trader Nick Leeson in its Singapore branch office had depleted the firm's capital through hidden transactions in

option contracts? The question appears whenever a group of borrowers or banks or other financial institutions incurs such massive losses that they are likely to be forced to close, at least under their current owners. The United States acted as the lender of last resort during the Mexican financial crisis at the end of 1994. The International Monetary Fund acted as the lender of last resort during the Russian financial crisis of 1998, primarily after prodding by the US and German governments. Neither the United States nor the International Monetary Fund was willing to act as a lender of last resort during the Argentinean financial crisis at the beginning of 2001. The conclusion of Charles Kindleberger's The World in Depression, 1929–1939 was that the 1930s depression was wide, deep, and prolonged because there was no international lender of last resort.2 Britain was unable to act in that capacity because it was exhausted by World War I, obsessed with pegging the British pound to gold at its pre-1914 parity, and groggy from the aborted economic recovery of the early 1920s. The United States was unwilling to act as an international lender of last resort; few Americans had thought through what the United States might have done if it had chosen to act in that role. (The responsibilities of an international lender of last resort are analyzed in Chapter 13.) The monetary aspects of manias and panics are important and are examined at length in several chapters. The monetarist view – or at least one monetarist view – is that a mania would not occur if the rate of growth of the money supply were stabilized or constant. Many of the manias are associated with the surge in the growth of credit, but some are not; a constant money supply growth rate might reduce the frequency of manias but is unlikely to consign them to the dustbins of history. The rate of increase in US stock prices in the second half of the 1920s was exceptionally high relative to the rate of growth of the money supply, and similarly the rate of increase in the prices of NASDAQ stocks in the second half of the 1990s was exceedingly high relative to the growth of the US money supply. Some monetarists distinguish between 'real' banking crises that are caused by the shrinkage of the monetary base or high-powered money and 'pseudo' crises that do not. The banking crises in which the monetary base changes early or late in the process should be distinguished from those in which the money supply did not increase significantly. Many of the surges in the prices of real estate and of stocks since the 1970s have resulted from cross-border investment inflows; the banking crises occurred when these inflows slowed. The earliest manias discussed in the first edition of this book were the South Sea and Mississippi bubbles of 1719–20. The earliest manias analyzed in this edition are the Kipper- und Wipperzeit, a monetary crisis (1619–22) that occurred at the outbreak of the Thirty Years War, and the much-discussed 'tulipmania' of 1636–37. The view that the trade in tulip bulbs in the Dutch Republic constituted a mania followed from widespread recognition, even at the time, that exotic specimens of tulips are difficult to breed, but once bred propagate easily – and hence eventually their prices would decline sharply.3 The early-historical treatment focuses on European experiences. The most recent crises covered in this edition center on the real estate markets in the United States, Britain, Ireland, Spain, and Iceland that began in 2008. The concentration on the financial crises in Britain in the nineteenth century reflects both the central importance of London in international financial arrangements and the abundant writings by contemporary analysts. In contrast, Amsterdam was the dominant financial power for much of the eighteenth century, but events there are slighted because of the difficulties in accessing the Dutch literature. The waves of surges in the supply of credit and the subsequent banking crises since the mid-1970s suggest that these market events have become more global than in the past. Most of the countries that have experienced surges in the supplies of credit that led to sharp increases in the prices of real estate and securities also experienced increases in cross-border investment inflows. These inflows led to increases in the prices of currencies unless they were anchored to parities and to increases in the prices of securities. Each country experienced an economic boom – 'the times could not be better'. Perhaps because of the increases in the prices of currencies, the upward pressures

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