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SUMMER 2007: DISRUPTIONS IN FUNDING

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In the summer of 2007, as the prices of some highly rated mortgage securities crashed and Bear’s hedge funds imploded, broader repercussions from the declining housing market were still not clear. “I don’t think [the subprime mess] poses any threat to the overall economy,” Treasury Secretary Henry Paulson told Bloomberg on July 26.¹ Meanwhile, nervous market participants were looking under every rock for any sign of hidden or latent subprime exposure. In late July, they found it in the market for asset-backed commercial paper (ABCP), a crucial, usually boring backwater of the financial sector.

This kind of financing allowed companies to raise money by borrowing against high-quality, short-term assets. By mid-2007, hundreds of billions out of the \$1.2 trillion U.S. ABCP market were backed by mortgage-related assets, including some with subprime exposure.²

As noted, the rating agencies had given all of these ABCP programs their top investment-grade ratings, often because of liquidity puts from commercial banks. When the mortgage securities market dried up and money market mutual funds became skittish about broad categories of ABCP, the banks would be required under these liquidity puts to stand behind the paper and bring the assets onto their balance sheets, transferring losses back into the commercial banking system. In some cases, to protect relationships with investors, banks would support programs they had sponsored even when they had made no prior commitment to do so.

IKB OF GERMANY: “REAL MONEY INVESTORS”

The first big casualty of the run on asset-backed commercial paper was a German

bank, IKB Deutsche Industriebank AG. Since its foundation in 1924, IKB had focused on lending to midsize German businesses, but in the past decade, management diversified. In 2002, IKB created an off-balance-sheet commercial paper program, called Rhineland, to purchase a portfolio of structured finance securities backed by credit card receivables, business loans, auto loans, and mortgages. It made money by using less expensive short-term commercial paper to purchase higher-yielding long-term securities, a strategy known as “securities arbitrage.” By the end of June, Rhineland owned €14 billion (\$18.9 billion) of assets, 95% of which were CDOs and CLOs (collateralized loan obligations—that is, securitized leveraged loans). And at least €8 billion (\$10.8 billion) of that was protected by IKB through liquidity puts.³ Importantly, German regulators at the time did not require IKB to hold any capital to offset potential Rhineland losses.⁴

As late as June 2007, when so many were bailing out of the structured products market, IKB was still planning to expand its off-balance-sheet holdings and was willing to take long positions in mortgage-related derivatives such as synthetic CDOs.⁵ This attitude made IKB a favorite of the investment banks and hedge funds that were desperate to take the short side of the deal.

In early 2007, when Goldman was looking for buyers for Abacus 2007-AC1, the synthetic CDO mentioned in part III, it looked to IKB. An employee of Paulson & Co., the hedge fund that was taking the short side of the deal, bluntly said that “real money” investors such as IKB were outgunned. “The market is not pricing the subprime [residential mortgage-backed securities] wipeout scenario,” the Paulson employee wrote in an email. “In my opinion this situation is due to the fact that rating agencies, CDO managers and underwriters have all the incentives to keep the game going, while ‘real money’ investors have neither the analytical tools nor the institutional framework to take action before the losses that one could anticipate based [on] the ‘news’ available everywhere are actually realized.”⁶ IKB subsequently purchased \$150 million of the A1 and A2 tranches of the Abacus CDO and placed them in Rhineland.⁷ It would lose 100% of that investment.

In mid-2007, Rhineland’s asset-backed commercial paper was held by a number of American investors, including the Montana Board of Investments, the city of Oakland, California, and the Robbinsdale Area School District in suburban Minneapolis. On July 20, IKB reassured its investors that ratings downgrades of mortgage-backed securities would have only a limited impact on its business.⁸ However, within days, Goldman Sachs, which regularly helped Rhineland raise money in the commercial paper market, told IKB that it would not sell any more Rhineland paper to its clients. On Friday, July 27, Deutsche Bank, recognizing that the ABCP markets would soon abandon Rhineland and that IKB would have to provide substantial support to the program, decided that doing business with IKB was too risky and cut off its credit lines. These were necessary for IKB to continue running its business. Deutsche Bank also alerted the German bank regulator to IKB’s critical state. With the regulator’s encouragement, IKB’s largest shareholder, KfW Bankengruppe, announced on July 30 that it would bail out IKB. On August 7, Rhineland exercised its liquidity puts with

IKB. Rhineland's commercial paper investors were able to get rid of the paper, and KfW took the hit instead—with its losses expected to eventually reach 95%.⁹

The IKB episode served notice that exposures to toxic mortgage assets were lurking in the portfolios of even risk-averse investors. Soon, panic seized the short-term funding markets—even those that were not exposed to risky mortgages. “There was a recognition, I'd say an acute recognition, that potentially some of the asset-backed commercial paper conduits could have exposure to those areas. As a result, investors in general—without even looking into the underlying assets—decided ‘I don't want to be in any asset-backed commercial paper, I don't want to invest in a fund that may have those positions,’” Steven Meier, global cash investment officer at State Street Global Advisors, testified to the FCIC.¹⁰

From its peak of \$1.2 billion on August 8, the asset-backed commercial paper market would decline by almost \$400 billion by the end of 2007.

COUNTRYWIDE: “THAT'S OUR 9/11”

On August 2, three days after the IKB rescue, Countrywide CEO Angelo Mozilo realized that his company was unable to roll its commercial paper or borrow on the repo market. “When we talk about [August 2] at Countrywide, that's our 9/11,” he said. “We worked seven days a week trying to figure this thing out and trying to work with the banks. . . . Our repurchase lines were coming due billions and billions of dollars.”¹¹

Mozilo emailed Lyle Gramley, a former Fed governor and a former Countrywide director, “Fear in the credit markets is now tending towards panic. There is little to no liquidity in the mortgage market with the exception of Fannie and Freddie. . . . Any mortgage product that is not deemed to be conforming either cannot be sold into the secondary markets or are subject to egregious discounts.”¹²

On August 2, despite the internal turmoil at Countrywide, CFO Eric Sieracki told investors that Countrywide had “significant short-term funding liquidity cushions” and “ample liquidity sources of our bank. . . . It is important to note that the company has experienced no disruption in financing its ongoing daily operations, including placement of commercial paper.”¹³ Moody's reaffirmed its A3 ratings and stable outlook on the company.

The ratings agencies and the company itself would quickly reverse their positions. On August 6, Mozilo reported to the board during a specially convened meeting that, as the meeting minutes recorded, “the secondary market for virtually all classes of mortgage securities (both prime and non-prime) had unexpectedly and with almost no warning seized up and . . . the Company was unable to sell high-quality mortgage[-]backed securities.” President and COO David Sambol told the board, “Management can only plan on a week by week basis due to the tenuous nature of the situation.” Mozilo reported that although he continued to negotiate with banks for alternative sources of liquidity, the “unprecedented and unanticipated” absence of a secondary market could force the company to draw down on its backup credit lines.¹⁴

Shortly after the Countrywide board meeting, the Fed's Federal Open Market

Committee members discussed the “considerable financial turbulence” in the subprime mortgage market and that some firms, including Countrywide, were showing some strain. They noted that the data did not indicate a collapse of the housing market was imminent and that, if the more optimistic scenarios proved to be accurate, they might look back and be surprised that the financial events did not have a stronger impact on the real economy. But the FOMC members also expressed concern that the effects of subprime developments could spread to other sectors and noted that they had been repeatedly surprised by the depth and duration of the deterioration of these markets. One participant, in a paraphrase of a quote he attributed to Winston Churchill, said that no amount of rewriting of history would exonerate those present if they did not prepare for the more dire scenarios discussed in the staff presentations.¹⁵

Several days later, on August 14, Countrywide released its July 2007 operational results, reporting that foreclosures and delinquencies were up and that loan production had fallen by 14% during the preceding month. A company spokesman said layoffs would be considered. On the same day, Fed staff, who had supervised Countrywide’s holding company until the bank switched to a thrift charter in March 2007, sent a confidential memo to the Fed’s Board of Governors warning about the company’s condition:

The company is heavily reliant on an originate-to-distribute model, and, given current market conditions, the firm is unable to securitize or sell any of its non-conforming mortgages. . . . Countrywide’s short-term funding strategy relied heavily on commercial paper (CP) and, especially, on ABCP. In current market conditions, the viability of that strategy is questionable. . . . The ability of the company to use [mortgage] securities as collateral in [repo transactions] is consequently uncertain in the current market environment. . . . As a result, it could face severe liquidity pressures. Those liquidity pressures conceivably could lead eventually to possible insolvency.¹⁶

Countrywide asked its regulator, the Office of Thrift Supervision, if the Fed could provide assistance, perhaps by waiving a Fed rule and allowing Countrywide’s thrift subsidiary to support its holding company by raising money from insured depositors, or perhaps through discount-window lending, which would require the Fed to accept risky mortgage-backed securities as collateral, something it never had done and would not do—until the following spring. The Fed did not intervene: “Substantial statutory requirements would have to be met before the Board could authorize lending to the holding company or mortgage subsidiary,” staff wrote. “The Federal Reserve had not lent to a nonbank in many decades; and . . . such lending in the current circumstances seemed highly improbable.”¹⁷

The following day, lacking any other funding, Mozilo recommended to his board that the company notify lenders of its intention to draw down \$11.5 billion on backup lines of credit.¹⁸ Mozilo and his team knew that the decision could lead to ratings

downgrades. “The only option we had was to pull down those lines,” he told the FCIC. “We had a pipeline of loans and we either had to say to the borrowers, the customers, ‘we’re out of business, we’re not going to fund’—and there’s great risk to that, litigation risk, we had committed to fund. . . . When it’s between your ass and your image, you hold on to your ass.”¹⁹

On the same day that Countrywide’s board approved the \$11.5 billion draw-down—but before the company announced it publicly, the Merrill Lynch analyst Kenneth Bruce, who had reissued his “buy” rating on the company’s stock two days earlier, switched to “sell” with a “negative” outlook because of Countrywide’s funding pressures, adding, “if the market loses confidence in its ability to function properly, then the model can break. . . . If liquidations occur in a weak market, then it is possible for [Countrywide] to go bankrupt.”²⁰

The next day, as news of Bruce’s call spread, Countrywide informed markets about the drawdown. Moody’s downgraded its senior unsecured debt rating to the lowest tier of investment grade. Countrywide shares fell 11%, closing at \$18.95; for the year, the company’s stock was down 50%. The bad news led to an old-fashioned bank run. Mozilo singled out an August 16 *Los Angeles Times* article covering Bruce’s report, which, he said, “caused a run on our bank of \$8 billion on Monday.” The article spurred customers to withdraw their funds by noting specific addresses of Countrywide branches in southern California, Mozilo told the FCIC. A reporter “came out with a photographer and, you know, interviewed the people in line, and he created—it was just horrible. Horrible for the people, horrible for us. Totally unnecessary,” Mozilo said.²¹

Six days later, on August 22, Bank of America announced it would invest \$2 billion for a 16% stake in Countrywide. Both companies denied rumors that the nation’s biggest bank would soon acquire the mortgage lender. Mozilo told the press, “There was never a question about our survival”; he said the investment reinforced Countrywide’s position as one of the “strongest and best-run companies in the country.”²²

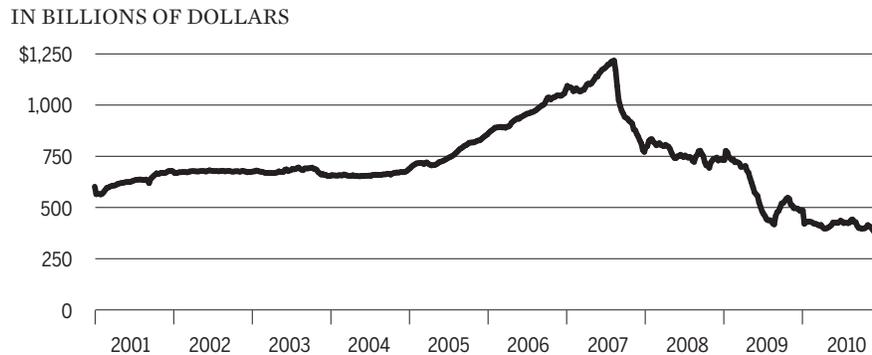
In October, Countrywide reported a net loss of \$1.2 billion, its first quarterly loss in 25 years. As charge-offs on its mortgage portfolio grew, Countrywide raised provisions for loan losses to \$934 million from only \$38 million one year earlier. On January 11, 2008, Bank of America issued a press release announcing a “definitive agreement” to purchase Countrywide for approximately \$4 billion. It said the combined entity would stop originating subprime loans and would expand programs to help distressed borrowers.

BNP PARIBAS: “THE RINGING OF THE BELL”

Meanwhile, problems in U.S. financial markets hit the largest French bank. On August 9, BNP Paribas SA suspended redemptions from three investment funds that had plunged 20% in less than two weeks. Total assets in those funds were \$2.2 billion, with a third of that amount in subprime securities rated AA or higher.²³ The bank said it would also stop calculating a fair market value for the funds because “the complete evaporation of liquidity in certain market segments of the US securitization

Asset-Backed Commercial Paper Outstanding

At the onset of the crisis in summer 2007, asset-backed commercial paper outstanding dropped as concerns about asset quality quickly spread. By the end of 2007, the amount outstanding had dropped nearly \$400 billion.



NOTE: Seasonally adjusted

SOURCE: Federal Reserve Board of Governors

Figure 13.1

market has made it impossible to value certain assets fairly regardless of their quality or credit rating.”²⁴

In retrospect, many investors regarded the suspension of the French funds as the beginning of the 2007 liquidity crisis. August 9 “was the ringing of the bell” for short-term funding markets, Paul McCulley, a managing director at PIMCO, told the FCIC. “The buyers went on a buyer strike and simply weren’t rolling.”²⁵ That is, they stopped rolling over their commercial paper and instead demanded payment on their loans. On August 9, the interest rates for overnight lending of A-1 rated asset-backed commercial paper rose from 5.39% to 5.75%—the highest level since January 2001. It would continue rising unevenly, hitting 6.14% in August 10, 2007. Figure 13.1 shows how, in response, lending declined.

In August alone, the asset-backed commercial paper market shrank by \$190 billion, or 20%. On August 6, subprime lender American Home Mortgage’s asset-backed commercial paper program invoked its privilege of postponing repayment, trapping lenders’ money for several months. Lenders quickly withdrew from programs with similar provisions, which shrank that market from \$35 billion to \$4 billion between May and August.²⁶

The paper that did sell had significantly shorter maturities, reflecting creditors’ desire to reassess their counterparties’ creditworthiness as frequently as possible. The average maturity of all asset-backed commercial paper in the United States fell from

about 31 days in late July to about 23 days by mid-September, though the overwhelming majority was issued for just 1 to 4 days.²⁷

Disruptions quickly spread to other parts of the money market. In a flight to quality, investors dumped their repo and commercial paper holdings and increased their holdings in seemingly safer money market funds and Treasury bonds. Market participants, unsure of each other's potential subprime exposures, scrambled to amass funds for their own liquidity. Banks became less willing to lend to each other. A closely watched indicator of interbank lending rates, called the one-month LIBOR-OIS spread, increased, signifying that banks were concerned about the credit risk involved in lending to each other. On August 9, it rose sharply, increasing three-to fourfold over historical values, and by September 7, it climbed by another 150%. In 2008, it would peak much higher.

The panic in the repo, commercial paper, and interbank markets was met by immediate government action. On August 10, the day after BNP Paribas suspended redemptions, the Fed announced that it would “provid[e] liquidity as necessary to facilitate the orderly functioning of financial markets,”²⁸ and the European Central Bank infused billions of Euros into overnight lending markets. On August 17, the Fed cut the discount rate by 50 basis points—from 6.25% to 5.75%. This would be the first of many such cuts aimed at increasing liquidity. The Fed also extended the term of discount-window lending to 30 days (from the usual overnight or very short-term period) to offer banks a more stable source of funds. On the same day, the Fed's FOMC released a statement acknowledging the continued market deterioration and promising that it was “prepared to act as needed to mitigate the adverse effects on the economy.”²⁹

SIVs: “AN OASIS OF CALM”

In August, the turmoil in asset-backed commercial paper markets hit the market for structured investment vehicles, or SIVs, even though most of these programs had little subprime mortgage exposure. SIVs had a stable history since their introduction in 1988. These investments had weathered a number of credit crises—even through early summer of 2007, as noted in a Moody's report issued on July 20, 2007, titled “SIVs: An Oasis of Calm in the Sub-prime Maelstrom.”³⁰

Unlike typical asset-backed commercial paper programs, SIVs were funded primarily through medium-term notes—bonds maturing in one to five years. SIVs held significant amounts of highly liquid assets and marked those assets to market prices daily or weekly, which allowed them to operate without explicit liquidity support from their sponsors.

The SIV sector tripled in assets between 2004 and 2007. On the eve of the crisis, there were 36 SIVs with almost \$400 billion in assets.³¹ About one-quarter of that money was invested in mortgage-backed securities or in CDOs, but only 6% was invested in subprime mortgage-backed securities and CDOs holding mortgage-backed securities.

Not surprisingly, the first SIVs to fail were concentrated in subprime mortgage-

backed securities, mortgage-related CDOs, or both. These included Cheyne Finance (managed by London-based Cheyne Capital Management), Rhinebridge (another IKB program), Golden Key, and Mainsail II (both structured by Barclays Capital). Between August and October, each of these four was forced to restructure or liquidate.

Investors soon ran from even the safer SIVs. “The media was quite happy to sensationalize the collapse of the next ‘leaking SIV’ or the next ‘SIV-positive’ institution,” then-Moody’s managing director Henry Tabé told the FCIC.³² The situation was complicated by the SIVs’ lack of transparency. “In a context of opacity about where risk resides, . . . a general distrust has contaminated many asset classes. What had once been liquid is now illiquid. Good collateral cannot be sold or financed at anything approaching its true value,” Moody’s wrote on September 5.³³

Even high-quality assets that had nothing to do with the mortgage market were declining in value. One SIV marked down a CDO to seven cents on the dollar while it was still rated triple-A.³⁴ To raise cash, managers sold assets. But selling high-quality assets into a declining market depressed the prices of these unimpaired securities and pushed down the market values of other SIV portfolios.

By the end of November, SIVs still in operation had liquidated 23% of their portfolios, on average.³⁵ Sponsors rescued some SIVs. Other SIVs restructured or liquidated; some investors had to wait a year or more to receive payments and, even then, recouped only some of their money. In the case of Rhinebridge, investors lost 45% and only gradually received their payments over the next year.³⁶ Investors in one SIV, Sigma, lost more than 95%.³⁷ As of fall 2010, not a single SIV remained in its original form. The subprime crisis had brought to its knees a historically resilient market in which losses due to subprime mortgage defaults had been, if anything, modest and localized.

MONEY FUNDS AND OTHER INVESTORS: “DRINK[ING] FROM A FIRE HOSE”

The next dominoes were the money market funds and other funds. Most were sponsored by investment banks, bank holding companies, or “mutual fund complexes” such as Fidelity, Vanguard, and Federated. Under SEC regulations, money market funds that serve retail investors must keep two sets of accounting books, one reflecting the price they paid for securities and the other the fund’s mark-to-market value (the “shadow price,” in market parlance). However, funds do not have to disclose the shadow price unless the fund’s net asset value (NAV) has fallen by 0.5% below \$1 (to \$0.995) per share. Such a decline in market value is known as “breaking the buck” and generally leads to a fund’s collapse. It can happen, for example, if just 5% of a fund’s portfolio is in an investment that loses just 10% of its value. So a fund manager cannot afford big risks.

But SIVs were considered very safe investments—they always had been—and were widely held by money market funds. In fall 2007, dozens of money market funds faced losses on SIVs and other asset-backed commercial paper. To prevent their funds from breaking the buck, at least 44 sponsors, including large banks such

as Bank of America, US Bancorp, and SunTrust, purchased SIV assets from their money market funds.³⁸

Similar dramas played out in the less-regulated realm of the money market sector known as enhanced cash funds. These funds serve not retail investors but rather “qualified purchasers,” which may include wealthy investors who invest \$25 million or more. Enhanced cash funds fall outside most SEC regulations and disclosure requirements. Because they have much higher investment thresholds than retail funds, and because they face less regulation, investors expect somewhat riskier investing and higher returns. Nonetheless, these funds also aim to maintain a \$1 net asset value.

As the market turned, some of these funds did break the buck, while the sponsors of others stepped in to support their value. The \$5 billion GE Asset Management Trust Enhanced Cash Trust, a GE-sponsored fund that managed GE’s own pension and employee benefit assets, ran aground in the summer; it had 50% of its assets in mortgage-backed securities. When the fund reportedly lost \$200 million and closed in November 2007, investors redeemed their interests at \$0.96.³⁹ Bank of America supported its Strategic Cash Portfolio—the nation’s largest enhanced cash fund, with \$40 billion in assets at its peak—after one of that fund’s largest investors withdrew \$20 billion in November 2007.⁴⁰

An interesting case study is provided by the meteoric rise and decline of the Credit Suisse Institutional Money Market Prime Fund. The fund sought to attract investors through Internet-based trading platforms called “portals,” which supplied an estimated \$300 billion to money market funds and other funds. Investors used these portals to quickly move their cash to the highest-yielding fund. Posting a higher return could attract significant funds: one money market fund manager later compared the use of portal money to “drink[ing] from a fire hose.”⁴¹ But the money could vanish just as quickly. The Credit Suisse fund posted the highest returns in the industry during the 12 months before the liquidity crisis, and increased its assets from about \$5 billion in the summer of 2006 to more than \$25 billion in the summer of 2007. To deliver those high returns and attract investors, though, it focused on structured finance products, including CDOs and SIVs such as Cheyne. When investors became concerned about such assets, they yanked about \$10 billion out of the fund in August 2007 alone. Credit Suisse, the Swiss bank that sponsored the fund, was forced to bail it out, purchasing \$5.7 billion of assets in August.⁴² The episode highlights the risks of money market funds’ relying on “hot money”—that is, institutional investors who move quickly in and out of funds in search of the highest returns.

The losses on SIVs and other mortgage-tainted investments also battered local government investment pools across the country, some of which held billions of dollars in these securities. Pooling provides municipalities, school districts, and other government agencies with economies of scale, investment diversification, and liquidity. In some cases, participation is mandatory.

With \$27 billion in assets, Florida’s local government investment pool was the largest in the country, and “intended to operate like a highly liquid, low-risk money market fund, with securities like cash, certificates of deposit, . . . U.S. Treasury bills,

and bonds issued by other U.S. government agencies,” as an investigation by the state legislature noted.⁴³ But by November 2007, because of ratings downgrades, the fund held at least \$1.5 billion in securities that no longer met the state’s requirements. It had more than \$2 billion in SIVs and other distressed securities, of which about \$725 million had already defaulted. And it held \$650 million in Countrywide certificates of deposit with maturities that stretched out as far as June 2008.⁴⁴ In early November, following a series of news reports, the fund suffered a run. Local governments withdrew \$8 billion in just two weeks. Orange and Pinellas counties pulled out their entire investments. On November 29, the fund’s managers stopped all withdrawals. Florida’s was the hardest hit, but other state investment pools also took significant losses on SIVs and other mortgage-related holdings.

COMMISSION CONCLUSIONS ON CHAPTER 13

The Commission concludes that the shadow banking system was permitted to grow to rival the commercial banking system with inadequate supervision and regulation. That system was very fragile due to high leverage, short-term funding, risky assets, inadequate liquidity, and the lack of a federal backstop. When the mortgage market collapsed and financial firms began to abandon the commercial paper and repo lending markets, some institutions depending on them for funding their operations failed or, later in the crisis, had to be rescued. These markets and other interconnections created contagion, as the crisis spread even to markets and firms that had little or no direct exposure to the mortgage market.

In addition, regulation and supervision of traditional banking had been weakened significantly, allowing commercial banks and thrifts to operate with fewer constraints and to engage in a wider range of financial activities, including activities in the shadow banking system.

The financial sector, which grew enormously in the years leading up to the financial crisis, wielded great political power to weaken institutional supervision and market regulation of both the shadow banking system and the traditional banking system. This deregulation made the financial system especially vulnerable to the financial crisis and exacerbated its effects.