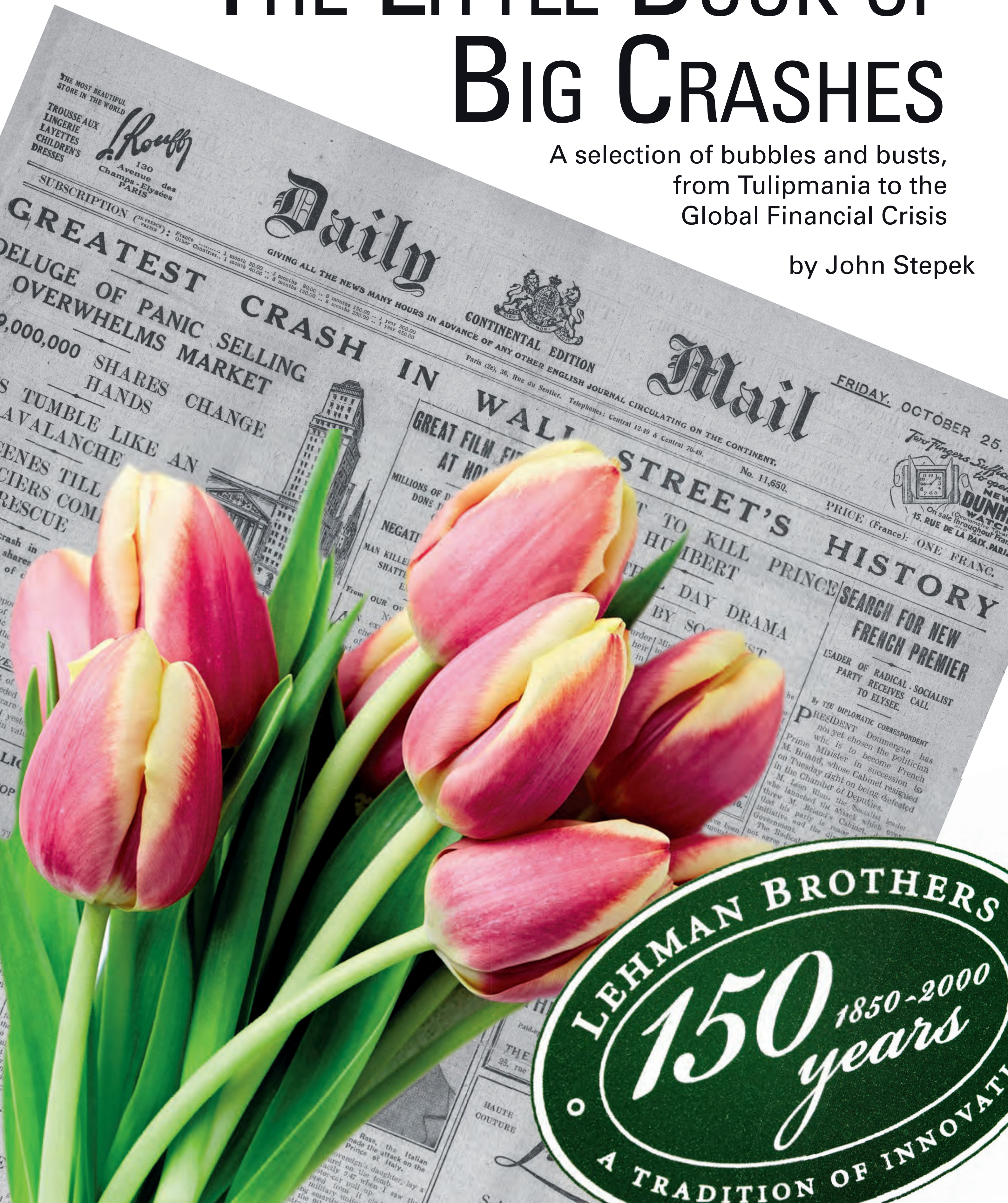
An exclusive report for readers of

MONEYWEEK

The Little Book of Big Crashes

A selection of bubbles and busts, from Tulipmania to the Global Financial Crisis

by John Stepek



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Foreword

Welcome to MoneyWeek's Little Book of Big Crashes.

As I write this foreword, the world is in the midst of what will go down in history as the worst economic crisis we've seen since the 1930s. That's quite a statement, given that it's been less than 13 years since we went through a crisis – the global financial crisis of 2007 to 2009 – that was also viewed as the worst such event since the 1930s.

But unfortunately, much as I wish it were the case, it doesn't look as though that's going to prove hyperbolic. The coronavirus outbreak has triggered a very unusual collapse in both supply and demand. Quite apart from the direct human cost of the pandemic, we will be living with the economic consequences for years, if not decades.

Yet while many aspects of the coronavirus havoc are unique to living memory, there are echoes of past crashes and crises. So to put it into some context, we've pulled together a collection of other major crashes in history – some well known, others that you may not be so familiar with. Here you'll find brief discussions of everything from Tulipmania to the Great Depression to the 1994 Bond Market Massacre (never heard of it? There's a good reason for that). There were many others in more recent history that we could have included (notably the 2000 tech bubble and bust), but for this edition we wanted to focus largely on crashes that few readers would have lived or worked through.

For context, these pieces were originally written in 2017, as part of the daily Money Morning email (which you can sign up for at moneyweek.com/moneymorning). I've updated where necessary and made a few tweaks, but they are mostly as they were written at that point. I hope you find the book stimulating and useful, and can perhaps pick up some lessons as to what to expect as the crisis we are facing today unfolds.

Did I learn anything from this romp through history? Every crash is different. But I'd say there are three main takeaways.

1. Governments and central bankers won't admit it, but busts almost always come about as a result of the bubble that precedes them. The bubble is usually seen as a rational "new era"; the bust is an irrational panic.

2. Stability breeds instability: we assume that tomorrow will be the same as today and yesterday. As a result, we take increasingly reckless risks until the system is so vulnerable that it takes very little to tip the house of cards over.

3. The seeds of the next crisis are sown during the last: regulation designed to prevent the mistakes that led to the previous boom will spawn the shadow banks (lending institutions designed to exploit loopholes in the system, basically) and distorted incentives that lead to the next one.

What will come of the current crisis? The actions taken by global governments are already extraordinary in terms of scale. But as you read through this book, you'll realise that official action is often unprecedented in scale. The crash has been breathtaking and panic-inducing. But they always are.

And if you're looking for a message of hope, then it's this: just like every previous crisis, this too shall pass.

John Stepek

Executive Editor

MoneyWeek

Chapter 1

1636: Tulip mania – the legendary bubble

Let's start with the closest thing we have to a mythical bubble. It's the one that everyone's heard about. Moreso even than the South Sea bubble or the Great Depression or the dotcom bust, it's the 'go-to' comparison for anything that looks remotely like a feeding frenzy in the markets. We're talking, of course, about tulip mania.

Journalists exaggerating? Fake news is nothing new

Tulip mania is a legendary bubble, and I mean that quite literally. No one disputes that the South Sea bubble happened, or that the Great Depression was real. But uncovering the reality behind the tulip bubble is quite a bit trickier. The basic story is that tulips were beautiful and rare. Merchants in Amsterdam snapped them up as luxury items. Prices soared from roughly the early 1630s, peaked in 1637, and then crashed. People lost fortunes in the process, with some having traded entire houses for a single tulip bulb. A classic mania, in other words.

Charles Mackay tells the story wonderfully in his Memoirs of Extraordinary Popular Delusions and the Madness of Crowds. But as you delve further into the background, it seems fair to say that Mackay might have egged the pudding a bit in order to tell a better story (it turns out that they had 'fake news' all the way back in 1841). At the same time, all of the modern revisionist takes that claim there was no tulip bubble at all seem to be exaggerating too. The headlines on such pieces claim to 'debunk' the idea of tulip mania entirely. But in fact, most only argue that while tulip prices did surge then crash, it didn't cause a huge recession. In other words, the bubble wasn't as epic as its legend suggests.

That's a fair point, but it's not a groundbreaking one. Few argue that tulip mania was up there with the global financial crisis in terms of its fallout. But as a beautiful example of how people can ascribe ludicrous valuations to just about anything, it takes some beating.

What really happened during tulip mania?

Most of my understanding of what went on has been informed by The Dutch Tulip Mania: The Social Foundations of a Financial Bubble, an excellent paper from 2012 on the topic, by A. Maurits van der Even at Virginia's College of William & Mary.

Tulips came to western Europe from Turkey in the 16th century. They were popular from day one and wealthy collectors were always willing to pay a premium for the best ones. As van der Even notes, a book published in 1614 - well before the 'bubble' phase started - displays a tulip alongside the proverb "a fool and his money are soon parted." One reason that prices were high is because no one knew how to breed the most popular strains with consistent success, and so supplies of the most popular bulbs were limited – often controlled entirely by one breeder. So there was always a healthy market for attractive tulips. But the tulips were usually bought and sold while in bloom.

However, by the 1630s, sales of tulips were happening all year round, which meant that people were buying bulbs without knowing how the flowers would turn out. As a result, a futures market developed. "People began to sell bulbs for which they had signed a contract but which they did not yet have in their possession." In effect, you could spread bet on the price of tulip bulbs – taking a punt on the price without owning the underlying asset. "Not surprisingly," says van der Even, "it took little time for speculators to enter the market."

At the time, Amsterdam was thriving and the middle class was growing, so there was plenty of money flying around. Also, the tulip market was not highly regulated – no guild controlled the trade. So it was easy for interested parties to get involved. As the excitement grew, access was made ever easier. By the end of 1636, it was possible to trade generalised (rather than specific) bulbs in bulk contracts. That meant anyone could speculate, almost regardless of what they actually understood of tulips. This, says van der Even, appears to have set off the real bubble phase, which lasted for about three months. Between December 1636 and February 1637, "some individual bulbs were sold as many as five to 10 times, and increased more than ten-fold in price." Demand even for unremarkable bulbs soared.

And then, prices simply collapsed. Van der Even argues that it quickly became clear to most participants that the surge in the price of the bulbs - ordinary ones in particular - was unsustainable. And even at the peak of the boom, the network of buyers and sellers involved was small. So once one bulb auction failed, news spread fast. Those who had agreed contracts to buy tulips in the future either ripped them up or paid a fraction of the value. Records show that one cancelled contract was bought out for around 10% of the agreed price, for example.

Mackay's claim that "the commerce of the country suffered a severe shock" is untrue, it seems. The bursting of the tulip bubble had little impact on the Dutch economy and most of the tulip buyers were well off and had at worst, only lost paper profits - not entire houses as the legend has it. Far more consequential was the plague that swept Holland in the early

1630s. For example, house prices along the Herengracht canal fell by nearly 50% between 1632 and 1634, and roughly 14% of Amsterdam's population died in 1636 alone. But none of that had much to do with tulip mania, except perhaps to add to the general feverish atmosphere of the times.

Tulips were all about trust

So what can tulip mania really tell us? Perhaps the most interesting aspect is what it says about the role of trust and technology in the financial system. In 1720, Dutch writers and artists were comparing the South Sea Bubble (see the next chapter) and the resulting international financial crisis to tulip mania. Futures contracts were depicted as tools of the devil. So while tulip mania might not have had a huge economic impact, it certainly left its mark on the collective memory.

Obviously, there was a moralistic element to all of this (unsurprising, given the times). Some people in the tulip trade at the time were angered that the 'real' value of the flowers was being corrupted by the financialisation of the market. People who had no love or respect for flowers were treating them like commodities. This notion – that money can sometimes divorce itself from the 'real' utility of an object, and do so in a way that devalues both the object and those who want or need that object – is hard to pin down, but it's important, I think.

Trust is the glue that binds us together as a society. Money serves as a substitute for trust. It's a social technology that enables people who don't know each other very well to do business together. But when you start playing around with the value of money, or you introduce more complex forms of finance – which always means added borrowing – into the equation, or when money itself appears to be the end goal, rather than a tool for easing the process of exchange, then you start to erode that trust. I'm still firmly of the belief that the fallout from 2008 isn't so much about inequality or the 'left-behinds' (though I'm not denying that's part of it) as it is about the shaking of our collective faith in the financial system. It's hard to exaggerate how dangerous it is to allow that trust to be undermined.

This is not to say that financial innovation is a bad thing per se. Derivatives (which is what a future is) are ultimately a form of insurance, as well as a tool for speculation – they have a vital role to play in managing risk. But when it's taken to its extremes - and it always is - the fallout leaves people feeling disorientated, rudderless and angry. Particularly if they feel they've been ripped off in the process, which the finance industry has the unfortunate habit of doing with monotonous regularity.

If you don't have faith in the integrity of the system in which you operate, then your propensity to take risks - your 'animal spirits', as economist John Maynard Keynes might have put it - will be horribly suppressed. And no amount of slashing interest rates can rectify that psychological damage. In short, tulip mania tells us a lot about people. And that's why it's endured as the bubble archetype, even the consequences of its bursting were a lot less extreme than those of many of its successors.

Chapter 2

1720: The South Sea Bubble

If tulipmania is the founding myth for bubbles, the South Sea bubble of 1720 is the great-grandaddy. It is one of the most fascinating bubbles in history. It's distant enough to be romantic rather than hellish (unlike the Great Depression, say), and there's an impressive list of supporting characters, from Isaac Newton to rogue Scots financier John Law. There are a lot of moving parts to this one, so I'm going to give you a very simplified overview.

Here's the quick version of what happened. The South Sea Bubble didn't happen in isolation. The backdrop to the bubble is the War of the Spanish Succession (1701 - 1714) which left France and England (and many other European nations) carrying hefty national debts. The bubble arose out of the way that nations refinanced their debts. In effect, listed companies were promised monopolies on trade with the New World, in exchange for taking on the national debt. This cut the interest payments on the national debt. An investor who bought shares in these companies would accept a lower dividend payment if it came with a side order of dreams about all of those juicy New World profits. The shares were also far more liquid than the government bonds they effectively replaced.

The South Sea Company was formed in 1711. It was promised a monopoly on trade with the Spanish colonies in South America, and took over part of Britain's national debt. The South Sea Company was never very successful at its commercial business (it didn't even embark on a trade voyage to the South Seas until 1717). But it was very good at promoting its own shares and currying favour with government.

Inspired partly by the spectacular profits being made across the Channel in France by speculators in Law's Mississippi Company, in 1720, the South Sea Company offered to take over the rest of Britain's national debt. The terms of the conversion are complicated (plenty of its investors didn't really understand them either – which was deliberate on the part of the company management). But various features created a self-reinforcing spiral: in effect, the higher the share price went, the more the stock was worth (because a higher share price made it cheaper to buy out the bondholders). The stock could also be bought on margin (i.e. with borrowed money) – the company would lend money to shareholders against its own shares. So again, the higher the share price went, the more money existing investors could borrow to buy more shares, driving the price higher, and so on.

So what happened? In January 1720, South Sea Company stock was worth £128 a share. By the end of June that same year, the shares hit a peak of more than £1,000 a piece. According to economic historian Hans-Joachim Voth, "from the minimum attained during the 12 months prior to the peak, the share price increased by 843%. This compares with a rise of 188% for Amazon... during the Nasdaq bubble" (of 2000). And then of course, it all went horribly wrong.

As with most bubbles, the precise cause of the turning point is not clear. But there were plenty of potential triggers. In France, for example, the Mississippi Company was already on the turn, having peaked in spring. Meanwhile, in England, the success of the South Sea Company led to lots of copy-cat "joint stock" ventures being launched – in modern parlance, there was a flood of IPOs (Initial Public Offerings). This led to new legislation – the Bubble Act – being passed by parliament. This effectively prevented new "joint-stock" companies from being formed unless they received parliamentary approval.

Ironically (given the outcome), this was driven through by the South Sea Company itself, which didn't like the competition for funds being generated by all the other joint-stock companies which were being launched in its wake (remember this when you see giant incumbents in new industries suddenly turning into ardent advocates for tougher regulation). Unfortunately for the South Sea Company, the resulting crackdown on speculation that followed the Bubble Act appears to have rattled investors who were already feeling vertiginous. The share price crashed, plenty of prominent people lost a lot of money (including, famously, Sir Isaac Newton), and an atmosphere of breast-beating and moralising took hold. That said, as Edward Chancellor points out in his classic history of financial bubbles, Devil Take The Hindmost (1998), "the depression which followed the collapse of the South Sea Bubble was neither long nor deep".

The rise of a new financial technology

There's a lot you could draw out of the bubble of 1720 (it also extended to the Netherlands and beyond, for example, which as professor Robert Shiller – an expert on boom and bust – argues, made it the world's first global stock market crash). But one point I find of particular interest is the role of the South Sea bubble in the evolution of financial markets. Most bubbles involve some new technology or infrastructure. The railroad bubble, the internet bubble – you could even consider the roaring 1920s as being partly an automobile bubble. But they also involve new financial technologies: investment trusts (in the 1920s); portfolio insurance (the crash of 1987); and the elaborate usage of derivatives and debt slicing and dicing in the lead up to the 2008 crisis.

You could argue that the South Sea Bubble was about "the New World" or trade. But in fact, it was really about the evolution of publicly-traded stocks. As Chancellor points out, the South Sea scheme was far from the only bubble company around at the time. New joint-stock companies were listed every month, promoting visions including a design for a machine gun, and a patented method for storing live fish on board boats (so that they could venture further out to sea and still be sold fresh at the London markets when the boat returned). The total capitalisation of the London market rose 100-fold in the 25 years between 1695 and the bubble imploding in 1720.

To me, the closest modern day equivalent of all this is bitcoin and blockchain. In 2017, cryptocurrency bitcoin started the year valued at around $750 a coin and ended it at close to $15,000. As a result, plenty of speculators jumped on the bandwagon and started launching their own coins via ICOs (Initial Coin Offerings). People were winning and losing fortunes overnight, and there was a sense of hysteria about it all – and there were also plenty of sceptics and satirists, just as there were during the 1720 bubble.

And then the air went out of the bubble. Bitcoin has survived but many of the ICO coins are now moribund. There's an echo of 1720 here – indeed, notes Chancellor, just four of the 190 companies founded in 1720 survived. But in time, just as with 1720 and listed companies, we may look back on the late 2010s and think, "that was the dawn of a new asset class". As Matt Levine put it on Bloomberg: "Cryptocurrency might be to the 21st century what stock was to the 17th century: an administrative change in the bookkeeping for ownership of certain assets that over time completely transformed the economy and the world."

Chapter 3

1866: The Victorian Black Friday

"There has probably been nothing like it within living memory". That was The Times describing the events of "Black Friday" – May 11th, 1866. That day, a hugely important financial institution in the City – Overend Gurney – went bust, causing widespread panic. Here's a somewhat understated quote from that Sunday's edition of The Observer: "The great centre of banking business, Lombard-street [sic] and its approaches, was occupied during the day by crowds of persons who lingered in the neighbourhood of the principal banking and discount houses, rendering those thoroughfares all but impassable." What happened? This one requires a bit of back story, so bear with me.

Overend Gurney had its roots in East Anglia's biggest bank, which was set up by the Gurney family – wealthy wool merchants – in 1775. It was Britain's biggest "discount house". Let me just explain what that was. The key financial instrument of the day was the bill of exchange. Basically, that was an IOU – a promise by a borrower to pay a lender a set sum of money. If the lender then wanted their money before it was due, they could sell it to a discount house (who would buy the note at a discount). So the discount house might buy a £10 bill for £9.50, giving a discount rate of 5% (in effect, the interest earned).

Meanwhile, the Bank of England was still a private company, but it had a monopoly on currency issuance and it held the country's gold reserves. It also served as a discount house to other financial institutions. So if a company like Overend Gurney needed to raise funds at short notice, it could re-discount a bill of exchange with the Bank of England (in other words, it would sell the IOU it had already discounted to the Bank of England at a further discount). In some ways, the discount rate was like the Bank of England base rate of its day.

Overend Gurney served as both a bill broker (it matched up buyers and sellers of bills of exchange) and a discount house. It would take deposits from banks and use these to discount bills of exchange. In other words, it would borrow short-term money (deposits from the banks) and lend it out over the longer term (using the money to discount bills that would only be paid at a future date). If the banks wanted their deposits back, and a discount house had insufficient reserves, it would merely re-discount the bills with the Bank of England. So that was a nice profitable business.

There was just one problem. As a Bank of England paper on the topic notes: "The first half of the 19th century had been plagued with recurrent panics in the money market... following large credit expansions" (in other words, they had regular booms and busts, just like us). During these panics, the Bank of England would provide liquidity, but with a delay. The Bank had to keep the number of bank notes in circulation, in line with its gold reserves. When it wanted to provide liquidity, this rule (under the 1844 Bank Charter Act) had to be suspended. After a particularly nasty panic in 1857, the Bank got a bit worried. It felt that the City's financial institutions (including – or perhaps especially – Overend Gurney) were being less cautious than they should be, because they knew they could fall back on the Bank of England for support in an emergency if things went pear-shaped (this is what's known as 'moral hazard').

So in 1858, the Bank decided to make it harder for big institutions to use it as a discount house, in an attempt to force them to rely more on their own reserves. The press of the day expressed scepticism: neither The Banker nor The Economist felt it was a realistic policy, because if a big institution ran into trouble, the Bank would have to bail it out anyway (some banks were "too big to fail" even then). But the Bank went ahead.

How to run a good business into the ground

By this point, Overend Gurney was already over-reaching itself. The need to hold more of its own reserves reduced the profitability of the discounting business. Partly as a result of this, it began lending money to riskier projects. In 1859, it hired one Edward Watkin Edwards to expand its lending business. Edwards was badly incentivised. In effect, he got paid for making loans, not for ensuring that they'd get paid. So the investments he made and the business he wrote was of appalling quality, with dreadful eventual recovery rates (this of course, is exactly what happened in the sub-prime crisis that triggered the 2008 global financial crisis, where lenders were getting paid to write and package sub-prime mortgages without caring about their creditworthiness).

In 1860, the Bank of England raised its discount rate (i.e. it charged the likes of Overend Gurney a higher rate to borrow money). In retaliation, Overend tried to spark a run on the Bank of England itself. This failed - and it perhaps played at least a minor role in what happened next. By now the discount house was already losing £500,000 a year. And, to cut a long story short, by summer 1865 (when the partners decided to convert it into a limited liability company in an effort to limit their own losses), it was already insolvent. However, that only became apparent to everyone else in May 1866.

Amid growing concerns, a court ruling that prevented Overend Gurney from collecting debts owed to it by the Mid-Wales Railway Company, finally triggered a run on its deposits. The group asked the Bank of England for help. Bank representatives came over, looked at the books, and declared that "the firm was so rotten" that it would not assist. As a result, on the afternoon of May 10th 1866, a note was stuck on Overend Gurney's door saying: "We regret to announce that a severe run on our deposits and resources has compelled us to suspend payment". And the next day was Black Friday.

Why Overend Gurney didn't affect the wider economy

So what happened next? The Bank of England did what it had already been doing for a while - it bailed everyone else out. Over the weekend, it wrote to William Gladstone, the chancellor of the day, and warned him that the Bank had drawn heavily on its reserves to prop up the financial system. Gladstone suspended the 1844 Bank Charter Act, which meant the Bank would be able to issue notes unbacked by gold reserves, if needed. That in itself restored confidence to the market, and – unlike what happened with its spiritual descendant Northern Rock – the demise of Overend Gurney basically marked the end of this particular panic, rather than the start.

As the Bank of England research note on the topic points out, Overend Gurney had no real systemic impact because "its primary business was bill broking. It did very little screening of its borrowers... meaning that it lent to very few productive firms, meaning that the direct loss to the real economy of its failure was small." Eventually this gave rise to Walter Bagehot, the editor of The Economist from 1861 to 1877, outlining the principles of central banking in his book <u>Lombard Street: A Description of the Money Market</u>. In essence, Bagehot said that a central bank should always be ready to step in to sort out a liquidity crisis, but only by lending to quality companies and against quality collateral.

The biggest conflict in central banking - quell fear and you encourage greed

There are lots of echoes of the 2008 financial crisis here, but I think what's most interesting is what this incident shows us about the gradual evolution of the financial system. Ultimately, in a credit-based economy, there will always be a point at which someone finds themselves over-extended. If human beings were all rational actors, all the time this wouldn't happen. Because credit controls would be perfect and prices would always be right all the time.

But we aren't rational actors. We panic. And sometimes it's the panic that does the damage. That's why we want a lender of last resort. To stop the unnecessary panics. Why incur the costs of all that unnecessary damage, when a business is in fact perfectly solvent - it's just that the headless chickens around it have lost their nerve? A lender of last resort - a central bank - dampens fear when it threatens to overwhelm the system.

Easy, right? Not quite. Trouble is, it cuts both ways. A lender of last resort might dampen fear, but in so doing, it also amplifies greed. That's moral hazard. And try as it might to prevent that (concerns over moral hazard were a big worry for Mervyn King during the Northern Rock panic too), the very existence of the central bank proves to market participants that there's a safety net there. How can you prevent this? There's no easy answer. But I think we could mostly agree that in our current era of 5,000-year low interest rates and virtually limitless money-printing, we've probably erred too far in the direction of encouraging moral hazard. And ironically, it's the coronavirus crisis – in which these measures are in fact entirely justified – which may spell the end to this era.

Chapter 4

1907: JP Morgan to the rescue

October is a vintage month for stock market crashes. The crash of 1929 started in October. 1987 happened in October too. 2008 arguably kicked off in late September, but if you'd bought on 1 October that year, you'd still have been whimpering come the end of the month. A superstitious person might say "jinx". A statistician might say "nonsense". I say it makes for a good story – so let's take a look at another October classic, the Panic of 1907.

How financial technology helped to create the Panic of 1907

The Panic of 1907 (also known as the Knickerbocker Crisis, for reasons we'll see shortly) was "the first worldwide financial crisis of the 20th century", notes the US Federal Reserve's history website. As with many crashes, 1907 was part-assisted by a new financial technology. In this case, it was the trust (not to be confused with investment trusts, which helped cause 1929).

Trusts – like banks – took customer deposits. But unlike banks, they weren't heavily involved in the payments system (they didn't do much clearing of cheques, for example) so they didn't carry as much cash. They also loaned short-term money out to stockbrokers. They didn't demand collateral to back these loans, but the money had to be repaid by the end of the business day. Brokers would use this borrowed money to buy equities. The equities would then be used as collateral to secure an overnight loan from a bank, which would be used to repay the loan from the trust. (Banks were unable to lend directly to the brokers because they were not allowed to make un-collateralised loans). In effect, trusts were liquidity providers – they provided working capital for the broker to do their jobs. The trusts themselves got the money from deposits – they took savings from their customers, issued short-term loans to the brokers, and made money from the spread between the two.

So that's the technological backdrop. As for what had been going on in the run-up to October 1907 – the Dow Jones Industrial Average had peaked at 103 in January 1906. An earthquake devastated San Francisco in April that year. By July 1906, the market was down nearly 20%. It rallied in the second half of the year somewhat, but continued to slip steadily during 1907, and by the end of September 1907, stocks had already fallen by nearly 25% from that January 1906 high. So it was unquestionably a tricky time – similarly to the 2008 crisis, it didn't come out of the blue.

But the trigger for the actual panic came later that year, when a couple of speculators, F. Augustus Heinze and Charles W. Morse, tried to corner the market in a copper mining company called United Copper. Long story short, they used money from the banks they owned or controlled to bet on the share price rising. They miscalculated, the scheme collapsed, and the banks they were associated with suffered runs as depositors bailed out. These bank runs were ended by the New York Clearing House (basically a banking consortium that was there to maintain faith in the payments system - a local central bank of sorts).

However, More and Heinze were also associated with the Knickerbocker Trust.

Depositors panicked and yanked their money out of the trust too. In common with all trusts, it wasn't part of the banking system. So no one was willing to stand behind it and guarantee its customers' deposits. JP Morgan – the richest man in the world at that point – was asked to help out. But without being convinced of the trust's solvency, he wasn't willing to help. As a result, the run continued, and Knickerbocker collapsed on October 22.

Panic ensued. Customers who had thought their deposits safe, couldn't get them back. It was the Lehman Brothers moment of 1907. As Edwin Lefevre (journalist and author of Reminiscences of a Stock Operator, the biography of the stock trader Jesse Livermore) rather wonderfully put it in an article in 1908, "it is sad to want money and not get it. But to ask for your own money and not get it is the civilised man's hell."

How JP Morgan single-handedly saved the financial system

Depositors lined up outside other trusts. JP Morgan – realising that things were going pear-shaped – stepped in on October 24 to bail out the next-most vulnerable trust, Trust Company of America. But the damage was done – no one was willing to lend to anyone. The annualised interest rate on overnight loans had rocketed from 9.5% to 100%. In a quote from Reminiscences, Livermore – who made a fortune by shorting stocks through the crash – describes it as "a day I shall never forget... reports from the money crowd early indicated that borrowers would have to pay whatever the lenders saw fit to ask. There wouldn't be enough money to go around." In other words, it was a massive margin call (where investors and institutions who have bought stocks using borrowed money have to either put up more cash to cover their losses, or see their positions sold and their losses crystallised – which can of course lead to a spiral of further loss and further liquidation).

Livermore himself was sitting on massive paper profits. But it reached the point where he was concerned that he might be "unable to convert those profits into actual cash" if the panic went any further, because of the risk that the entire financial system would be ruined. Fortunately for everyone involved, JP Morgan stepped in at this point. In effect, he took charge, kept the banks open and lending, and spent the next few weeks fire-fighting. The Dow Jones eventually bottomed in mid-November 1907, at 53 – a 50% drop from the start of 1906.

In all, there are a lot of similarities to the crash of 2008. A problem in the shadow banking sector led to the near-meltdown of the entire financial system, and it took a series of fudges and bailouts, largely facilitated by Morgan, to bring it to a halt. (This later led to a great deal of scrutiny on Morgan as people started to question the wisdom of one man having that level of power, and of course, it amplified demands for the US to have a central bank, as Britain already did). The economy suffered badly too. If we hadn't seen the Great Depression occur a few decades later, then we'd probably still talk about the aftermath of 1907 in similar tones. In all, there was a nasty recession between May 1907 and June 1908, during which unemployment rose from under 3% to 8%, imports collapsed by 26% and industrial production cratered.

The frustrations of being early

There's a lot to learn from this particular crash. Like many of the others I've looked at here, you could write a whole book and still be leaving stuff out. However, there is one specific lesson I wanted to highlight for individual investors, contained in another quote from Livermore. Livermore made his first fortune in 1907 (then lost it pretty quickly afterwards, which was always his big problem). However, the money didn't come easy. All throughout 1906, he'd been aggressively bearish and expecting some sort of crash. Yet while the market did edge lower, it kept rallying and bouncing back and frustrating his expectations for an epic collapse.

In Reminiscences, he talks about the self-doubt that comes with being bearish too early: "The first time I traded because of a crisis that was still to come, I found that I had been using a telescope. Between my first glimpse of the storm cloud and the time for cashing in on the big break, the stretch was evidently so much greater than I had thought, that I began to wonder whether I really saw what I thought I saw so clearly." It's a useful lesson. Regardless of what's going on around them, equity markets seem to be the financial equivalent of exuberant puppies – always willing to expect the best from life. As a result, trying to predict the timing of any crash – despite the evidence all around of things going wrong – isn't easy for even the best speculators. That's why, for most investors, diversification is a better approach than market timing. It's not as much fun, true. But it won't leave you broke and suicidal in your 60s – as Livermore ended his days – either.

Chapter 5

1920/21: The depression that never was

It's time to turn to a financial crisis which remains surprisingly obscure given its magnitude. I'm talking about the depression of 1920 to 1921. It was a whopper. Double-digit deflation. Rampant unemployment. The cheapest valuations ever seen in US stockmarket history. And yet this is probably the first you've heard of it.

How the US stockmarket hit its cheapest level ever

Between January 1920 and June 1921, the US economy crashed. Depending on whose stats you use, consumer prices fell by around 16% – the sort of deflation that would have today's central bankers setting the printing presses to "infinity" then fleeing for the hills with a crate of gold and a shotgun. Unemployment rose from around 5% to as much as 11%. Gross national product declined by around 17%. It was the most dramatic slump ever seen in US history – not the deepest, but by far the quickest. The rate of business failures tripled, while corporate profits collapsed. The US stockmarket followed suit. The Dow Jones Industrial Average peaked at just under 120 on 3 November, 1919. It bottomed out on 24 August, 1921, at 63.9. In other words, it almost fell in half.

And the stockmarket also got cheap, by the way. Based on the cyclically-adjusted price/earnings ratio (Cape – which averages earnings out over a ten-year period to give a better picture of valuation), US stocks have never ever been cheaper (dating back to 1871) than they were during this depression. They were trading on a Cape of less than five at one point. So this was a serious economic crash. If it had continued, then it would easily rival the Great Depression in terms of magnitude and historical noteworthiness.

And yet, it didn't continue. By 1923, employment was back to healthy pre-crash levels. Industrial production – which had dropped by almost a third during the crash – surpassed its previous peak by the end of 1922. As for stocks, within a year of the bottom, the index was back above the 100 level. And by late 1924, it had surpassed its 1919 high. So what happened?

Was the 1920/21 crash simply a case of consumers going on strike?

Traditionally – due largely to economists Milton Friedman and Anna Schwartz – the Federal Reserve (the US central bank) gets the blame for the crash. Under this argument, the Fed raised interest rates rapidly in 1919 and 1920 to counter inflation, thus causing the crash. Naturally, under this argument, the Fed also saved the economy by loosening monetary policy after the crash. I don't have a lot of time for this particular interpretation. I'll explain why in a moment. But first I wanted to have a look at another view from Nobel prize-winning economist Robert Shiller (who also popularised the aforementioned Cape ratio).

In a recent paper on "Narrative Economics", Shiller espouses his idea that narratives have a much bigger impact on economies and financial markets than we give them credit for, and outlines a "grand narrative" that could have driven the 1920/21 crash and recovery. I'm not entirely sure I agree with Shiller's theory. People naturally think in terms of "stories", but the most compelling stories – the ones that might give rise to the sorts of booms and busts that stand out – tend to spring from economic "facts" (at least in the early stages). Narratives certainly exaggerate booms and busts, but it's a question of extent. The risk is that it's tempting to make the jump (one with potentially disturbing implications for free speech) of concluding that it's the stories that shape the events, rather than the other way around.

But let's put that aside for a moment. Shiller reminds us that there was an awful lot more going on in the years and months running up to the 1920/21 crash than just the Fed tinkering with monetary policy. There was World War I, obviously. There was the Spanish flu epidemic that killed more people than the war ever had. There had been race riots in the US. The murder of Czar Nicholas II and his family by Communist revolutionaries in June 1918 had sparked the first real "Big Red" scare in the US. And on top of all that, there was an oil price shock – US oil prices rose by more than 50% from mid-1919 to the end of 1920. Incidentally, one factor in the oil price shock was rising demand from a new-fangled transport technology – the motor car. One writer in the LA Times, notes Shiller, warned that "the nation's oil supply would be exhausted in 18 years." (Proving once again that smart investors never buy Malthusian arguments – they just rent them.)

In any case, Shiller argues that with this kind of backdrop, any one of these scary narratives would have been reason enough for consumers and businesses to hold back spending and investing. But the fundamental driving force was that many people believed that it was only natural for consumer prices to fall, now that the war was over. Meanwhile, those who were keeping prices high were decried as "profiteers" by populist US politicians. Shiller highlights one writer's comment in 1920: "The buying public... has reached the point where it refuses to pay war prices for articles." In conclusion, says Shiller, "perhaps the 1920-21 recession might be better thought of as the 1920-21 consumer boycott".

The best theory on why the crash of 1920/21 didn't turn into a catastrophe

Shiller frames this as "a possible narrative-based unconventional explanation" for the Depression. It's a compelling idea, and some of the period detail in the argument is fascinating. However, it does suffer from one big problem to my mind – which is that there's a much more obvious explanation. My core view of economics is essentially Austrian. So my sympathy lies with economist Jim Grant's take on the 1920-21 depression. In this view, the Fed is partly to blame. But not for raising rates. The real problem is that monetary policy was too loose prior to the crash.

As Edward Chancellor notes in a BreakingViews review of Grant's book on the topic, The Forgotten Depression, the US enjoyed a boom period right after the war ended. This "frenzied post-war prosperity" resembled "many more recent booms". Banks were lending carelessly and the financial system was becoming increasingly fragile, and there was plenty of conspicuous consumption by individuals, and conspicuous investment in trophy assets by companies. So the bust was a natural result of the prior boom – a pattern we've seen reflected over and over and over again in more recent boom/bust cycles, including 2007/08.

What differed was the response. The Fed didn't immediately slash interest rates or print money. In fact, it kept raising them even as unemployment picked up. "Factoring in the general decline in the price levels", notes Chancellor, "real rates topped 20%" (that is, interest rates after taking inflation into account). As a result, oversupply collapsed, and asset prices were allowed to fall to the point where, as Grant puts it, "inventories were low, gold was plentiful, and asset values were cheap". In other words, all of the resource misallocation of the boom had been worked off and the economy was lean, mean and ready to grow again as people were presented with genuinely attractive opportunities to profit and to put resources to work.

In other words, it's the opposite of the "zombie economy" solution, with the virtual outlawing of bankruptcy, that's been put in place since the global financial crisis of 2007 to 2009. Counterfactuals are tricky. But you do have to wonder if we'd still be speaking today about ideas such as "secular stagnation" and fretting about low productivity, if monetary policy hadn't been quite as forgiving. I'm not suggesting we needed to put 'real' interest rates up to 20%, or even to let the banks collapse. But a little less indulgence from the Fed every time the S&P 500 fell by more than 5% might have helped accelerate the economic healing process. And left us with rather fewer zombies choking up the arteries of the economy.

Chapter 6

1925/26: The Florida property bubble

The 1920s is of course, better known for what happened at the end of the decade than what happened at the beginning. But there's another significant crash that happened in the mid-1920s. Fallout from this collapse played at least some role in the Great Depression. And British readers will be pleased to know that it involves their favourite asset class – residential property. It's time to take a look at the Florida land rush of the mid-1920s.

How Florida became hotter than bitcoin

These days, Florida seems to be the butt of a lot of jokes. Lots of sunshine, lots of retired people, lots of tourists, lots of theme parks – the American equivalent of a giant, slightly tacky British seaside resort. It's not the worst analogy. In the early 1900s, Florida was also analogous to a contemporary British seaside resort – it was an exclusive destination, and only the well-heeled could afford to go there and kick back in the sunshine. (Of course, you couldn't catch malaria or get eaten by an alligator in Bognor Regis. But it was sunnier.)

In 1900, the population of Florida was around half a million people. The economy was mainly reliant on agriculture. And even ten years later, the population of Miami was still a mere 5,000. But by 1920, Florida was opening up. The population of the state had grown to nearly a million people. America's middle class was expanding fast. They had good jobs, decent pay, disposable income to buy consumer goods – and the spare time to go on holidays. More importantly, they also had access to a fast-growing new technology – the car – and highways to drive them on.

As Florida became more accessible, more and more people moved south looking for opportunity and a better quality of life. And gradually, land that had been practically worthless suddenly held all manner of possibility. A developer called Carl Fisher had already dredged out enough land and filled enough swamps to create the resort of Miami Beach. Then in 1921, a developer called George Merrick began selling lots in the west of Miami. They were a huge hit, and Merrick expanded fast. According to Rainbow's End: The Crash of 1929 by Maury Klein (an excellent book on the colour of the period, even if it doesn't discuss the causes of the crash in great detail), Merrick spent $3m in one year on advertising, and hired a gang of 3,000 salesmen and a fleet of buses to take potential buyers down to Florida from New York, Chicago, and as far away as San Francisco.

Florida wasn't booming in isolation – loose credit conditions and a generally healthy economy meant that land prices across the US were going up. But Florida was special. It had a great story to go with the boom. It was a freshly-accessible paradise by the sea, one that everyone wanted a piece of – and we all know what great stories do to human beings. They drive them into a frenzy. According to some reports, about two-thirds of real estate in Florida was sold by mail to gamblers who had never been to the state. Meanwhile, in the state itself, "binder boys" would show land to prospective buyers, who could effectively buy options on the land by paying a 'binder'. This was a non-refundable deposit, with the balance due in 30 days. But rather than pay the balance, the land buyer would often 'flip' the option for a profit to someone else. Floridian real estate – regardless of its quality – was worth a fortune. It was practically the bitcoin of its day. According to some sources, some lots in Miami could be bought and sold as many as ten times a day.

A truly biblical bursting of a bubble

As with all of these things, the Florida bubble ended badly. By 1925, Miami had 25,000 estate agents working out of 2,000 offices (I realise that merely describes the typical Home Counties high street these days, but that was a lot in 1920s America). Tales of fast fortunes and land that had gone for $22 an acre selling for $200 an acre, had lured in punters from all over America. But the supply of willing and solvent buyers was drying up, and newspaper reports in other states were warning of Florida land scams. Ohio even banned some companies from selling property in Florida. People who had bought "binders" found they were the ones left stuck with them when they couldn't find a greater fool to flip them to. As a result, they began defaulting in their droves.

Then in the late summer of that same year, the main railroad companies running into Florida stopped shipping anything but essential supplies to the state. The railway lines needed repairs, and they also needed to recover stacks of freight cars that were being used to store supplies. That left housebuilders stranded without supplies. That situation was only made worse when in January 1926, a schooner – due to be turned into a floating hotel – sank in the mouth of Miami harbour, blocking all access. Meanwhile, the winter was unusually cold – apparently central Florida even saw frost – which took the sheen off the "sunshine state" schtick.

By then, boom had well and truly turned to bust. In July that year, notes Klein, a writer for The Nation wrote: "The world's greatest poker game, played with building lots instead of chips, is over. And the players are now cashing in or paying up." To add insult to injury, in September, a hurricane swept through Miami and killed more than 400 people (Florida then suffered a smallpox epidemic too – it really was a rather biblical end to the bubble). For Florida, the Great Depression began early – the state's economy wouldn't recover again until World War II.

Of course, the rest of the country would catch up a few years later. Florida's only mild consolation was that it was little affected by the crash of 1929 – but only because it was already on its knees. However, what's interesting is that more recently, economic historians have started to dig out research which suggests that, while Florida was one of the hottest markets, the housing boom in the US was a nationwide phenomenon. It wasn't just Florida that saw its bubble burst in 1925/26. Foreclosures (repossessions) started to mount across the country from 1926 and construction started to turn down. So by the time 1929 arrived, household balance sheets were fragile. The first American property boom and bust may not have caused the Great Depression – but it certainly didn't help.

Chapter 7

1929: The Wall Street Crash and the Great Depression

In the months that followed the 2008 crash, the biggest fear for many – specifically the world's central bankers – was that we'd face a repeat of the Great Depression of the 1930s. And the current coronavirus crisis is arguably even worse than 2008 (although the causes and potential outcomes look different). So I'd like to take an extended look back at what actually happened in the lead up and aftermath of the 20th century's greatest economic catastrophe - the Great Depression. We'll start with where it all began, and take a quick romp through the Roaring '20s.

The Roaring '20s: from depression to Great Depression in less than a decade

The Roaring '20s started off in the same way as they ended – with a depression. Or rather, they began with the depression that never was. We covered the forgotten depression of 1920/21 in chapter 5, but we'll recap here, as it had a great deal of significance for the events that followed. In short, between the start of 1920 and the summer of 1921, there was a huge economic collapse in the US, and a stockmarket crash. The government of the day did almost nothing to stop it, and less than 18 months after it had began, it was over.

What caused it? It was partly due to a huge influx of workers, as more than a million soldiers re-entered the workforce at the end of World War I. The vast increase in the supply of labour made it harder for unions to bargain for higher wages. Consumers were also already primed for prices to fall – inflation had pushed prices higher during the war, and they expected them to fall back now that the war was over and trade disruption was over. However, whatever the precise causes, by the end of the 1921 crash, stocks were cheap (the Dow Jones Industrial Average almost halved in value between late 1919 and 24 August, 1921); prices in general had fallen hard (by up to a fifth on some measures); and wages had fallen too. It was a hard 18 months. But the widespread availability of inexpensive resources set the scene for a massive recovery.

Now, let's be clear – not everyone enjoyed a recovery (and some argue that this led to the deflationary undercurrents that would eventually result in the Great Depression). If you were a farmer, things got much harder after the war and stayed that way. That's because farmers had done well during the war, but as agricultural production recovered in Europe, there was less demand for their produce. Trouble is, by that point, they'd massively over-expanded to take advantage of wartime demand, and taken on a lot of debt to buy new land. With the war over, they now had too much capacity, and many were left in a precarious financial position. Indeed, during the 1920s, notes Gene Smiley of Marquette University on the Economic History Association website, "for the first time in American history, the number of cultivated acres actually declined as farmers pulled back from the marginal farmland brought into production during the war".

Coal miners had it tough, too, due to improving technology. Mechanisation was boosting supply, while a mixture of improved energy efficiency and competition from other fuel sources was hitting demand. Other traditional industries such as textile work were also under threat from automation. But overall, from 1923, America was on a roll.

The Roaring '20s: the rise of the American middle class and the stockmarket boom

It's hard to exaggerate just how advanced the US economy was compared to Europe. Mass production enabled mass car ownership. By the end of the 1920s, roughly 60% of American families owned a car. In the UK, by comparison, the figure was still below 20% as late as 1938. Access to cars and the expansion of roads to drive them on opened up new areas of the country (notably Florida, as seen in the previous chapter), creating booms in tourism, land prices, and the ever-expanding suburbs. Trucks competed with railroads to carry goods and commodities across the continent.

Electricity was spreading and demand soaring – indeed, electricity utilities (the ultimate in "boring" companies these days) were the "glamour" stocks of the era. By 1929, most US households had electricity. Communications technology was transforming industry and – alongside the car – enabling populations to spread out. By the end of the 1920s, more than 40% of all American households had a telephone, and even more had a radio, providing news, entertainment, and adverts for life-changing new household products, including fridges, washing machines, vacuum cleaners. The rising availability of consumer credit gave middle-class Americans the means to buy them.

And it gave them the means to buy something else too – stocks. Only around 16% of US households were invested in the stockmarket, but towards the end of the decade, those who were, increasingly used borrowed money to do so. On 24 August, 1921, at the bottom of the early 1920s crash, the US stockmarket – the Dow Jones Industrial Average – stood at 63.9. By the peak on 3 September, 1929, it had risen to 318.17. In other words, if you had invested $1,000 at the bottom, then by the top, you'd have nearly $6,000 (not including dividends). And of course, if you'd used borrowed money to do it, you'd have many multiples of that sum.

We'll talk about the stockmarket crash in more detail further on in this chapter. But as with many other unsustainable booms in history, it started with a market that was cheap, and thrived on an exciting set of stories about technological development. It was driven to over-confident excess by people who saw an opportunity to get rich quick, and in their haste, abandoned all concerns about the potential risks. The comedian Groucho Marx, who lost a fortune in the bust, said afterwards: "You could close your eyes, stick your finger any place on the big board and the stock you bought would start rising". Novel financial vehicles – in this case, investment trusts – were launched to take advantage of this enthusiasm for stocks and to direct more money into the market (and into the pockets of the financial industry). There was a huge amount of fraud, and insider dealing was rife.

And, of course, there was hubris. In 1928, Republican Herbert Hoover was elected president after his predecessor, Calvin Coolidge, decided against standing for another term (a rare example of a political leader who got out on time). In his speech accepting the nomination, Hoover said: "We in America today are nearer to the final triumph over poverty than ever before in the history of any land". Yet, within a couple of years, America would be dotted with squalid shanty towns bearing his name – "Hoovervilles". In a moment, we'll look at the stock market crash that signalled the start of that decline. But first, I want to take a look at an interesting little story from Britain which appeared to have huge significance at the time, but is now virtually forgotten – the curious tale of Clarence Hatry.

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The rise and fall of Clarence Charles Hatry

One of the features of a financial crash is that it's very rarely possible to pinpoint the exact moment at which things go pear-shaped, even with hindsight. Things that no one notices at the time are ferreted out in the future by academics keen to make a name for themselves. Meanwhile, things that seem important at the time go on to be almost forgotten. So here, I want to take a look at one such red herring – a tale of a lone businessman whose downfall was sometimes deemed to be the trigger for the Great Depression. In late 1929, Clarence Charles Hatry and several of his associates admitted to fraud. The event rattled markets across the globe, particularly in London. Indeed, when shares in the Hatry group of companies were suspended on September 20 1929, it sparked a crash in London share prices, just over a month before the far better-known Wall Street crash.

So who was Hatry, and what did he do? In The Great Crash (1955), JK Galbraith described Hatry as "one of those curiously un-English figures with whom the English periodically find themselves unable to cope". (What a fantastic turn of phrase, eh?). Hatry was the son of a successful silk merchant, and had taken over his father's business after leaving school. He had a varied and somewhat rollercoaster early career (both bankruptcy and speculative fortunes featured), but, basically, he bought and sold businesses, often building then selling conglomerates. Companies he ended up owning or having a stake in included Leyland Motors, Debenhams, and one of the first photobooth chains, Photomaton. He also ran a stockbroking business, which apparently ended up getting him on the wrong side of the then-governor of the Bank of England, Montagu Norman (more on that in a moment).

As Liaquat Ahamed notes in Lords of Finance (2009), Hatry was an outsider whose flamboyance did not go down terribly well with the establishment. He had a rooftop swimming pool at his house (which had once been the home of the economist David Ricardo) in London's Mayfair district, and owned a massive yacht, several racehorses, and a country house in Sussex. In some ways – including his use of financial engineering – he was a 'barbarian at the gate', well before that was a financial term. Anyway, Hatry had decided to have a tilt at the British steel industry. In 1929, he bought United Steel for $40m, with a plan to use it as a base from which to snap up and consolidate the steel sector. However, he struggled to raise the money. And then, in June, the bankers who were meant to be backing him, pulled out at the last minute.

There's an enjoyable account of Hatry in the memoirs of literary agent George Greenfield (A Smattering of Monsters). Hatry was Greenfield's first boss, and he encountered him well after his release from prison. Hatry argued that his backers had been unnerved by the election of a Labour government the previous month. He scrambled around for fresh funding, and apparently even approached the Bank of England for help. The Bank's governor, Montagu Norman, was something of a snob by all accounts, and probably didn't need an excuse to reject Hatry. But Hatry also reckoned that Norman bore a grudge against him because his stockbroking business had undercut Norman's own. In any case, he couldn't raise the money, and that's when he over-reached himself.

He issued fake securities in his existing companies, with the aim of using them as collateral to raise the money. But the plan failed. By early September, rumours were circulating that he had over-extended himself. His remaining backers called in their loans, and on September 18th, he confessed all to his accountant. His accountant contacted the authorities, and Hatry and three of his associates were taken into custody on Friday September 20th. By Monday, The Times was reporting on the "Hatry Crisis" and warning that "the total losses involved in the collapse will be very heavy." Indeed, relative to the size of the UK economy at the time, notes Ahamed, the scale of the fraud was equivalent to the

Enron scandal.

The Hatry Crisis

It was messy. Many of those who had lost money with Hatry had to pull money out of the US market to settle their losses elsewhere. That wasn't enough to trigger the crash, but it certainly gave the bears more ammunition. It wasn't just about the money – it was about confidence too, particularly among newly-fledged small investors. Here's a comment posted in The Spectator, the week after the scandal hit: "We shall best appreciate the true gravity of the collapse in the Hatry group of companies if we consider it less from the point of view of money losses – which are undoubtedly reparable – than from that of future relations between the stock exchange and the new type of investors. Nothing has been more remarkable in commercial and industrial finance since the War than the vast expansion of the investing public. The 'small man' has discovered the stock exchange. The shilling share is not beyond his purse."

Now that confidence was gone. On October 3rd, Philip Snowden, then UK chancellor, warned that the Wall Street boom was nothing but a "speculative orgy". And by the end of the month, Black Thursday, Monday and Tuesday had all come and gone, and the US market wouldn't recover properly until the 1950s. (We'll look at the collapse in more detail in the next section). As for Hatry – he was not a Madoff or a Maxwell – men who deliberately set out to systematically prey on others financially. Rather – like many leveraged speculators – he was someone who grew accustomed to sailing rather too close to the wind and then inevitably, capsized. But fraud is fraud, and in 1930, he was sentenced to 14 years in prison (he ended up serving nine). By that time, of course, the Depression was already setting in.

What we can learn from the Hatry Crisis

So did Hatry cause the Great Depression? Of course not. There are scenarios in which

Hatry could have been bailed out, or in which his scheme might have worked. And you could almost argue that the Hatry collapse was a Lehman Brothers moment, if on a far smaller scale, in terms of being a wake-up call. But even if he hadn't gone bust, something else would have rattled markets before too long, given that the economy had already turned down and markets were already pricing in too much future prosperity.

For me, the story of Hatry is just yet another example of why economist Hyman Minsky's way of thinking about markets and economies is the most useful for investors. The important thing to understand is that you never know exactly what's going to go wrong. But a stockmarket crash is a process. It doesn't come out of nowhere. There are times when the market is more vulnerable, and times when it's less so. The big danger is that human nature is such that, when things are as good as it gets, that's the precise point at which we wholeheartedly believe that they can only get better. And when they've hit rock bottom, we expect the next stop to be somewhere in the bowels of the earth. So we're primed to be optimistic and credulous, just when we should be harshly sceptical; and pessimistic and prone to disasterifying, just when we should be scouring the market for opportunities.

The more overvalued markets grow, and the more fixated on gains investors become, the more you know that imbalances are building up beneath the surface. There's no way to time the crash precisely. But you can note the imbalances building, and you can keep an eye out for warning signs, and you can make your portfolio as defensive as possible by increasing the amount of cash you hold, and quite possibly your gold allocation too.

Oh, by way of a postscript, Hatry was released from prison in 1939. He'd worked in the prison library for a time, and shortly after his release, he bought Hatchards the booksellers for £6,000, and proceeded to turn around the ailing business. Apparently, the problem was that its many upper class customers were running up large bills without paying them, and treating the place like a library rather than a shop. Hatry wrote to them all and threatened to replace the display of books laid out in the shop window, with a detailed list of its creditors' name and the size of the bills they'd racked up. Needless to say, his debt collection methods worked, and he went on to have a successful (and, it seems, scandal-free) business career. He died in 1965.

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How the crash of 1929 unfolded

At the start of this chapter, we looked at how the US economy boomed in the run-up to the Great Depression. The trouble with booms – although most economists appear to struggle to accept this – is that people tend to assume the good times will continue forever. So, they make bigger and bigger bets based on that overconfidence. And eventually, the economy and markets are priced for such perfection that almost any disappointment can topple them. Which is why the Roaring '20s came to an abrupt end.

The decade was – in the US, certainly – an era of rapid technological change, with huge advances in both communications and automation (just as today we have social media and algorithms), rapidly improving living standards, and urbanisation. Like most booms, it got out of hand, and stock markets – as usual, fuelled by financial innovation (investment trusts in that case) and leverage (borrowed money) – took it too far.

The Dow Jones Industrial Average had hit a low of 63.9 in August 1921 (just as the "depression that never was" ended). From that point to when the stock market peaked on 3 September, 1929, at 381.17, the market had risen by nearly 500% (in other words, you'd have turned one dollar into $6). Now, as you might have noted, the top of the market actually came a good bit before the "Black Monday" (28 October 1929) of legend. So what exactly happened on and around 3 September? By then, the stockmarket was undeniably overpriced.

Judging by the Shiller price/earnings ratio, or Cape (which measures long-term earnings versus share prices), the US stockmarket in 1929 was more overvalued than at any point before then. And since 1929, the market has only been similarly overvalued in 2000, 2007, and – well, in the run-up to the coronavirus crisis.

Meanwhile, the market was propped up with a staggering amount of borrowed money. According to Time magazine, "by 1929, two out of every five dollars a bank loaned were used to purchase stocks". And in a superlative example of the "magazine indicator" at work, that week saw the very first issue of BusinessWeek (now Bloomberg BusinessWeek) come out, according to Liaquat Ahamad's excellent book, Lords of Finance. Launches of new business magazines often coincide with stockmarket tops. The mounting excitement about markets creates an audience who demand more information and advertisers who will spend money to reach that audience – but by the time the magazine comes out, the market has typically already seen its best days.

To be fair though, BusinessWeek's actual view of the market was pretty bearish. The editorial argued that America was in a "cloud land of fantasy", and had been for at least the past five years, what with all the talk of a "new era" of "unparalleled prosperity". They weren't the only sceptics. On 5 September 1929, Roger Babson – a bright, but fantastically eccentric stockmarket analyst and economist, who helped to invent the parking meter and also waged a personal vendetta against gravity (yes, seriously) – warned that disaster lay ahead and that America would suffer a "serious business depression". Babson had warned of this before. But this time the market seemed to be more open to his prophecy of doom. The "Babson break" saw share prices dip by about 3%, and while they rebounded the next day, they never regained the 381 high. This is worth noting. Despite the general exuberance, there were plenty of bearish voices around before the 1929 crash, and this is the case for all market crashes. It's not true to say that no one was aware of the vulnerable nature of the boom. They just needed it to keep going for the sake of their wallets.

That said, there was plenty of genuinely bullish sentiment around. Yale economics professor Irving Fisher (who I'll point out – as we've noted Babson's eccentricities – invented a precursor to the Rolodex, and was also, like many high-profile intellectuals of his day, a eugenicist) was wheeled out to counter Babson's bearishness. He argued that share prices were not too high, and that "Wall Street will not experience anything in the nature of a crash". This was a mildly foolhardy quote, but nothing compared to the reputation-ruining hostage to fortune he would come out with just a month later.

By late September, news of the Hatry collapse in London (see the previous section) had hit the market hard, partly because investors who had lost money on the Hatry debacle had to pull their money out of the US market to compensate. And yet, despite mounting concerns (and rising interest rates in Britain), by the close on 10 October, the US market had regained a lot of its post-Hatry losses, and stood at around 352, not far below the peak of 381. Thus on 16 October, 1929, Fisher made his famous mistake. He was quoted in The New York Times as saying that stock prices had reached "what looks like a permanently high plateau." He went on to tell questioners in his audience that he expected "to see the stock market a good deal higher than it is today within a few months."

The crash of 1929

Famous last words. The crash itself began on the afternoon of Wednesday 23 October, when a late afternoon sell-off rattled investors. When the market opened on 24 October, "Black Thursday" began. The market fell by 11%, and some of the biggest stocks fell by far more. A group of bankers stepped in late in the day to try to prop the market up – JP Morganstyle (see chapter 4) – and the market recovered somewhat the next day. But the relief was short-lived. On Monday 28 – Black Monday – the market crashed again by 13%. No one stepped in this time. And the next day (you guessed it – Black Tuesday), it fell by another 12%.

Indeed, despite various attempts at verbal and other interventions, the market didn't hit any sort of temporary plateau until 13 November. That was the first genuine buying opportunity in the unfolding bear market. The Dow closed at 198.6, and rallied to reach 294.07 on 17 April 1930. We'll look at the economic fallout from all this in the next section. But the short version is that the Dow Jones did not hit rock bottom until 8 July 1932. At that point, the Dow was sitting at 41.22, making for an 89% loss from its 3 September 1929 peak. And – what's far more striking, to me at least – is that the Dow took a total of more than 25 years to recover its pre-crash peak (and that's just in nominal terms, forget inflation). It only managed that on 23 November 1954. Now, that's a bear market.

Incidentally, the sad thing for Fisher is that the crash ruined him – even although he arguably went on to understand the causes of both the crash and the resulting depression perhaps better than anyone else.

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Why did the crash of 1929 turn into the Great Depression?

We've looked at how the crash of 1929 unfolded. Black Thursday (24 October 1929) gave way to mildly overcast Friday, which unfortunately proved a brief period of respite before Black Monday and Black Tuesday saw the Dow Jones crater. From there, it took another 25 years or so before the US market regained its pre-crash peak. And that's just in nominal terms (ie, not accounting for inflation). The big question is: why did the crash turn into such a dramatic economic collapse?

Every stockmarket bust is preceded by a boom – in the stockmarket. But just as a soaring market need not be driven by rampant economic growth, nor does every stockmarket bust turn into a depression. 1987 (see chapter 11) was violent and terrifying to all the traders involved. But it didn't leave the US economy on its knees. Same for the dotcom bust. And in 2008, although the stockmarket crashed, it was just one of many worries – the real problem was property-related bad debt. So, what was different about the crash of 1929?

As you might have guessed, it's not that simple. The crash contributed to the Depression, that's true. But it was also the result of existing economic frailty. So, let's dig in and see if we can look at roughly what happened. First things first – despite popular impressions, the "Roaring '20s" weren't all non-stop flapper dances, witty repartee, and prohibition-era cocktails for everyone. One of the biggest problems (one that has also been an issue following the 2008 crisis) was overcapacity.

One reason that farms were hit so hard, well before the rest of the US sunk into depression, was because they had increased production of food and other soft commodities aggressively during the war. Wartime was boom time for farmers – they had no overseas competition and plenty of demand. But after the war, imports were more readily available and there simply wasn't as much demand. As a result, farm repossessions rose sharply, as farmers were unable to keep up payments on the mortgages that they had used to buy more land, in order to expand production.

It's no different to any other resources cycle. When the price of metal and oil goes up, for example, the big companies splash the cash on exploring for more. They waste too much money on the basis that the good times won't end. And when they do, they find that they have over-expanded at a time when the cash coming through the door is falling precipitously. So, the farmers had already spent most of the 1920s struggling to cope with a deflationary environment. (Indeed, in 1929, Congress even voted through a $100m relief package for farmers after unusually good harvests battered wheat prices).

But what had happened by 1929 is that it wasn't just farmers – almost every industry was in the same boat. Basically, producers were making too much stuff. And once consumers could no longer borrow more money to buy that stuff, the only way was down. Well before the market crashed, steel production was falling, construction was slowing, and car sales were falling. Consumers were borrowed to their limits, while the Federal Reserve was raising interest rates(it started in 1928), partly because it was concerned (a little late in the day) about a bubble in the stock market.

The property market was already wobbly

There's also an interesting piece of academic research by Eugene N. White of Rutgers University that looks at the impact of a nationwide property crash on the US economy. White notes that, contrary to popular belief, the Florida real estate bubble (see chapter 6) was merely the most obvious example of a nationwide property boom. That price bubble peaked in 1925, and investment and construction activity peaked in 1926 as a result. Meanwhile, repossessions rose consistently from that year onwards. So, by the time 1929 came around, the economy was over-indebted, several industries were in trouble, and household balance sheets had already been weakened by falling house prices. Importantly, though – and this is a difference between then and 2008 – the housing crash was not a big drain on the banking system, notes White. Mortgage loans were pretty conservative and the riskiest loans were held by investors rather than banks. So, while the property market topped out in 1926, it wasn't anywhere near as systemically important as it is today.

So the economy was already fragile. But how did the crash help to tip this lot over the edge? It certainly brought the underlying problems with the economy uncomfortably to light. And it devastated confidence. One thing to remember about the stockmarket – particularly during boom times – is that as long as it's going up, people will generate a certain comfort from it. They'll ignore the problems they see with their own eyes in favour of assuming that the market must be right. When the market crashes – often after the biggest issues have become apparent – it pulls away the final veil to reveal the unpleasantness below. There's nowhere to hide from reality anymore. Equally, there was a lot of borrowed money in markets, and a lot of cross holdings (trusts owning stakes in other trusts, so that losses led to domino effects). That left a lot of people ruined or bankrupt. Companies could no longer raise capital cheaply via the stockmarket.

But the real problem – just as with 2008 – is that the banking system went bust. The volume of lending by banks collapsed after 1929 – far more drastically than anything that happened in 2008. However, this in itself wasn't driven by the stockmarket alone, and as we've already pointed out, it wasn't due to the residential property collapse either. Indeed, for a little while, it looked as though the economy might simply recover from 1929. We'll look at why that didn't happen in more detail in the next section.

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How rolling banking crises prolonged the Great Depression

The 1929 crash signalled the start of one of the longest economic downturns in modern history. But even at the end of 1929, no one really knew that the Great Depression was going to end up being, well, the Great Depression. After all, there had already been three recessions in the 1920s alone. There was the massive, but short-lived collapse of 1920/21 (see chapter 5), and there had also been recessions in 1923 and 1926 (shortly after the housing bubble burst – see chapter 6).

So, while the Wall Street crash of 1929 was shocking, there was no particular reason to suspect that it would be a lot worse than those previous recessions. 1920, in particular, had been extraordinary, though short. So what made the difference?

The Dow Jones Industrial Average peaked in September 1929 at just above 380. By mid-November that year, it had fallen to below 200. One of the few people to have an inkling of what would come next was, ironically enough, Irving Fisher – the same man who had made the infamous "stocks seem to have reached a permanently high plateau" comment just before the crash. At the start of 1930, Fisher warned in Time magazine that the world needed to reconsider the gold standard, or start producing more gold (in other words, the world needed much looser monetary policy). Otherwise, he warned, "we shall throttle business, wringing out all profits and experiencing all the evils of deflation".

However, by April 1930, the stockmarket had managed to rally all the way back to just under 300. As a result, many people thought that the worst had passed. Yet, despite this early optimism – and despite the efforts of the Hoover administration to prop up confidence – the economic data never really materialised to back up the rallying market. Unemployment continued to rise (raising fears of social upheaval), and April 1930 marked another stockmarket peak that wouldn't be seen again for a very long time. Then there was the folly of the Smoot-Hawley Act, passed in June 1930, that boosted US tariffs and hammered global trade.

The collapse of the JP Morgan of the South

But it wasn't until November 1930 that the next really big financial shock hit. That was when Caldwell & Co – viewed by some as "the JP Morgan of the South" – went bust. Caldwell was headquartered in Nashville, Tennessee. It was the biggest financial holding company in the South of the US, offering everything from banking to broking to insurance services. However, it was nursing heavy losses from investments made prior to the 1929 stockmarket crash. The managers had tried to cover up the problems of the group by sucking money out of their various subsidiaries. But in November 1930, it all came to a head. The Bank of Tennessee – a subsidiary of Caldwell – failed, and had to close its doors. Then Caldwell itself failed, and that inspired runs and closures of various other banks owned or associated with the company.

As with many aspects of the financial system, a lot of this is about confidence, or a lack of it. When banks went bust in those days, you lost your money. And so, if you were going to panic, it made sense to panic first and panic fast. Also, the plumbing of the financial system was far less sophisticated than it is today – the physical location of money mattered in a way that just isn't the case now, for example. Also, there was no clear policy for the various Federal Reserve banks in terms of helping out struggling banks. Yet even at that point, the banking panic in the southern states was easily dismissed as a regional problem, particularly as agricultural areas had been struggling all the way through the 1920s.

However then, in December, the Bank of the United States in New York went bust. And then in June 1931, Chicago saw banking runs spread throughout the city. All of these regional panics increased fear among individual depositors, and made it harder to get hold of credit. Individual bank failures themselves at this time were not uncommon. The problem in the 1930s was the scale. About a third of all banks in the US collapsed between 1930 and 1933 – roughly 9,000 in total.

It wasn't until March 1933, when the new president, Franklin D Roosevelt, declared a nationwide bank holiday, that the government started to get ahead of the panic. The basic problem is, if your banking system breaks down, it's very difficult to do any business. Those in debt become vulnerable to their debts being called in. Those in need of credit can't get it. Those with savings start hoarding them under the mattress, because they don't know where they can safely keep them. That's all very deflationary, and it's also a self-reinforcing spiral – things just keep getting worse.

What happens when the financial plumbing goes wrong

This is a key point. When you look back at financial crashes, the difference between a relatively contained, and arguably useful bubble (like dotcom, for example) and a catastrophic, destructive one, is the financial plumbing. If stockmarkets crash in price, that can just be an adjustment to reality – as in 1987, for example. When a recession comes along, it can simply be a pause while the economy adjusts course. But if the financial system itself breaks down, that's a lot more damaging and it takes a lot more time to recover from. That's why the Great Depression was so prolonged, and it's why the 2008 crisis has been so drawn out as well (though not as bad as the Great Depression – for most countries, at least).

What's perhaps worrying about today is that, while we avoided another depression, we did it by pushing our financial plumbing to its very limits, with experiments such as quantitative easing (QE) and extremely low interest rates. You could argue that the political turmoil of the 2010 has been all about trying to find our way to a system that works and that we can all trust again. Unfortunately, that has left our system looking very vulnerable as we've entered the latest crisis – which is one reason why markets have crashed so far in such a short space of time.

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How Britain avoided the worst of the Great Depression

In talking about the Great Depression and how it unfolded, we've focused almost entirely on the US. So you may be wondering – what was going on in Britain at this time? How come we don't really have the same folk memory of the Great Depression? Well, there's a very good reason for that. The truth is that for Britain, the Great Depression really wasn't especially Great, or particularly Depressing. The 1920s was a boom era for the US. For Britain, though, the 1920s were hardly roaring. Things weren't tough all over; London was swinging (as ever), but in the industrial areas (i.e. pretty much everywhere else), life was hard and unemployment was high.

This is the first key point to grasp about Britain's relatively mild experience in the Great Depression – we didn't have a massive bust, because we didn't have a massive boom either. The US was the big winner from World War I. Europe, on the other hand, was left broke. And of all the major powers, Britain was most committed to repaying its debts and regaining its pre-war financial position – in effect, we wanted to restore sterling as the global reserve currency. That meant maintaining relatively tight monetary and fiscal policies. As Liaquat Ahamed puts it in Lords of Finance, "Britain had pursued the most orthodox and prudent financial policies of any European power, and had been rewarded with the highest unemployment rate in Europe and a limping economy."

Then, in 1925, under the chancellorship of Winston Churchill, Britain went back onto the gold standard. In other words, the value of the pound was fixed to gold at a specific level. And because America owned most of the gold, we were in effect locked into a fixed exchange rate against the US dollar. Churchill – not a man who could ever be accused of fiscal responsibility himself – was never keen to go back onto the gold standard. And he later saw it as one of the biggest mistakes he ever made. And as Ahamed explains, Churchill had a pretty good grasp of the situation, even although he had no economics background.

But Montagu Norman, governor of the Bank of England, was wedded to the idea of returning to gold. And Norman won the argument. As a result, a pound was now valued at $4.86 – the pre-war exchange rate. The idea of the pound ever being worth nearly $5 is quite staggering now. And the reality is, it wasn't worth $5 then either. America was on its way to being the pre-eminent power, and Britain was passing the baton. We were overvalued, and they were undervalued. (Echoes of the US and China today? Perhaps.)

It's tough exporting goods when your currency is too expensive. It's also hard to get out of debt – and we were very indebted at the time – when the "real" value of your debt keeps rising because of rampant deflation (Britain was stuck with deflation from around 1926 to 1934). This made the misery in the industrial parts of Britain even worse. And meanwhile, the national balance sheet continued to deteriorate. Efforts to balance budgets merely made things worse. And the crash of 1929 and the resulting collapse in global trade was the last straw.

Something had to give. So, in 1931, amid much political upheaval, Britain came off the gold standard (the US would do something very similar in 1971). Everyone thought it'd be the end of the world. In terms of how it looked, it was embarrassing for the country. And it certainly rattled global markets. To get a flavour of how unthinkable it was, I'll give you a passage from Piers Brendon's brilliant book on the 1930s, The Dark Valley. When a journalist had suggested the idea of abandoning the gold standard: "Sir Warren Fisher, head of the Civil Service and permanent secretary to the Treasury, 'got to his feet, his eyes flashing, his face flushed with passion' and said that 'any such suggestion is an affront to national honour' and 'quite unthinkable'".

How Britain evaded the worst of the Great Depression

A week later, the deed was done. As the saying goes, never believe anything until it's officially denied. And really, despite the histrionics, in abandoning the gold standard, Britain was simply rectifying its earlier error. The outcome was very similar to what happened in 1992, when Britain left the European Exchange Rate Mechanism. Once sterling's link with gold was severed, Britain was able to cut interest rates, the threat of deflation was eliminated, and exports picked up too, because the value of sterling cratered. Monetary policy was easy, whereas in the US for example, it was tight. And yet, because the rest of the world was struggling too, import prices still fell, despite the drop in sterling. This meant that "real" wages (i.e. after taking inflation into account) actually rose in the UK, which enabled higher consumption to offset the fall in exports.

Of course, that's not to say for a minute that everything was fine. The same groups who were suffering in most other countries continued to suffer in Britain – industry was in decline and the 1930s were particularly hard in the North of England, central Scotland and in Wales (this is when George Orwell wrote The Road to Wigan Pier). Efforts to improve the welfare state and to introduce specific schemes to try to stimulate growth in these areas were just sticking plasters. Yet, even so, compared to just about every other major global economy, Britain had a relatively easy ride in the 1930s. Indeed, the recession of the 1930s was shorter (in Britain) than the one we went through in 2008 (although remember that we were far closer to the epicentre of that one).

If there's a lesson to take from this, it's the same one that we've been reminded of time and time again – when a government cannot make good on its financial promises, it will change the terms. A developing economy will out and out default. But a developed one will too – just in a sneakier way. That's what quantitative easing is. And I'm not necessarily saying that this is a bad thing. Given the choice between a depression and cheating – well, maybe cheating is best.

On the other hand, we all know what happened at the end of the 1930s. All those pressures end up coming out somewhere. Britain's exodus from gold triggered a domino effect. Another 25 countries abandoned the gold standard immediately, and others followed – Japan dumped it in December that same year. It makes no sense to stick to an outdated, damaging system of values. However, if you upturn the whole thing, then you have be aware that as everyone is left scrabbling around for a new set of values, you don't know what'll come crawling out of the woodwork.

Brendon observes: "The collapse of the international standard of valuation bred greater disillusionment with capitalism". Isn't this what's been happening right now? The abandoning of the gold standard led people to question how they could place value on anything. Today, the sight of central banks printing money from thin air raises similar questions. What is money? Does it have any intrinsic value? Or any value at all? If it does, then from where does its value derive? And if it doesn't, then why are we spending most of our lives in the pursuit of this thing that a central bank can print from thin air?

This leads to a lot of confused thinking and leaps of logic. Against what other backdrop could something like the bitcoin phenomenon arise? Or the idea of a universal basic income, paid to an obsolete serf class by their benevolent tech industry overlords (terrified of the work that the devil might make for idle hands)? I'm hopeful that the geopolitical backdrop is healthier than in the 1930s. But make no mistake, we are currently going through a similar period of economic, political and monetary soul-searching. And the contours of what will emerge are, as yet, far from clear. The coronavirus crisis is only likely to accelerate that process of change.

Chapter 8

1966: The first modern era credit crunch

Time to put the Great Depression behind us, and move on to the very first post-war "credit crunch" – the crisis of 1966. Yes, I'll admit I hadn't heard of it until I went looking for it either. But it's an interesting era, and one with a potentially surprising amount of pertinence to today.

In 1966, the US economy was booming. Unemployment was running at just 4%, which was as close to "full employment" as possible at the time. Companies were operating at full capacity and, because they expected more growth, they were ramping up investment too. Lyndon B Johnson was president. America was knee-deep and getting deeper in the war in Vietnam (the top-selling single in America that year was The Ballad of the Green Berets, by Staff Sergeant Barry Sadler, a Special Forces medic). As a result, the government was spending hard too. In short, the economy was "running hot".

The S&P 500 index hit its high for the year on February 9th – it closed at the dizzy heights of 94. It then lost 22% over the following eight months, bottoming out at just below 75 on October 7th. The real damage was done during the summer months. You can see why this isn't one of the more famous crashes. The S&P managed to lose almost that much in a single session on Black Monday in October 1987. But 1966 is worth looking at. Not only is it widely recognised by economists as the first important financial crisis of the post-war period, it also set an unhealthy pattern for future financial crises.

Financial tech + clumsy regulation + sneaky banks = crisis

One of the many interesting things about looking at the history of financial crises is that you start to notice how the interplay of financial technology and outdated regulatory systems and banking ingenuity (or sneakiness) combine to create fresh blow-ups. In the case of 1966, the new financial technology was the negotiable certificate of deposit. This was introduced in 1962. In effect, it allowed banks to offer better interest rates to savers. This in turn, meant that they took in more funds, and so had more money to lend. They used this money to buy high-yielding bonds (such as municipal bonds – loans to local government) and to lend to individuals. It's the old 3-6-3 recipe for happy banking - "pay savers 3%, charge borrowers 6%, hit the golf course at 3pm".

It turned out that when money was available, people wanted to borrow it. As economist and analyst Albert M Wojnilower wrote in his 1980 Brooking Institute paper, "The Central Role of Credit Crunches in Recent Financial History", this "new approach revealed an enormous pent up credit demand." Bank lending boomed, growing at an annual rate of 13%-plus over the four years from 1962 to 1966. Unsurprisingly, as a result of all this extra demand hitting the system, inflation started to pick up too. During the early '60s, inflation was extremely well behaved. But in the first nine months of 1966, consumer price inflation rose to an annual growth rate of 3.7% from 1.7% in 1965. As a result of this rising inflation, the Fed funds rate was steadily being raised too – from below 2% in 1961 to 5.75% in 1966. And that's where the problem arose.

Alongside all the familiar levers the Fed could use to intervene in markets, there was a rule known as 'Regulation Q'. This put a ceiling on the interest rate that banks could offer to savers. The ceiling was set by the Fed at 5.5%. That was fine in the early 1960s. But as inflation rose, and interest rates on other assets rose along with it, the yield available on other safe assets – such as three-month Treasury bonds – outstripped the rate that the banks could offer to savers. By summer 1966, banks couldn't compete. Savers stopped putting their money into the banks and put it into other "higher-yielding conservative investments", notes Alex Pollock of RealClearMarkets. Without any money to lend, as The New York Times reported, bank lending dried up. "For most people, residential mortgage money was unobtainable... there was a sharp slump in mortgage loans and housing starts."

As well as cutting lending, banks stopped investing – particularly in municipal bonds. That was bad news for the 'muni' market, and for the local councils that needed the funds. As Albert E Burger of the St Louis Fed noted in his 1969 analysis of the "crunch", the banks were big buyers of these bonds. "In 1960 commercial banks had about 7.5 cents of every deposit dollar invested in municipals. By mid-1965 banks' municipal portfolios accounted for almost 12 cents of every deposit dollar." As a result, "by the end of August, the disorganization in the municipals market, rumors about the solvency and liquidity of savings institutions, and the frantic [funding] efforts by money-centre banks generated what can be characterized as a controlled panic," noted economist Hyman Minsky. In other words, as money dried up, everyone started to hide their cash under their mattresses again.

What happened? The Fed freaked out and came to the rescue, of course. In early September, banks were allowed to borrow direct from the Fed's "discount window". But only as long as they reduced lending to businesses and kept investing in munis. The muni market stabilized and stocks bottomed out, as a shaken Fed cut interest rates sharply. Why was there no recession? It was partly because the Fed had loosened monetary policy so quickly. But it was mainly because government spending on the war in Vietnam kept ramping up. This stimulus offset the sharp drop in corporate investment that occurred, as banks reined in corporate lending.

The birth of the Greenspan put

Given the limited immediate consequences, and the sheer mess of the decade that followed (which we'll touch on in the following chapters), it's no surprise that the crisis of 1966 isn't exactly etched into anyone's memory. What's most interesting about the whole thing from an investment point of view, is that it set a pattern for the future. As Minsky scholar L. Randall Wray put it in a piece for the Jerome Levy Economics Institute, "as a result of Fed intervention, the economy continued to expand, new financial practices emerged and were validated, leverage ratios increased, memories of the Great Depression faded, and markets came to expect that big government and the Fed would come to the rescue as needed."

In short, Alan Greenspan (who became Fed chairman in 1987), might have made the "Greenspan put" infamous – but the moral hazard created by the Fed's actions was already becoming embedded in markets while he was still playing jazz clarinet, writing odes to the gold standard, and hanging out with his fellow Ayn Rand disciples.

Chapter 9

1967-71: A nasty shock for bond investors

We read a lot about stockmarket crashes, and house price crashes, but bond market crashes don't feature so heavily. There are a couple of reasons for that. Firstly, the bond market is vast, but also slow-moving, and is often viewed as being the "sensible" end of the financial industry. So it's not as prone to histrionics as the rather more flighty equity set. Secondly, bond markets tend to move in big trends. So turning points – and thus crash points – are fewer and further between. But when they happen, they can be very scary indeed. As investors in the late 1960s and early 1970s learned to their cost.

The bond market crash of the late 1960s

The decline in bond prices between 1967 and 1971 fits into a pattern that Paul Schmelzing of Harvard University describes as an "inflation reversal", which is a grim state of affairs for bondholders. (Schmelzing wrote about the era in a brief study of bond market crashes for the Bank of England in 2017). An "inflation reversal" is what you get when inflation makes a sudden comeback – or rather, when the bond market re-evaluates its overly-low inflation expectations.

Between 1965 and 1970, US bonds fell in value by 36% in real terms (i.e. after inflation). During the same period, annual consumer price inflation rose from 1.6% to 5.9%. That sounds pretty bad by itself, but you also need to bear in mind that this wasn't the end of the crash by any means – it was practically a warm-up for the mid-1970s, which is when inflation really took off. The reason I want to look at the 1967 to 1971 phase in more detail is because this is also the type of crash that Schmelzing saw (certainly before the coronavirus outbreak) as being the biggest risk to bondholders of today.

We touched a bit on financial conditions in the early 1960s in the last chapter. But what's worth noting is that they were not dissimilar to the late 2010s (in that both interest rates and inflation had been stable for a long time). Indeed, in the early 1960s, as Sidney Homer and Richard Sylla put it in their A History of Interest Rates, the US economy saw "the most unusual period of stability in the postwar period". Interest rates (as measured by investment grade bond yields) remained around the 4.5% mark. Inflation was low, and investors remained tentative.

However, "an entirely new and revolutionary phase of bond market history began in 1965". President Lyndon B Johnson had launched the "Great Society" reforms in 1964. In effect, this was an attempt at a "New Deal" for the 1960s, aimed at eradicating poverty and addressing racial injustice. What it meant in economic terms was more government spending, which – all else being equal – tends to be inflationary. Meanwhile, spending on the Vietnam War was ramping up too. Taxes were cut significantly too, a policy that had originally been laid out by John F Kennedy prior to his assassination in 1963. Perhaps more importantly, the economy was doing well, and after a period of caution, businesses were becoming more optimistic. Unemployment fell from 5.2% in 1964 to 4.5% in 1965, and 3.8% in 1966.

How inflation caught bond investors unawares

In short, government spending (and tax cutting) was ramping up at a time when the economy was already picking up pace. That's a recipe for inflation. But bond investors had grown used to a pretty benign environment and they'd grown complacent (I'll throw in the Hyman Minsky quote again: "Stability breeds instability"). So they weren't ready for inflation when it came running. And small wonder. Between January 1959 and May 1965, US inflation (as measured by CPI – consumer prices index) had ranged from as low as 0.3% for much of 1959 to highs of a mere 1.7%. But in late 1965, it started to pick up, hitting 1.9% on several occasions. In 1966, 1.9% was the low (in January) – for the rest of the year, inflation ranged between 2.5% and 3.8%. By 1970, inflation was regularly coming in at over 6%. And what's quite incredible, when you look at the data, is that the CPI rate didn't once fall below 2% again until 1986 (and that was really only for a brief spell).

So how did bond investors react? Homer and Sylla note that the rot set in as early as 1965. A sudden fear of inflation and gently rising rates from the Fed saw yields surge (and bond prices tumble). "Market psychology, which had clung to traditional benchmarks, was shattered, and the stage was set for a major bear market." The credit crunch of 1966 that we discussed in the last chapter, resulted in a rally for the bond market, starting in October that year. But this only lasted for a short period. By 1967, "people began to think that the bond market was a thing of the past. The market declined almost steadily throughout the year." The prices of prime corporate bonds and long-term government bonds fell by 15-20% in one year. The gloom continued – 1969 "saw all yields rise steeply". By this point, the market was operating against the backdrop of "a dangerous business boom, widespread speculation, and a sharp rise in inflation and, especially, inflationary expectations."

Not a good time for bond investors

In short, it wasn't a good time to be a bond investor. This section of the bear market ends in 1971, partly because there was a mini-recession in 1969/70 and partly because of the Penn Central Railroad bankruptcy in 1970 – then the biggest bankruptcy in American history – which rattled investors and sent them scurrying for "safety". But then you have the 1970s, which were of course hugely inflationary for all number of reasons (more on that in the next chapter), and bonds really took a beating then.

So how is this relevant to today? Well, as we've noted, this particular outcome is what Schmelzing believes today's bond investors need to be most concerned about. And you can see why. Inflation has been behaving itself for ages. And this is all despite (up until the coronavirus outbreak, at least) record employment levels almost everywhere in the world; gently rising wages; higher public spending, fuelled by pressure from populist parties; and loose monetary policy. Even now, there is still widespread scepticism that it can make a comeback. But the experience of the late 1960s shows us just how rapidly an "inflation reversal" can take place.

Chapter 10

1973: The brutal crash that hit Britain hardest

The 1970s were horrible for bonds. But equities weren't spared either. Indeed, from a UK markets point of view, the stock market crash we're discussing in this chapter was far worse than 1987, 2000, or 2008. In fact, it's probably the worst crash still within the adult memory of a significant part of the population. Some of you reading this may even have actively invested through it. We're talking about the crash of 1973/74.

Yet another good reason to be glad the 1970s is over

I won't comment on the music or the fashion of the 1970s. Whether you'd like to return to that or not, I suspect, depends on whether it was your heyday or not. But in terms of investment and economic conditions, I'm not sure any of us would want to end up back there. (At least, not unless we were armed with a stockmarket almanac and an armful of back copies of the Racing Post). The 1973/74 bear market was brutal. It was a global crash. Everyone took a hit. From its peak on 5 January, 1973, to its bottom on 3 October, 1974, the S&P 500 slid by 48%. But it was even worse for British investors. The London Stock Exchange's FT 30 market shed an eye-watering 73% from peak (in April 1972) to trough (December 1974), as the chart below shows.

So what happened? Why did everything go so horribly wrong? Is there much to learn from it, and could it happen again? Well, this is going to be a very cursory look at the period, but here are just a few of the things that happened on a global scale in the early 1970s. Firstly, and probably most importantly, the US came off the gold standard and killed off the Bretton Woods regime that had governed currency values in the post-world War II era in the process. In August 1971, president Richard Nixon severed the link between the dollar and gold, and by March 1973, the dollar was free floating. That was pretty traumatic (it represented a radical, once-in-a-generation change in the world's currency regime) and it was inflationary.

Then, later in 1973, we had the oil shock as oil cartel Opec embargoed countries that had backed Israel in the Yom Kippur War. By Christmas that year, oil prices had tripled. And then you had Watergate, with Nixon resigning in mid-1974. So, in general, we were embarking on a very inflationary period after a time in which we'd grown used to relative price stability (in 1959/1960 Britain even had a brief, and perfectly harmless, flirtation with deflation). And it was also a time of lots of political instability (inflation and political instability tend to go together, which bodes ill for today).

However, it's also worth remembering that this turmoil followed a long period of bullishness. When we talk about crashes, we tend to focus on the carnage – it's the scary bit. But one ingredient is vital to every bust – a preceding boom. The political and economic establishment prefers to treat the boom phase as "normal", and the result of clever policy making. The bust phase is then viewed as a strange aberration to be rectified by any means possible. This attitude, of course, just exacerbates the whole cycle.

So, for example, in the US, we'd had the "Nifty Fifty" boom, where high-quality stocks were regarded as the only things you'd need to buy and hold forever. Meanwhile, as late as January 1973, US financial newspaper Barron's conducted its annual roundtable discussion. No one was worried about anything. The headline that resulted? "Not a Bear Among Them". Oops. The market shed 10% by the end of the month. (Good old magazine indicator – it's not as reliable as I'd like, but when it hits the mark, it really hits the mark).

The Achilles heel of the British economy – bricks and mortar

Looking more specifically at the UK, a property boom (quelle surprise!) was partly responsible for the extreme scale of our own bust. A report by property consultants JLL argues that, by the late 1960s, building regulations and fiscal policies had "stifled the supply of new office buildings" in London. As London grew more important, a demand imbalance built up and prices for office space started to rise from around 1968 onwards. In 1970, the Conservative government (under Edward Heath) was elected and while it relaxed building regulations on the one hand (encouraging added supply), it poured fuel on the demand fire by relaxing lending policies, making interest payments above £35 tax deductible for individuals, and embarking on a big public spending push.

Meanwhile, financial deregulation (instituted by Labour in 1964) had created a tier of "secondary" banks that were more lightly regulated than the big banks. These ended up being the Northern Rocks of their day, as we'll get to in just a moment. Britain being Britain, notes JLL, "the easy credit policy stimulated bank lending that flowed disproportionately to the property sector". According to Duncan Needham, writing on The Property Chronicle blog, "lending to the property sector increased more than eight-fold from 1970 to 1974... residential prices doubled and commercial prices trebled".

What popped the bubble? Inflation and the political reaction to it. In those days, controlling inflation wasn't just about hiking interest rates (although that happened too). The government thought that the best way to control inflation was to control prices – of labour, of rents, of just about everything. (This happened in the US too, by the way – it's easy to forget that our blithe view in the West that price controls are delusional is a very, very recent phenomenon and one, I suspect, that would remain worryingly easy to reverse). Business rents were frozen in late 1972, at roughly the same time as the Bank of England's warnings to banks to curb their property market lending were growing increasingly strident.

So credit was getting more expensive, and rent controls made investing in commercial property less attractive. There was only one way for prices to go - sharply lower. And of course, when that happened and prices fell, all of those little Northern Rocks blew up. As JLL puts it: "due to overlending to the property market and excessive gearing, the property market crash and ensuing loan defaults created a significant banking crisis". The Bank of England launched "the lifeboat operation", whereby it teamed up with the big banks in London to bail out the banking system. Distressed assets were taken over rather than forcing fire sales. It was all very quietly done, apparently – a column by Richard Lambert in the Financial Times from December 2008 noted that, unlike the 2008 crisis, the 1973 one wasn't played out in public, with no panicked crowds in the streets. But clearly, it was yet another factor in the overall stockmarket crash of the period.

We've only scratched the surface of this crash

I could write a lot more about 1973/74. There's so much to unpack. Stocks did badly. But bonds did a lot worse. And really, the whole impact of the unwinding of Bretton Woods is something that we're still feeling the after-effects of today. But if you want to take one lesson away from the 1970s, it's just how damaging out-of-control inflation is, to both economy and social fabric. And the risk is that government efforts to rectify these things just exacerbate the problems.

The other point about the 1970s is that the stockmarket crash was really just a symptom. People remember 1987 clearly, or talk about the crash of 1929 (even although its actual role in the Great Depression is disputed), because they stand out. But not many people talk about the crash of '74, because – to put it bluntly – so many other awful things were going on at the time. As if to emphasise that, the bottom in 1974 wasn't really the end of the bear market era.

As financial historian Russell Napier points out in his classic Anatomy of the Bear, December 1974 represented a decent buying opportunity. Indeed, from the bottom, the market rose by about 60%-odd in just a few weeks. But the real "bear market bottom" – and the biggest opportunity – didn't come until August 1982, which was when inflation was finally conquered, and the long secular bear market that began in 1968 was finally over.

Put bluntly, if you're an investor, you don't want to go back to the 1970s. The question of course, is whether we'll be able to avoid it.

Chapter 11

1987: Short and sharp

For many people in the UK, October 1987 is infamous for the Great Storm that swept the south of England. As well as causing widespread disruption and 18 deaths (plus another four in France), the Great Storm left an indelible mark on the reputation of Michael Fish, the UK's top weather forecaster at the time. Fish has always claimed that his insouciance has been exaggerated, which may be fair. But he certainly didn't see the epic storm coming. And the stock market crash of October 1987 came out of the blue for most people too.

How 1987 swept the globe

The 1987 stockmarket crash – "Black Monday" – is legendary. On 19 October, the US stockmarket, as measured by the Dow Jones Industrial Average, fell by 22.6% in a single trading session. This still represents the largest single-day stockmarket decline in US history. From the start of the tremors – on 14 October – the market shed more than 30%. And while the focus tends to be on the US, the crash was a global one. Apparently, the market that suffered least over the period (in local currency terms) was Austria's – it only lost 11%. New Zealand was the worst, crashing by 60%.

So what caused it? No one can point to the exact trigger. As with most crashes, it's hard to mark the precise tipping point, even in hindsight. We'll go into the most widely accepted and convincing theories in a moment. However, while it's pretty much impossible to predict exactly when a major market turn might come, it is possible to at least have an idea of how vulnerable a market is.

On that front, while the crash of 1987 was shocking and surprising, it's important to realise that stockmarkets had enjoyed a first half that was equally startling in terms of just how good it was. As Swiss Finance Institute researchers put it in a 2006 paper on volatility: "The strong market decline... followed what for many countries had been an unprecedented market increase during the first nine months of the year." For example, by the end of August that year, the Dow Jones had climbed by 44% in the space of seven months. The FTSE 100, meanwhile, had also gained around 40% from the start of the year, peaking at 2,443 on July 16. When it comes to markets, of course, what goes up does not necessarily have to come all the way back down again. But you could certainly argue that after that sort of spectacular run, stocks were ripe for a correction, with everyone twitchy and ready to take their profits.

Here's a short version of how events unfolded. On Wednesday 14 October, global markets started turning down. On Friday 16 October, the Dow Jones ended the day 4.6% lower –- which briefly set the record as the largest single-day points drop in the Dow ever seen, until the following Monday. Come Monday morning, stockmarkets in Asia were tumbling. And the contagion spread across the world, accelerating as it went.

In Britain, the aforementioned Great Storm didn't help matters at all. The storm had struck on the night of Thursday 15th and through Friday 16th. Trains into London were cancelled, and trading had been cut short on the Friday, so by the morning of Monday 19th, traders were already keen to get out of the market, having seen the weak close on Wall Street.

By the end of the day on Monday, the UK market had fallen by nearly 11% (and by the close on Tuesday, it had lost a further 12%). So by the time the US market opened, it was just a question of how far it could fall. The answer was: "farther than anyone would have thought possible". By the end of the day, the US stockmarket had lost nearly a quarter of its value. (In case you're wondering, by the way, gold rose by $10 to hit a four-and-a-half year high of $481.70 an ounce on the day.)

What caused the 1987 crash?

There was plenty of geopolitical upheaval around in 1987. The Iran-Iraq war was raging. That week, Iran had fired missiles at American-owned tankers in the Gulf. But geopolitical upheaval is a constant in markets. In any given year, scary stuff is happening somewhere. I reckon if you could do a Google search on all of the news reports I've read in my life, the phrase "tension in the Middle East" would be in the top five in terms of hits – somewhere near "climate change", and an awful lot higher up than "Brexit".

So what was around that was unusual and market-specific? Slightly more convincing is the theory that international attempts to fix currency rates might have had an impact. At the weekend, then-US Treasury Secretary James Baker had threatened to devalue the dollar against the German mark, to help narrow the trade deficit. Fear of a falling dollar might have persuaded international investors – who had become a more important part of the US market – to pull their money out.

But one of the most convincing factors blamed for the speed and scale of the crash was a financial innovation known as "portfolio insurance". If you want a comprehensive yet comprehensible explanation of how this worked, I'd advise you to read the relevant chapter of Ed Thorp's A Man for All Markets (a great book). Keeping it short and simple, investors were using computerised trading systems which deployed derivatives. The idea was that these algorithms would keep you safe by locking in your wins on the way up, and hedging against your losses on the way down. But when the system became overwhelmed, they instead created a self-fulfilling doom loop – selling begat more selling and so on. With markets already coming off a huge rally and feeling vertiginous, it didn't take a lot to tip it into danger territory.

All's well that ends well – or is it?

In any case, as it was, in the end, despite the terrifying panic on the day, the only portfolio insurance investors really needed was already sitting at the head of the US central bank, the Federal Reserve. Alan Greenspan – the Maestro-in-the-making – twisted the arms of banks to keep lending on their usual terms. Within just two days, the Dow had regained more than half of the Black Monday losses. And inside two years, it was back at the highs. There was no economic fallout, and the financial system was essentially unharmed. (Note, by the way, that in December 1987 a group of 33 eminent international economists – including five Nobel Prize winners – warned in Washington that "the next few years could be the most troubled since the 1930s". Open letters from public intellectuals are often contrarian indicators, as they indicate over-confidence.)

In all, 1987 was an explosive, but short-lived setback. Another interesting point – and one that makes intuitive sense to me – is made by economist Andrew Smithers, who argued that one reason for the quick recovery is that stocks were not especially expensive, even at the 1987 peak. They may have come too far and too fast (price/earnings ratios were high), but as measured by "Tobin's Q" (an asset-based valuation measure), the level of valuation was not extreme. In other words, the market blew off a lot of froth, but rapidly realised that the post-crash prices were worth paying. That's worth remembering - whatever else happens, at the end of the day, it's all about the price.

Chapter 12

1994: The great bond market massacre

The great bond massacre. That was the headline on a Fortune magazine article (by Al Ehrbar) published in 1994. That year, global bond market investors lost, from peak to trough, around $1.5trn. In those days, a trillion-and-a-half dollars was still a lot of money. Indeed, it amounted to "the worst bond market loss in history", as Fortune put it.

So how come we don't hear much about it? Everyone knows about 1929, 1987, 2000 and 2008. And most people know the 1970s were basically awful, even if they can't pinpoint 1973/74 as the precise stockmarket nadir. And I reckon more than half of you would be able to quote 1997 as the year of the Asian crisis. But 1994?

Let's look at what happened. In February 1994, the Federal Reserve's key interest rate (the Federal Funds rate) was sitting at 3.0%. This was extremely low by historical standards. It had been sitting at that level for 17 months, and the last time anyone had seen rates go up was six years previously. That in itself is a pretty useful reminder that, while our current situation is unprecedented in terms of scale, it's not the first time that interest rates have been left sitting at historic lows for a long period of time.

Meanwhile, as the Fortune article noted at the time, "wages were going nowhere, and companies dared not raise prices". However, at the same time, the US economy was perking up and had been growing for nearly three years. So the Fed thought it was about time for interest rates to start rising, to head off any threat of inflation. In February 1994, the Fed raised interest rates to 3.25%. It raised them again in March and April, to 3.75%; and then by 0.5% in each of May and August (to 4.75%). Then, in November 1994, the Fed actually raised rates by 0.75% in one go. Even before the financial crisis, that would have been a punchy move. So by the year-end the Fed Funds rate stood at 5.5%.

Bond investors hadn't expected the Fed to move as quickly as it did. There was a global bond panic, and yields shot up (which means that prices fell). The yield on 30-year US Treasuries, for example, spiked from below 6% to above 8% – a massive move for that market. Bear in mind that a huge chunk of this move occurred within the first couple of rate hikes. The 30-year bond is more sensitive to short-term rate changes, but – to quote again from the Fortune article of the day – Gilbert de Botton of Global Asset Management in London said: "You had a snowballing liquidation completely out of proportion to the fundamentals".

The year the bond market had a little Minsky moment

There's a good argument to be made that the 1994 bond crash was one of the key events that turned then-Fed chairman Alan Greenspan into Wall Street's best pal – the man who would never take the market by surprise again, thus creating even more moral hazard than already existed. But in fact – at least according to a paper by the Bank for International Settlements (the BIS, the "central banks' central bank") written in December 1995 – the real problem wasn't Fed policy (and given that the economy was just fine after this, that seems a reasonable conclusion). It was "the internal dynamics of the bond market". In short, bond investors had simply become too complacent.

Bond market volatility was extremely low. Bond investors were betting on interest rates either remaining stable or falling further, and using leverage to do so. When you employ leverage – borrowed money – you magnify your gains and losses, and vastly increase your chances of being wiped out. The more complacent people get and the more overvalued a market becomes, the more leverage they tend to use. This is why Hyman Minsky's model of financial markets is the most sensible mental model to use to think about these things. When prices are high and expectations are complacent, it's all too tempting to juice up your returns with borrowed money. Hence "stability breeds instability".

In case you're wondering what happened to stocks – they had a bit of a scare when the Fed started raising rates, and fell by about 10% early in the year. But they hit the bottom for the year in April 1994 and really just spent most of the year meandering a bit higher. It was by no means a remarkable year one way or the other for stocks, and things perked up sharply in 1995.

In all, markets survived, ultimately calmed down, and that's why you don't hear much about 1994 in the annals of crash history. But a lot of people got burned and a fair few scalps were claimed. As Jonathan Davis pointed out in an FT article on the topic a few years ago, the famed hedge fund investor Stanley Druckenmiller lost $650m in just two days. And probably best known is that in December 1994, Orange County in California went bust due to its own leveraged bets on interest rates. For a very long time, it was America's biggest-ever municipal bankruptcy (indeed, it was only in July 2017 that the county made its final repayment on a $1bn bankruptcy bond that it had issued in order to repay some of its debts to public agencies).

Chapter 13

2007: The global financial crisis begins

As many of you will be aware, the financial crisis didn't start with Lehman Brothers going bust in September 2008. It started a long way before that. For British investors, the queues outside Northern Rock in late 2007 made it very clear that something was wrong. And before that, alert observers would have noted the closure of several hedge funds, and the massacre in the subprime mortgage markets that was becoming apparent in early 2007.

Now I don't want to re-tread the financial crisis itself here or anywhere else in this book. Prior to the coronavirus crisis, it was still the most recent financial crisis, so there's plenty of material on the MoneyWeek website (at moneyweek.com) and there are many far more detailed books you can read on the topic. Instead, I just want to look at the behaviour of stockmarkets, and the FTSE 100 in particular, in the run-up to the crash. Because given their reputation as discounting mechanisms, it took markets a surprisingly long time to cotton on.

The last bull gasp for the FTSE 100

On October 12th, 2007, the FTSE 100 closed at 6,730. Now, that wasn't quite the top of the market. On June 17th that year, it had in fact managed to close at 6,732. And it was not, in fact, an all-time high for the FTSE either. The all-time high remained the level of 6,930, which was hit on December 30, 1999. Yet it was the last bull gasp before the financial crisis. From that point, it was downhill all the way, until the market finally hit a closing low of 3,512 on March 3rd, 2009.

Here's broadly how events unravelled that year. In June 2007, two Bear Stearns hedge funds warned of losses, and a month later had to be bailed out by their parent bank. Bear in mind that US house prices had been falling for over a year by now, and that subprime mortgage brokers were already in trouble. In February of the same year, HSBC issued its first ever profit warning, all because of losses at its US subprime lending arm. Yet in 'big picture' terms, this was still 'bubbling under'. Look no further than the fact that in July 2007, the Bank of England raised interest rates by a quarter point, from 5.5% to 5.75%. (Consumer price index inflation had peaked at 3.1% in March, and the Bank was still in tightening mode).

Then, in August 2007, the fact that this was a burgeoning credit crisis rather than a contained problem became more apparent as French bank BNP Paribas froze three of its funds, due to concerns over the indeterminate value of their subprime mortgage holdings. At that point, the market panicked quite badly. And on 14th September 2007, Northern Rock had to admit to going to the Bank of England for help, and the queues built up outside – a bona fide run on the bank, in full-blown public view. How could stocks not collapse?

And yet the market was already bouncing back from the Paribas shock. The rebound was also helped by central bank action over in the US. The Federal Reserve cut interest rates by half a percentage point, to 4.75%. It was a pretty dramatic decision. As the BBC reported at the time, "the move, the first US rate cut in four years, is aimed at restoring confidence in the housing market and preventing the turmoil from denting the economy." Global stocks liked that. Arguably more than anything else, it was that rate cut that helped power the

FTSE's rebound to the October high. The Fed would then cut rates at its October meeting, to 4.5%, then in December again, to 4.25%. Meanwhile, in December 2007, the Bank of England cut rates by a quarter point to 5.5%.

Disaster was staring us all in the face

Yet this was just the beginning of the financial crisis. By December 31st 2007, the world's central banks had made co-ordinated announcements that they would "provide liquidity" to the banking system to help it out over the year-end period. We were also starting to hear from the bond insurers (the ones who were on the hook for all those subprime losses) about the sheer scale of the subprime problem and the fact that they'd probably go bust if they had to shell out for all those losses. In short, by the end of 2007, there really was no excuse not to be worried about how things were panning out.

Yet, fascinatingly, the FTSE 100 closed that year out at 6,456. It was barely off its peak. It's true that it was about to experience a painful dose of reality in January 2008, when we saw a sharp slide. But it's still interesting to see just how much the equity market was constantly looking on the bright side. We talk about the 'Greenspan put' (the idea that central banks will always be able to bail out the market), and how the market always expects the Fed to come to the rescue.

It's extraordinarily clear just how reliant the markets were, all through this period, on the old adage, "Don't fight the Fed". Britain experienced a Mary Poppins-style banking run - something we all associated with ancient history at the time - but markets were already rallying because they thought: the Fed is "on it". That remained true throughout the crisis until Lehman Brothers blew up - every fresh disaster that happened was expected to be the last. It's only with Lehman that the market finally really cracked and stopped looking on the bright side. So if you only take one lesson from 2007, it should be this: never be in any doubt that markets can sometimes be very, very wrong in really quite obvious ways.

Chapter 14

Further reading

There are many, many great books on financial history out there. But here are seven excellent books that I used widely in the process of writing these pieces.

- **Reminiscences of a Stock Operator (1923), by Edwin Lefevre**

This is an investment classic – the thinly fictionalised account of the career of Jesse Livermore, who made and lost fortunes in both the panic of 1907 and the crash of 1929. Try to get hold of the 2010 edition with annotations by John D Parkman – it provides excellent historical context.

- **Devil Take the Hindmost: A History of Financial Speculation (1998), by Edward Chancellor**

Hands down, one of the best histories of manias, bubbles and busts available.

- **The Dark Valley: A Panorama of the 1930s (2001), by Piers Brendon**

An extraordinary and comprehensive history of the period between the world wars. A sobering glimpse of just how close many of the world's most powerful nations came to complete social breakdown during the 1930s.

- **Rainbow's End: The Crash of 1929 (2001), by Maury Klein**

An enjoyable overview of how the excesses of the roaring 20s led to the crash at the end of the decade.

- **Lords of Finance: 1929, the Great Depression, and the Bankers who Broke the World (2011), by Liaquat Ahamed**

Ahamed tells the story of the 1929 crash and the Great Depression, focusing on the role played by four of the world's most important central bankers.

- **A Man for all Markets: Beating the Odds, from Las Vegas to Wall Street (201x), by Edward O Thorp**

The autobiography of Ed Thorp, MIT professor, hedge fund manager, and the man who managed to beat both the casino and Wall Street. Entertaining and very informative on the evolution of markets in the modern era.

- **Anatomy of the Bear: Lessons from Wall Street's Four Great Bottoms (4th edition, 2016), by Russell Napier**

An in-depth and technical (but characteristically well-written) analysis of the four best buying opportunities of the 20th century. Essential reading for any active investor.

If you've enjoyed this book, do sign up for MoneyWeek's daily email Money Morning (moneyweek.com/moneymorning). And if you're interested in taking advantage of bubbles and busts, you might want to pick up my other book, **The Sceptical Investor** (available at Harriman House, Amazon and other purveyors of good books).