Too Big to Fail

Kaleb: There's a term that affects and troubles governments, businesses, banks, and voters alike. That term is Too Big to Fail.

Kaleb: Presidents talk about it.

Obama: (3:20-3:26) "Never again will the American taxpayer be held hostage by a bank that is too big to fail" (Obama1)

Trump: (10:26-10:32) "While banks that were considered too big to fail, we've heard that many times - too big to fail." (Trump1)

Kaleb: Books have been written about it.

Schlesinger: (0:00-0:10) "New York Times reporter Andrew Ross Sorkin has just published a new book, 'Too Big to Fail: the inside story of how Wall Street and Washington fought to save the financial system - and themselves'" (Schlesinger1)

Stern: (0:31-0:40) "In 2004, four years before a worldwide economic downturn, Gary co-authored the book, 'Too Big to Fail: the hazards of bank bailouts'" (Stern1)

Kaleb: Movies have been made about it.

TBTF: (0:23-0:26) "We don't have options. Do you want Too Big to Fail? Here it is." (TBTF)

Panic: (48:41-48:46) "AIG may not have been Too Big to Fail, but it was certainly too interconnected to the economy to fail" (Panic)

Kaleb: It comes up over and over again.

Warren: (1:00-1:07) "We've now understood this problem for nearly five years, so when are we going to get rid of Too Big to Fail?" (Warren1)

[Land of the RetroOnes by RAGE from YouTube's free Audio Library]

Kaleb: My name is Alexander Bagehot. This is The Bankster Podcast season 3: Last Resort, presented by centralverse.org. Today, episode four - Too Big to Fail.

Kaleb: Today's central banks have public missions. Lender of Last Resort is meant to prevent collapses in the system. Remember that when trust dries up, when markets tighten, the system is designed so that banks can come to the Fed for temporary relief until the panic subsides, markets loosen, and trust is restored. That said, sometimes the loss in trust happens because

everyone is afraid that one single institution will fail, and with its failure, bring down all of them. On today's episode we'll tell the story of two institutions that became too big to fail, got into trouble, and then reached out to the Fed for help. In our first example, the Fed opened its books in a pretty traditional Lender of Last Resort capacity. The second example will illustrate a different approach the central bank can take to wrestle with a collapsing Too Big to Fail institution. But first, let's circle back to the phrase itself - Too Big to Fail. Where did it come from?

Kaleb: In 1913

Court: (0:00-0:06) "The Honorable, the Chief Justice and the Associate Justices of the Supreme Court of the United States" (Court)

Kaleb: Chief Justice Louis Brandeis, denounced big banks as symptoms of what he called, "a curse of bigness". (Atlantic, pp1)

Kaleb: Besides a very small handful of references in obscure economic (Google1) and legal (Google2) textbooks the idea is not discussed. It wasn't until the 1970's that the actual phrase, "Too Big to Fail" was introduced to a wider audience.

Kaleb: See, in the early 70's the country saw a spate of large companies failing and the government having to come in and rescue them. In 1970 it was $3.2 billion to a large railroad called Penn Central. 1971 saw $1.4 billion to the defense contractor Lockheed. 1974 was $7.8 billion to a New York bank called Franklin National. Heck, New York City itself required a $9.4 billion rescue from the federal government in 1975. (Propublica1)

Kaleb: The government didn't provide these funds joyfully. However, the alternative seemed unimaginable to those in charge.

Kaleb: In a January 1975 issue of BusinessWeek, the journalist John Cobbs coined the modern usage of the term in an article titled, "When Companies Get Too Big to Fail". He defined the phrase to include, "corporations that have become so important to the US economy that government does not dare let one go under." (Stern2, p15)

Kaleb: Now let's take a second to clarify and emphasize this definition. It doesn't mean a company that is literally too big. There's not a single company (or city for that matter) that couldn't technically go into bankruptcy or default. The key is that the term applies to institutions that the government or central bank decides they don't "dare" let go. Often alternative phrases like "Too Connected to Fail" or "Too Important to Fail" are actually more appropriate. But for whatever reason, Too Big to Fail is the one that stuck.

Kaleb: However, if the BusinessWeek article was the community theater introduction, Too Big to Fail's Broadway debut came in a congressional hearing in 1984. Congressman Stewart McKinney said the following,

Kaleb: "I would also like to find out what the regulators feel they have done, No 1, by creating a new class of bank in the United States of America, a TBTF - too big to fail." (McKinney1, p89)

Kaleb: The institution that sparked McKinney's concern was Continental Illinois, a large bank in Chicago located on LaSalle street tucked in sharing the corner with the Board of Trade and the Federal Reserve Bank of Chicago. For those unfamiliar with Chicago, this is the T intersection where the funeral procession assssination takes place in The Dark Knight.

Kaleb: At the time, Continental Illinois was the 7th largest bank in the United States. With $40 billion in assets. (History1, pp1) and some incredibly weird tv ads,

Ad: (0:00-0:31) "If you'd like a loan, applying for it can be as easy as picking up the phone. Just call Continental Illinois at 1 (800) 841-8000 for a loan application. And do it right now while there's a stupid commercial on." (Ad1)

Kaleb: At this point the banker has been handed a hool-a-hoop and is dancing with it swinging around his neck. (Ad1)

Kaleb: Continental was a very old bank. One of the oldest in the country. It traced its lineage clear back to the Civil War. (Encyclopedia1, pp1). During the 1970's and 80's, when our story takes place, the United States had some (what we would now consider strange) regulations that prevented banks from opening branches in other states. However, the regulations did not prevent banks from buying large amounts of loans from another state or even another country. Continental did both. (History1, pp2).

Kaleb: In part due to this strategy, Continental became the largest commercial and industrial lender in the United States. What that meant was Continental was especially exposed to the areas where they bought the loans from. And unfortunately for Continental, in the early 80's, there were a series of market crashes in the very areas where they had purchased loans. (History1, pp2). Here are two quick examples:

Kaleb: In the summer of 1982 an Oklahoma based bank called Penn Square failed. According to a New York Times post-mortem, the bank's goal had been to make "large amounts of energy-related loans, keep only a small part for itself and sell the rest to other investors, mainly large banks, elsewhere in the country." (NYT1, pp5)

Kaleb: Continental Illinois had been one of those large banks - buying more than $1 billion worth. (History1, pp2). And one of the issues that we'll see again in later episodes about the Great Recession, is that Continental didn't know much about the loans they were buying. Penn

Square, as the post-mortem continued, “would take care of all the technical details, such as deciding how much to lend, checking the creditworthiness of the borrower, determining what kind and how much collateral was required, safeguarding the collateral, and collecting the payments.” (NYT1, pp32). In addition, Penn Square promised to stand by the loans it sold. There was an implicit guarantee. To Continental Illinois this sounded like easy money. (NYT, pp33).

Kaleb: However, the house of oil loan cards did come crashing down. And when it did, Continental took a major hit for the losses on those loans they’d bought from Penn Square. It hurt, but it wasn’t a mortal wound.

Kaleb: So where the first example of being over exposed to one area or sector was the midwest oil industry, the second example was international sovereign debt.

Kaleb: On their international desk, Continental had invested heavily in emerging markets, which also took serious losses in 1982 when Mexico defaulted and failed to pay back investors who had bought their sovereign debt. (History1, pp2)

Kaleb: Over the next 18 months or so, Continental attempted to stabilize their books and practices. However, these efforts were ultimately unsuccessful. In the first quarter of 1984 they reported that an astounding $2.3 billion of their loans had stopped making payments - were nonperforming in bank speak (History1, pp3).

Kaleb: That announcement caused waves in the financial market press. A few weeks later, on Thursday May 10, 1984, the OCC made an unprecedented (and frankly a bit bizarre) statement saying that the rumors being floated by Japanese newspapers that Continental Illinois was in trouble were false. (Swary, p471)

Kaleb: They weren’t false of course.

Kaleb: A classic, and serious, bank run began. But wait. What about deposit insurance that we talked about last time? Well, of the $28 billion in deposits, over $20 billion was held above what the deposit insurance fund would cover. So the run was on that $20 billion of unprotected deposits. (History1, pp3)

Kaleb: The very next day the bank, unable to secure short-term funding to stay afloat, borrowed $3.6 billion from the Federal Reserve’s Discount Window - which, remember, is the simplest and most straight forward form of lending of last resort from the Central Bank. Over the weekend 16 of the nation’s largest banks put together a rescue loan of $4.5 billion. (history, pp4)

Kaleb: But it just wasn’t enough. The government was now becoming seriously concerned. 2300 banks had invested in Continental Illinois - it was sort of a bank of banks. Half of those banks had amounts invested above the insurance protection and would lose their money if

Continental failed. For nearly 1 in 10 of those banks the situation was even worse because they had invested half of their equity capital in Continental, which to emphasize, would mean they'd nearly certainly fail if Continental failed. (History1, pp4)

Kaleb: Hopefully you're beginning to see what Too Big To Fail means - on the ground - in real life.

Kaleb: On Thursday, May 17th, the FDIC injected $1.5 billion in capital to try and stem the bleeding. On Friday, the FDIC took the drastic and controversial measure of expanding the insurance fund to include all depositors even if they had more than the official limit. In the end they FDIC had to announce "permanent" assistance and effectively take over the bank. (History1, pp6)

Kaleb: The bank's stockholders were completely wiped out, but the depositors and bondholders were saved. It would take until 1991 before the government was able to completely exit its position in Continental Illinois. Then, in 1994, what remained was sold to Bank of America (History1, pp6).

Kaleb: Throughout the crisis, the Federal Reserve played two major roles. First, as Chairman Paul Volcker later put it, the Fed opened the Discount Window to Continental, which Continental used, "heavily and frequently". Their second role was being involved in the discussions that were happening multiple times a day between Continental, the Treasury, the FDIC, and other regulators. (history, pp6-7)

Kaleb: The congressional hearing to investigate what happened with Continental Illinois was then the event that brought the term Too Big to Fail into the full sunlight of the public lexicon.

[Coupe by The Grand Affair from YouTube's free Audio Library]

Kaleb: Just as the final pieces of that ill fated Chicago bank were being picked up by Bank of America, 800 miles to the east, a hedge fund was born in Greenwich, Connecticut. This hedge fund would require a different type of intervention from the Fed.

Kaleb: The name of this new hedge fund was Long Term Capital Management, commonly known by its acronym LTCM. The fund was built using principles invented by two of its Nobel prize winning founders. As one BBC documentary introduces it,

BBC Narrator: (0:17-0:23) "this is the story of a brilliant scientific discovery" (BBC1)

BBC Narrator: (0:34-0:42) "a beautiful and elegant mathematical formula which could do something no one had ever dreamt possible" (BBC1)

BBC Narrator: (1:09-1:16) “but when it’s creators used the formula to make themselves rich, only then was its dark side revealed.” (BBC1)

Kaleb: Ok, quick timeout - I think the narrator for this documentary just might be Galadriel, lady of the woods of Lothlorien and mightest of elves.

Galadriel: (0:58-1:06) “And nine. Nine rings were gifted to the race of men who above all else desire power.” (Galadriel)

Kaleb: Now that that wonderful collision of worlds has been noted. Let’s carry on.

Kaleb: The two economists, Myron Scholes and Robert Merton, won their Nobel prize for solving a financial markets puzzle first theorized by a French student in the year 1900. The theory was that if you could find a mathematical formula for pricing options, you’d be able to remove risk itself from the markets.

Kaleb: Let me give a quick example to illustrate. Imagine you’re Apple, it’s January, and you know that you’re going to start making new iPhones in June. You want to lock in prices right now for the glass that you won’t actually buy until the summer manufacturing season begins. You can do that by purchasing an option. The puzzle is - how do you price it? How do you know how much the price is going to change between January and June? Economists, mathematicians and statisticians tried for decades to crack the puzzle, adding and then removing dozens of different variables trying to accurately measure the risk. Nothing worked. Until, Scholes, Merton, and Fischer Black (a third economist who passed away before the Nobel was given) cracked the code and solved the puzzle.

Kaleb: In their final formula, the academics removed all of the variables that couldn’t be directly measured, except one - the risk. And that final piece was resolved by a new tool called dynamic hedging, which, using some cool trajectory calculus allows you to constantly protect yourself against negative moves in the price. Their formula was an immediate success.

BBC Trader: (30:22-30:34), “and literally before the official publication of the model traders had effectively started to program the model and begin to use it to trade” (BBC1)

Kaleb: Their formula changed the way options were priced and quickly became common practice. It would be another 20 years before they themselves decided to put it into practice on a large scale, or in their own words (first Merton, then Scholes):

BBC Merton: (34:01-34:10) “The idea of building something from scratch, but not a little prototype company, but something that would be quite large and on a global basis. It was too good to pass up.” (BBC1)

BBC Scholes: (34:15-34:21) “It was for me a way to see the application of ideas to practice.” (BBC1)

Kaleb: Or as one trader put it,

BBC Trader: (34:59:-35:13) “It was as though the apostles had effectively come down to raise money in a bingo parlour. This was going to be the team of the century.” (BBC1)

Kaleb: Within months they had raised $3 billion dollars. (BBC1, 35:31)

Kaleb: In order to supercharge their potential returns, they took that $3 billion dollars and borrowed an additional $100 billion. Then, to protect themselves (I’m putting air-quotes around “protect”) they used their sophisticated dynamic hedging models. You can think of the hedging as a kind of insurance. So the fund was safe because if their bets panned out, they’d sell and cash out. But, if their bets crashed, they’d still get paid by the hedges.

Kaleb: How did they do, you ask? Well, after the founders took a healthy cut for themselves, the people that had invested in LTCM earned 20% the first year, 43% the second, and 41% the third year.

BBC Professor: (37:48-38:11) “When I asked him, ‘What is it you guys are doing at LTCM?’ Merton characterized it in that way of his. He said, ‘Well, you know, one way is to think of us as a gigantic vacuum cleaner sucking up nickels from all over the world...It was as though the world was behaving exactly the way it had been writ on the blackboard.” (BBC1)

Kaleb: Now this was an exceptional start to the fund...but if the fund kept growing and exceeding expectations we wouldn’t be featuring them in today’s episode, so what went wrong? Well, it started with a recession 8500 miles away.

Journeyman: (0:15-0:20) “Take a taxi ride in Jakarta these days and you begin the journey into the financial Fiasco of Southeast Asia.” (Journeyman1)

Crash: (6:03-6:07) “...would help ignite the Asian financial crisis” (Crash1)

BBC Narrator: (38:56-39:11) “In the summer of 1997 across Thailand property prices collapsed. This sparked a panic which swept through Asia. Bank went bust from Japan to Indonesia.”

NPR: 3:50-3:55, “Across East Asia, economies collapsed. The interest costs on dollar debts soared. Local stock prices plummeted.” (NPR1)

Kaleb: This crisis was LTCM’s first true test. They hung on, but barely. See, here’s where that portfolio stood in the summer of 1998. They had approximately $3 billion in capital (or money) from investors, they’d borrowed $100 billion. And with that money they had made bets worth $1

trillion. They had leveraged up to such a degree that even small losses on this massive portfolio were dangerous. The Asian Financial Crisis caused the first major losses on LTCM's books.

Kaleb: But if the crisis across the seas brought them to the edge, it was something else that pushed them over the edge.

BBC Narrator: (41:51-42:06) "In August 1998 something happened no-one had considered possible: the biggest country in the world suddenly and without explanation refused to pay all its international debts"

Kaleb: Here is William McDonough, President of the Federal Reserve Bank of New York at the time.

McDonough: (1:04:02-1:04:21) "Investors had decided Russia is an ex-superpower, it has lots of missiles and lots of atomic warheads for them. Certainly you could not have a financial accident in Russia, because the rest of the world, the rich countries, would bail Russia out. Well, it turned out that that was wrong." (Filmes1)

RT: (0:36-0:42) "the so-called Ruble Crisis hit Russia on August 17, 1998." (RT1)

Kaleb: The failure of the Russian government to make their debt payments was dramatic and devastating.

BBC Lowenstein: (1:20-1:33) "They began to lose 100 million or more day after day after day to finally there was one day when they dropped half a billion dollars, 500 million in a single day and the agony just didn't end."

Kaleb: In August alone LTCM lost 44% of it's value. (History2, pp4) Nearly half of it's value went up in smoke. But the worst was still yet to come.

Kaleb: On September 2, in a letter to investors that was leaked to the press, LTCM acknowledged the losses. (History2, pp4)

Filmes Narrator: (1:07:12-1:07:23) "Contagion had arrived on Wall Street. Incredibly, the failure of this single investment fund threatened the entire global economy." (Filmes1)

BBC Lowenstein: (43:39-43:50) "Suddenly they seemed to be staring at this nightmare where one firm linked up to every major firm on Wall Street was going to be seized up and markets might just stop working." (BBC1)

Kaleb: In the midst of a crisis, and often on the edge of an impending crisis, the hardest thing a central bank or government has to deal with, is an institution that has become so large literally no one knows what would happen if it had to close its doors, fail to pay everyone it owes money

to, and instead deliver collateral which is who knows where and worth who knows how much. There's an immense amount of uncertainty and very little time to figure it out.

Kaleb: Now, at the moment you're listening to this, you may be standing in your kitchen washing dishes, out on your morning jog, or using this central banking podcast as a sleep aid. You may be asking yourself, "so what if a big hedge fund and a bunch of big banks go down?" That's a far and important question. But the answer is that the economy includes your job, your house, your retirement, your kids education - all of that functions only when financial markets function. The financial system breathes breath into the economy, and without it, the economy suffocates. And that means your company suffers, your neighbor suffers, collectively as a society we suffer.

Kaleb: Here's how those two Nobel prize winning economists described their feelings as their fund, their "idea-put-into-practice", caved in on itself.

BBC Merton: (45:33-45:41) "It's like getting hit by a truck." (BBC1)

BBC Scholes: (45:57-46:09) "Obviously I felt quite bad, badly for, you know, investors, for others who had worked with us" (BBC1)

Kaleb: So although the fund was collapsing and markets were panicking, LTCM hadn't yet lost everything. They were hanging on by a thread. But they were hanging on. If they were going to survive, they were going to need a serious and large injection of capital. In plain speak, they needed cash.

Kaleb: On Friday, September 18, 1998 LTCM officials made a call to the lender of last resort - the Federal Reserve Bank of New York. Now, hedge funds are not banks - which means that under normal circumstances they wouldn't have access to the last resort money at the Fed. However, if you listened to the previous episode, you know that the Fed has the legal authority to make exceptions. (History2, pp5)

Kaleb: On Sunday, September 20, a team led by the New York Fed's number two (Fisher1) piled into a Jeep and drove up the coast to Connecticut to assess the current damage and potential future damage, in person at LTCM's office (Mallaby1, ch10 by fn45)

Kaleb: What they found was not comforting. They were taking massive losses - like, hundreds of millions of dollars a day - massive losses (Mallaby1, ch10 by fn50).

Kaleb: On Monday morning, Goldman Sachs, one of the largest investment banks on Wall Street, informed the Fed that they weren't having any luck finding a buyer for LTCM (Mallaby1, ch10 by fn50). No single institution wanted LTCM's portfolio because they would have had to close out many of the trades, and the other Wall Street firms knew that so the competitors would also try and close out their similar trades, and the spiral would continue.

Kaleb: In Sebastian Mallaby's book, More Money Than God, he says, "The solution to this problem was for a consortium to purchase the portfolio: That way, each would get a piece that was small enough to hold, and the hyenas would stop feeding. The hitch was that traditional rivalries among the main banks seemed to preclude such an alliance. Unless..." (Mallaby1, ch10 by fn51)

Kaleb: "...the Fed brokered one." (Mallaby1, ch10 by fn51)

Kaleb: And that's exactly what they did.

Kaleb: On Tuesday morning the Fed invited four financial firms to their headquarters on Liberty Street in downtown Manhattan "brainstorm in groups". Not unlike the meeting that JP Morgan organized 90 years previously. (History2, pp6)

Kaleb: Here's Bill McDonough again, President of the New York Fed,

McDonough: (1:08:51-1:09:23) "The head of a securities firm or a bank is not paid to be a patriot. He or she is paid to serve the best interests of the shareholders. So the most that one can do in a position like mine is to say, 'the public interest may well be served by Long Term Capital Management not failing, but there is no public-sector money to solve the problem. The taxpayer is not going to do this. You folks have to decide whether it's in your interest to do it.'" (Filmes1)

Kaleb: By Tuesday evening the group of banks and financial institutions invited in on the talks about the Wall Street rescue of LTCM was up to 13. However, they went home that night without a solution. (History2, pp7)

Kaleb: They reconvened on Wednesday morning back at the New York Fed building. But there was a twist - a move that would have brought the similarities to the JP Morgan experience to an uncanny level.

Buffett: (0:43-0:47) "I got this call on a Friday afternoon saying things were getting really serious there" (Buffett1)

Kaleb: This is Warren Buffet, the Oracle of Omaha, and one of the richest people in the world.

Buffett: (0:56-1:16) "and the place was imploding. And the Fed was sending people up that weekend and so between that Friday and the following Wednesday when the New York Fed in effect orchestrated a rescuer effort, but without any federal money involved, I was quite active" (Buffett1)

Kaleb: Despite being on a sailing ship with Bill Gates weaving in and out along the Alaskan coastline, Buffett managed to put together an offer.

Buffett: (2:17-2:32) “In the end, it was a bid for $250 million essentially for the net assets. And we would have put in 3 and ¾ billion on top of that. It would have been $3b from Berkshire Hathaway, $700m from AIG, and $300m from Goldman Sachs.” (Buffett1)

Kaleb: McDonough, president of the NY Fed, encouraged LTCM to take the deal. But, Buffett’s Wednesday morning offer was only good until 12:30pm that day.

Buffett: (2:35-2:43) “We put a very short time fuse on it because when you’re bidding on a hundred billion dollars worth of securities that are moving around you don’t want to leave a fixed price bid up there very long.”

Kaleb: So despite the encouragement to take Buffett’s deal, the twelve o’clock hour came and went and LTCM did not accept the offer. It was now up to the consortium of banks gathered at the New York Fed. (History2, pp7)

Kaleb: And there were moments, very heated moments, where the Fed didn’t think the banks were going to be able to come together, but they did. (Mallaby1, ch10 by fn52)

Kaleb: At 6pm it was announced that LTCM had accepted the Fed organized consortium’s offer. For a $3.625 billion dollar loan they took 90% of the hedge fund. LTCM would go on to run the day-to-day operations, but employees were given no bonuses and salaries were limited. Also, the consortium formed an oversight committee that supervised the fund’s actions. (History2, pp8)

Kaleb: Over the following 15 months, LTCM unwound all of it’s trades, paid back the loan to the consortium of banks and returned what money they could to their original investors. Those investors lost hundreds of millions of dollars, but major market disruptions and/or collapses were prevented and LTCM did not bring down the system (BBC1, 44:10-44:19; History2, pp8). This was an important move and one that illustrates the power that the lender of last resort can have even without putting up any of its actual last resort funds.

[Land of the RetroOnes by RAGE from YouTube’s free Audio Library]

Kaleb: From a Chicago Bank with too many oil loans to a hedge fund run by Nobel laureates, financial institutions have a way of growing in the shadows until they’re so large, that if they get sick, they infect the whole system, the regular economy - our economy. Historically the Fed has taken different approaches to dealing with Too Big to Fail institutions. Today we reviewed one case where the Fed’s role was relatively simple lender of last resort activity, open the Discount Window, to a more complicated role as gatherer of potential rescuers.

Kaleb: In the next episode, we deal with a different set of crises - Terrorists and Hurricanes.

Kaleb: Today's episode was written, edited, and produced by me, Alexander Bagehot. A full transcript with links to all of the sources used and quoted in today's episode can be found at www.centralverse.org. While you're there, check out the interactive graphics describing how modern central banks work today. The BBC Documentary about LTCM is called Midas Formula, and I highly recommend the full thing. The theme song for this season is Land of the RetroOnes by RAGE.

Kaleb: I tweet under the name @KalebNygaard. Central banks affect the daily lives of all of us. Rate the podcast wherever you're listening, then share it with your coworkers, classmates, family, and friends. Until next time, thanks for listening.