7. COMDER: THE ORIGINS OF OTC TRADE REPOSITORIES AND THE BENEFITS OF THE NEW DERIVATIVES TRADE REPOSITORY IN CHILE; PERSONAL VIEW BY PABLO RODRIGUEZ, CRO, COMDER CCP

Abstract

The opacity of the derivatives market was at the center of the stage of the GFC and fueled the panic seen during the worse days of the crisis. The American International Group ("AIG") problems revealed during the weekend of the Lehman default demonstrated that not enough information was available about the risk exposures of large financial institutions to the derivatives instruments and other asset classes and, for that reason, regulators were ready to make the necessary changes to improve transparency of key financial firms and restore confidence in the market. The inclusion of OTC derivatives Trade Repositories ("TR") was one of the big changes.

By centralizing the collection, storage, and dissemination of data, a TR can enhance the transparency of transaction information to relevant authorities and the public and, most importantly, they can promote financial stability.

Chilean regulators and the local financial community already benefited from the information provided by the local TR, especially to manage financial stability. Now, Chilean regulators can do stress tests of derivatives positions at the industry level, size collateral calls (especially in non-central bank money) and analyze the impact of extreme market volatility on non-bank institutions. In other words, Chilean regulators now have enough information about the risk exposures of large financial institutions in Chile.

7.1 PANIC FUELED BY OPACITY IS WORSENED DURING A FINANCIAL CRISIS

For the readers of my 2021 AMR case study, you will remember my tales as a market risk manager during the GFC. During this period, we witnessed broad panic across the markets, and I too experienced this panic myself. In fact, during the worst moments of the financial crisis, I decided to take some of my money out of the bank and keep it under my mattress. What created that panic in my mind was always the lack of information about the large financial institutions, especially in terms of derivatives (at that time, I was in charge of the market risk area of the IRD in a bank) and what was in its balance sheets, or using more formal academic words: panic was always fueled in my mind by the opacity in the information available to the public.

In the last years, many of the top US regulators in charge during the 2007-2009 GFC told their experiences in openly written books or through interviews about the GFC. Reading the books and interviews, particularly of the former Board of Governors of the Federal Reserve System Chairman Ben Bernanke, the former Treasury Secretary Hank Paulson, the former Federal Reserve Bank of New York ("NY Fed") Chairman Tim Geithner, and others emphasized the panic that they felt especially between September 13 to 16 of 2008, during the weekend of Lehman default. Mr. Bernanke, in his Nobel prize lecture, said: "I concluded that the financial panic was the primary cause of the GFC"[107].

But it was not Lehman's default that was the worst moment for Chairman Bernanke. He generally refers that the most terrifying moment of the crisis, and also the one that made him most angry, was the AIG situation that ended with an 85-billion-dollar bailout on September 16, 2008. Paradoxically, the size of the problem was just noticed by regulators by mid-day on September 13, 2008[108],[109].

[107] Ben S. Bernanke, Distinguished Senior Fellow, Brookings Institution, December 8, 2022. **Banking, Credit, and Economic Fluctuations,** Nobel Lecture.
[108] 60 minutes interview to Chairman Ben Bernanke, minute 5:15 of the interview
[109] Day 2: Responding to the Global Financial Crisis, former Federal Reserve Chairman Ben Bernanke and former Treasury Secretaries Tim Geithner and Hank Paulson, The Brookings Institution, minute 11 of the interview

7.2 THE AIG "SAGA"

Even though regulators had been dealing with the financial crisis for almost a year, the AIG situation was not a big concern for them until the weekend of the Lehman default. Regulators knew that AIG was having problems—its shares prices had been moving down all the previous week—but nobody expected a catastrophic situation with financial stability consequences globally. It was just during the mid-day of Saturday, September 13, 2008 that the bad situation of AIG started to surround the meeting rooms at the NY Fed, where all the regulators and bankers of Wall Street were meeting together to save Lehman Brothers. Around noon on that day, Treasury Secretary Hank Paulson received a piece of paper showing AIG's day-by-day liquidity. According to AIG's projections, the company would run out of cash in a few days[110, 111, 112, 113].

AIG found itself in such a situation mainly due to the activities of one division within the company, AIG Financial Products. That division wrote credit default swaps ("CDS") on over USD 500 billion of assets, including USD 78 billion on collateralized debt obligations relating to residential mortgages of which USD 63 billion had exposure to subprime mortgages[114].

AIG officials admitted on that day that part of the AIG liquidity problem stemmed from losses in its derivatives business and the impact of an imminent credit rating downgrade that would trigger the requirement to post additional collateral. That estimation of liquidity needs was around USD 40 billion on Saturday, then the next day (after Lehman was declared dead by regulators), the company's shortfall increased to USD 50 billion (USD 10 billion increase in just one day!). Finally, on September 16, 2008, the NY Fed provided an emergency USD 85 billion loan to keep AIG, a global company with about USD 1 trillion in assets before the financial crisis, from liquidity insolvency. At the end of the history, AIG lost USD 99 billion just in 2008 and received over USD 180 billion in taxpayer funds to prevent its default[115, 116].

After weeks of regulators communicating to the public that no more bailout or taxpayer money would be available to save another financial institution, they decided to rescue an insurance company. The argument given by the regulators was that the disorderly failure of AIG, the world's largest insurance company, would have undoubtedly led to even greater financial chaos and a far deeper economic slump than the very severe one that the world had already experienced[117].

This whole story reveals that the opacity of the derivatives market was at the center of the stage and fueled the panic seen during the worst days of the GFC. The AIG situation demonstrated that not enough was known about the risk exposures of key institutions to the derivatives instruments and other asset classes, and, for that reason, regulators were ready to make the necessary changes to improve transparency and restore confidence in the market.

7.3 G20 DERIVATIVES REFORMS, FMIs, CREATION OF TRs

As we know, the 2007-2009 GFC hit almost all developed nations and the G20 nations committed to make important regulatory reforms like Basel III framework – to support the resilience of the international banking system through higher capital as well as margin requirements for non-centrally cleared transactions, the OTC derivatives market reform where G20 leaders agreed to move it to central clearing and, where appropriate, exchange or electronic trading of standardized OTC derivatives, and the reform introducing reporting of all transactions to TRs.

The solution to the opacity in the derivatives markets was through the mandate of the G20 reforms that all OTC derivatives transactions should be reported to TRs. Essentially, a TR is an entity that maintains a centralized electronic record (database) of derivatives transaction data. For this reason, TRs have emerged as a new type of FMIs and have grown in importance in developed countries, particularly in the OTC derivatives market.

[110] Henry M. Paulson, On the Brink: Inside the Race to Stop the Collapse of the Global Financial System (2010)
[111] Timothy F. Geithner, Stress Test: Reflections on Financial Crises (2014)
[112] Ben S. Bernanke, The Courage to Act: A Memoir of a Crisis and Its Aftermath (2015)
[113] Fin. Crisis Inquiry Comm'n, Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States 352 (2011)
[114] AIG, Third Quarter 2007 Residential Mortgage Presentation, AIG 40 (8 November 2007)
[115] AIG, 2008 Annual Report, page 42
[116] Remarks of Commissioner Brian D. Quintenz, CFTC at the ICDA 39th Annual European Summit (Bürgenstock) (2018)
[117] Federal Reserve, Federal Reserve Board, with full support of the Treasury Department, authorizes the Federal Reserve Bank of New York to lend up to $85 billion to the American International Group (AIG) (September 2008)

At the same time, FMIs are multilateral systems among participating institutions, including the operator of the system, and it is broadly recognized that safe and efficient FMIs contribute to maintaining and promoting financial stability and economic growth. Due to the critical role that FMIs play in the markets, they have to be well managed and for that reason, regulators developed the PFMIs, which are the international standards for FMIs on risk management.

By centralizing the collection, storage, and dissemination of data, a TR can serve an important role in enhancing the transparency of transaction information to relevant authorities and the public, and the most important thing is that they are promoting financial stability. What we have seen in the last years is that the centralization and quality of the data that a TR maintains were able to improve the market transparency and the provision of this data to relevant authorities and the public in line with their respective information needs.

7.4 IMPLEMENTATION OF THE TR IN CHILE

Chile is not a member country of the G20, so the mandates mentioned before do not apply directly to Chile. However, Chile has been very fortunate to be a member of CPSS-IOSCO Steering Group which was responsible for the development of the PFMIs. For this reason, since the beginning of the implementation of the PFMIs standard, Chile has been promoting the implementation of the PFMIs to all local FMIs.

In 2015, the Central Bank of Chile and Chile's Ministry of Finance requested the World Bank to undertake a standalone Review of Standards and Codes ("ROSC") module of the PFMIs of the CPMI and IOSCO. This was a big step for Chile because it was the first recognition that the FMIs in Chile observe the standards written in the PFMIs.

But also, it was a big challenge for the Central Bank of Chile because, in the context of this PFMI assessment, it is worth noting that there was no recognition of a TR in Chile, or the legal and regulatory framework to cover TRs. Therefore, a formal assessment of TRs was not undertaken. The conclusion was that the Central Bank of Chile should develop a plan of action to remove the existing barriers – legal and technological – to develop a TR function that will enable Chilean authorities to meet international expectations and best practices in the global derivatives markets.

The Central Bank of Chile took the challenge and in the years after the assessment, all the legal and regulatory frameworks to mandate derivatives trade reporting were developed. Also, the Central Bank of Chile implemented the technological system that permits building a TR, which is called Integrated Derivatives Information System or SIID. In the established system, banks, institutional investors, and other residents that carry out derivative operations will report their transactions following the best practices and international recommendations.

The SIID started to release information on derivatives, traded by local banks, at the end of 2022, and as we will see in the next sections, the benefits of this information released by the Central Bank of Chile have been of high importance for all the Chilean market participants, and especially for ComDer, the derivatives Chilean Clearing House.

7.5 INFORMATION RELEASED BY THE CENTRAL BANK OF CHILE

Since the release of the SIID, the eyes of the Chilean financial community have been on the information provided by the Central Bank of Chile every day. The SIID has allowed the participants of these markets to access information not seen before. The information provided by the SIID is split into three different asset classes: FX, inflation, and rates.

The SIID shows the volume of derivatives traded by local banks. Also, keep in mind that Chile is a country with a nominal GDP of around 300 billion dollars. This information is to put in context the size of the local derivatives market. According to the SIID, the volume of FX products traded by local banks was 2.3 trillion dollars in the year 2022, split by 1.3 trillion in derivatives and 1 trillion in the spot market. Following the FX market, there was the IRD market with a yearly volume of 400 billion dollars in 2022. Finally, the smallest derivatives market in Chile was the inflation market with a volume of 200 billion dollars in 2022.

In terms of the desegregation of information provided by the SIID, here is where information started to get interesting. First, the SIID provided the volume traded by Chilean banks with the different types of counterparties named by: foreign entities, pension funds, insurance companies, brokerage houses, government institutions, real sector companies, and mutual funds.

Then the SIID also provides the information by the tenor which depends on the types of derivatives and how the time buckets are built. In the case of NDF, which is the most transacted derivative in Chile, the buckets are up to 7 days, 8 to 30 days, 31 to 90 days, 91 to 180 days, 181 to 360 days, 361 to 720 days, and more than 2 years. In the case of the IRD, the buckets presented are 3 months, 6 months, 9 months, 12 months, 18 months, 2 years, 5 years, 10 years, and more.

Third, and where the information gets even more interesting, is that the SIID provides the net volume by the side of the transactions done by counterparty types and by tenors. This means that in the case of NDFs, it is possible to know if counterparty types are buying or selling FX derivatives, and by which tenors. In the following chart, it is possible to appreciate how this information is shown.

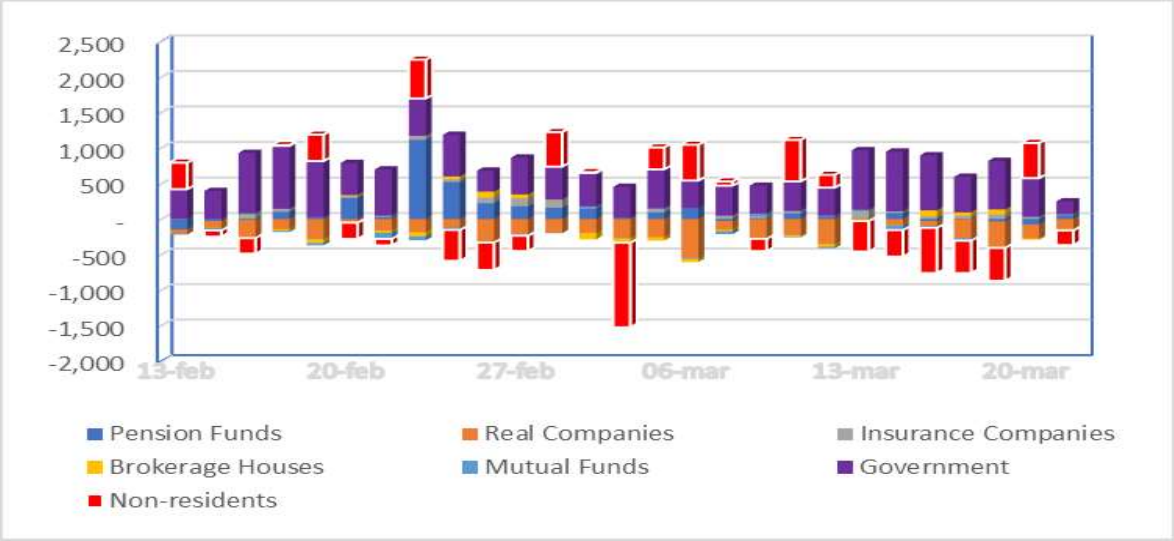

Figure 7-1 Net banks daily FX NDF turnover (millions of dollars)

For example, in this chart, it is possible to see how the FX intervention program is performed by the Central Bank of Chile every day (purple bar) and which sectors are absorbing the sales done by the Central Bank of Chile (you can see buying foreign entities represented by red bars).

Finally, and where all the information is useful for financial market stability is that the SIID also provides all the information previously explained for the outstanding position kept by the different counterparty types. In the next section, we will see all the benefits of this data for counterparty risk management purposes.

7.6 CONCLUSIONS

Since the release of the information presented by the SIID, there have been multiple benefits for the financial community in Chile. First, the data released by the Central Bank of Chile has been well received by the financial industry. It was possible to see this reception because, during Q1 of 2023, we did presentations to many top officials in the financial industry, in the public and the private sector, to show them the information provided by the SIID. It was incredible to see how everyone was surprised by the numbers. Remember that local banks in Chile traded ten times the Chilean GDP in derivatives. Everyone expressed gratitude for showing a complete map of the Chilean derivatives traded by local banks. It was something never seen before.

Second, the SIID is a big step related to the available information used by ComDer especially to manage counterparty risk in default scenarios. Now, it is possible to know with precision the liquidity in the markets for the derivatives

products cleared by ComDer. In addition, the information provided by the SIID of derivatives transactions done by counterparties different than banks permits the assessment of new possibilities of clearing, especially in client clearing.

Third, thanks to the SIID, the Central Bank of Chile, the Comision para el Mercado Financiero (local financial regulator), and the Minister of Finance will benefit from useful information to manage financial stability. In Chile, analysis like stress tests of derivatives positions at the industry level, collateral calls (especially in non-central bank money), and the impact of extreme market volatility on non-bank institutions are now possible thanks to the new Chilean TR. In other words, regulators now have enough information to know about the risk exposures of key institutions in Chile. Finally, I hope the story told here throughout this case study will help other countries outside of the G20 nations to develop TRs and benefit in the same way that Chile and its financial markets have done.