Journal of Financial Crises

Volume 4 | Issue 4

2022

Venezuela: Reserve Requirements, GFC

Corey N. Runkel
Yale School of Management

Follow this and additional works at: https://elischolar.library.yale.edu/journal-of-financial-crises

Part of the Economic History Commons, Economic Policy Commons, Finance Commons, Finance and Financial Management Commons, Growth and Development Commons, Policy Design, Analysis, and Evaluation Commons, Public Administration Commons, and the Public Policy Commons

Recommended Citation
Available at: https://elischolar.library.yale.edu/journal-of-financial-crises/vol4/iss4/29

This Case Study is brought to you for free and open access by the Journal of Financial Crises and EliScholar – A Digital Platform for Scholarly Publishing at Yale. For more information, please contact journalfinancialcrises@yale.edu.
READERS TAKE NOTICE:
As of April 2024, the YPFS Resource Library’s site domain has changed to https://elischolar.library.yale.edu/ypfs-financial-crisis-resource-library/.

Please be aware that upon clicking any of the URL references to the former Resource Library domains, either https://ypfs.som.yale.edu or https://ypfsresourcelibrary.blob.core.windows.net/, in the "References/Key Program Documents" section of a case study, readers will encounter a "page not found" error.

Readers can still retrieve a given resource cited within this case study on the new site by searching here for the title cited.

This case study is available in Journal of Financial Crises: https://elischolar.library.yale.edu/journal-of-financial-crisis/vol4/iss4/29
Venezuela: Reserve Requirements, GFC¹

Corey N. Runkel²

Yale Program on Financial Stability Case Study
December 22, 2022

Abstract

Leading up to the Global Financial Crisis (GFC), the Banco Central de Venezuela (BCV) sought to tamp down inflation by raising its interest rate target and by raising the marginal reserve requirement for banks, which it had introduced in 2006. By late 2008, the GFC began to hit Venezuelan banks and the country’s public oil producer (PDVSA). Widespread deposit withdrawals squeezed banks and pushed the interbank lending rate to 28%. The BCV responded in December 2008 by lowering the marginal reserve requirement, applicable to deposits above 90 billion bolívares (USD 4.2 million), from 30% to 27% of deposits. It held the minimum cash reserve requirement at 17%. The global recession also cut into the revenue of PDVSA, the country’s biggest exporter. To free up bank liquidity for the purchase of PDVSA bonds and stimulate the economy, the BCV cut the marginal requirement three times between June and October 2010, setting it equal to the minimum requirement of 17%. The first cut in the marginal reserve requirement, from 30% to 27%, released VEF 6 billion (USD 2.8 billion) of liquidity into the financial system.

Keywords: Banco Central de Venezuela (BCV), liquidity rules, marginal requirement, PDVSA reserve ratio, reserve requirements

¹ This case study is part of the Yale Program on Financial Stability (YPFS) selection of New Bagehot Project modules considering the adjustment of reserve requirements. Cases are available from the Journal of Financial Crises at https://elischolar.library.yale.edu/journal-of-financial-crisis/.
² Research Associate, YPFS, Yale School of Management.
Overview

In the years leading to the Global Financial Crisis (GFC), monetary policy in Venezuela focused on countering inflation with high interest rates, the absorption of liquidity from the banking sector, and a higher marginal reserve requirement ratio—a tool the Banco Central de Venezuela (BCV) introduced in 2006 (Arreaza-Coll, Huskey, and Zumeta 2009; Leonard 2012). Insulated by low foreign ownership and successful attempts to de-dollarize the banking system, Venezuelan banks were spared from the intense, sudden credit crunches that seized its neighbors. However, falling oil revenue caused by the GFC manifested in late 2008 as declining public-sector deposits. The public deposit base shrank by 55% at some small institutions, and interbank lending doubled in fall 2008, forcing interbank lending rates up from 9% to 28% by December. (Economist Intelligence Unit 2009). The BCV, which had previously tried to inject liquidity directly by accepting government bonds and notes from banks in exchange for cash, announced on December 30, 2008, that it would lower the marginal reserve requirement from 30% to 27% of net obligations (Dow Jones 2007b; Economist Intelligence Unit 2009; Gaceta Oficial 2008, sec. 15).

At the time, Venezuela’s reserve management system consisted of deposits held in bolívars at the BCV. The central bank computed holdings as the average of daily holdings over each business week (Gaceta Oficial 2007, secs. 1, 3). A minimum requirement of 17% applied to all deposits, and a marginal requirement applied to deposits above 90 billion bolívars (USD 4.2 million) (Dow Jones 2007a; Gaceta Oficial 2007, secs. 13–15). Financial institutions held requirements against the Net Obligations Base, which consisted of most obligations except funds due to the BCV, the national government, and export finance companies (Gaceta Oficial 2007, sec. 13). The 17% reserve requirement for foreign currency obligations was also held in bolívars, with the BCV computing the conversion into respective foreign currencies. In conjunction with other tools, high reserve requirements effectively de-dollarized the Venezuelan deposit base as of 1999 (Arreaza-Coll, Huskey, and Zumeta 2009; Galindo and Leiderman 2005; Yeyati 2021).

Key Terms

<table>
<thead>
<tr>
<th>Purpose of Adjusting Reserve Requirement (RR): to increase liquidity in the banking sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range of RR Ratio (RRR) Peak-to-Trough</td>
</tr>
<tr>
<td>RRR Increase Period</td>
</tr>
<tr>
<td>RRR Decrease Period</td>
</tr>
<tr>
<td>Legal Authority</td>
</tr>
<tr>
<td>Interest/Remuneration on Reserves</td>
</tr>
<tr>
<td>Notable Features</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Outcomes</td>
</tr>
</tbody>
</table>
Recessionary conditions squeezed bank liquidity further in 2009, and the deposit base shrank. The BCV cut the marginal reserve requirement three more times, setting the rate at 23% on November 30 (Gaceta Oficial 2009b, sec. 15). The BCV did not change the marginal rate again until 2010. The minimum requirement remained at 17% throughout the crisis.

In 2009, the government also closed at least seven banks. Officially, these banks failed to meet reserve requirements or capital requirements, but international media reports also point to the banks' improper practices and to the possible political motivations of the administration of President Hugo Chávez (Economist Intelligence Unit 2010; Smith 2009). Some of these closures were due to the shutdown of the permuta market, which used government bonds as a medium to exchange dollars and bolívares. In its place, the administration created a bond-trading exchange run by the BCV that limited the amount of dollars entering Venezuela (The Economist 2010). As a result, individual government bond issues became more important for obtaining the dollars necessary for global trade at the same time the government needed bond financing to cushion the fall in oil revenue.

Ahead of a USD 3 billion Petróleos de Venezuela SA (PDVSA) bond issue in October 2010, the BCV lowered the marginal reserve requirement from 23% to 20% (Gaceta Oficial 2010a, sec. 15). As a national company and large bond issuer, PDVSA bonds were important to the bond-trading exchange. A week later, after the issue, the BCV lowered the requirement again, to 17%, matching the minimum reserve requirement (Gaceta Oficial 2010b, sec. 15). The BCV highlighted the importance of the bond issue and said in both cases that the changes were aimed at increasing bank liquidity (Reuters News 2010).

**Summary Evaluation**

Research did not discover any evaluations of the changes to Venezuelan reserve requirements. Following the changes, real deposits in Venezuelan banks climbed to their highest levels since 1999, in absolute terms and as a percentage of GDP (Yeyati 2021, figs. 25, 28). The first cut in the marginal reserve requirement, from 30% to 27%, released VEF 6 billion (USD 2.8 billion) of liquidity into the financial system (Economist Intelligence Unit 2009).

---

3 In 2008, the BCV replaced the bolívar (VEB) with the bolívar fuerte (VEF), at a rate of VEF 1 = VEB 1,000. Until January 2010, the official exchange rate was fixed at VEF 2.14 = USD 1; until the end of reserve-requirement changes, the official exchange rate doubled to VEF 4.29 = USD 1 (Fed 1995). The black market rate, for which data exists since June 23, 2010, averaged VEF 8.16 = USD 1 until October 26, 2010, the last decrease in the marginal reserve requirement (DolarToday 2010).
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GDP (SAAR, nominal GDP in LCU converted to USD)</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>GDP per capita (SAAR, nominal GDP in LCU converted to USD)</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Sovereign credit rating (five-year senior debt)</strong></td>
</tr>
<tr>
<td>2008</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>2009</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Size of banking system</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Size of banking system as a % of GDP</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Size of banking system as a % of financial system</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Five-bank concentration of banking system</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Foreign involvement in banking system</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Existence of deposit insurance</strong></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

*Sources: Bloomberg; World Bank Global Financial Development Database; World Bank Deposit Insurance Dataset.*
Key Design Decisions

1. Purpose: The BCV lowered reserve requirements to increase bank liquidity and then stimulate economic activity.

The BCV did not state any purpose for cutting the marginal reserve requirements on December 30, 2008. Two years later, after the BCV again cut the requirement, the Venezuelan press reported that the BCV’s motivation was to increase bank liquidity and combat the economic recession (Business News Americas 2010a; Business News Americas 2010b).

A February 2009 news article explained the December 2008 cut by noting that the Venezuelan banking sector faced withdrawals by the government due to election spending and Christmas bonuses. In all, deposits in public-sector banks fell 10.2% between September and November 2008, and small banks registered withdrawals as high as 55%. Interbank lending more than doubled in fall 2008, forcing the interbank rate up from 9% to 33% between October 2008 and January 2009 (Economist Intelligence Unit 2009).

The country faced an economic slide in 2009 and 2010, with real GDP contracting by 1.5%, the only Latin American economy to shrink in 2010. Flagging oil production and associated revenue strained the finances of PDVSA and the government. The government established a bond-trading system administered by the BCV in which participants could exchange bonds issued by PDVSA or the government at a rate of 1 US dollar to 5.3 bolívares. Issuance of government and PDVSA bonds thus became critical to financial markets, since the only alternative source for dollars was the black market, which sold dollars at a rate of 9 bolívares (The Economist 2010).
2. Part of a Package: It is unclear how connected the changes to reserve requirements and other crisis-fighting actions were.

Following the first cut of marginal reserve requirements in December 2008, the BCV also provided liquidity and capital to banks in need by accepting government bonds and notes from banks in exchange for cash, beginning in February 2009 (Dow Jones 2007b; Economist Intelligence Unit 2009). A month later, the BCV cut the marginal reserve requirement to 25%.

In May 2008, the government forced banks to sell USD 5 billion of foreign-issued, USD-linked notes and buy bolívares. Venezuelan banks had purchased these notes to skirt a regulation limiting banks’ holdings of foreign currency assets to 30% of assets; the forced sale of these notes saddled banks with large losses and raised concerns about their solvency (Reuters 2008; Romero 2008). In June 2008, the government eliminated a tax on bank withdrawals (Leonard 2012). In July 2008, global oil prices fell dramatically, hurting Venezuela’s dominant industry, already weak from lingering effects of labor strikes that began in 2003 (Millard et al. 2019). Later that month, following a year of efforts to nationalize more firms in the country, the Chávez administration announced the government would take over Banco de Venezuela, the country’s third-largest bank, which was owned by Santander, a large Spanish bank (Romero 2008).

3. Legal Authority: The Law of the BCV authorized the central bank to set reserve requirements.

Resolutions published in the official gazette cited articles 21(2), 51, 52, 53, and 55 of the Law of the BCV (Central Bank Law 2002). Collectively, these articles allowed the BCV Board of Directors to set reserve requirements and compelled banks to maintain the set amount.
Article 52 protected reserves from use by declaring them unseizable (*inembargables*). The resolutions also drew from a law that regulated banks.4

4. **Administration: The BCV administered reserve requirements.**

The BCV administered changes to reserve requirements. The Law of the BCV permitted the BCV to accept sight (demand) and term deposits, noting that demand deposits and reserve requirements formed the basis of Venezuela’s clearinghouse system (Central Bank Law 2002). According to the Law of the BCV, the central bank could remunerate reserves for monetary policy purposes under terms and conditions established by the BCV’s Board of Directors. The BCV established the calculation of the reserve requirement ratio, as well as the interest rate paid by banks and other financial institutions.

5. **Governance: The BCV Board of Directors published a resolution in Venezuela’s legal gazette notifying banks of changes to reserve requirements.**

The Board published a resolution in the official gazette whenever it changed the reserve requirements, which replaced the previous policy at a specified later date.

The Board of Directors consisted of the president of the BCV and six directors. Five of these directors were appointed for seven-year terms, while the sixth was a current economic minister other than the minister of finance (Central Bank Law 2002, sec. 15). The president of Venezuela appointed the BCV president and four directors, while the National Assembly appointed the remaining two (Central Bank Law 2002, sec. 16).

6. **Communication: The BCV conducted press conferences with journalists when announcing changes to reserve requirements.**

News articles demonstrate that officials held conferences when announcing their decisions, though research found no transcripts of those events (Reuters News 2010).

7. **Assets Qualifying as Reserves: Legal tenders held at the BCV were the only assets that qualified as reserves.**

Only bolívares held at the BCV satisfied the reserve requirement (Gaceta Oficial 2007, sec. 6).

8. **Reservable Liabilities: The BCV applied the RRR to most obligations.**

The BCV did not differentiate deposit obligations by the type of account. The minimum requirement was 17% of the Net Obligations Reserve Base, a requirement which remained steady between 2008 and 2010 (BCV 1998). The Net Obligations Reserve Base included all obligations as of July 14, 2006, except those held in trust or due to

---

4 The law was called el Decreto con Rango, Valor y Fuerza de Ley de Reforma Facial de la Ley General de Bancos y Otras Instituciones Financieras (Gaceta Oficial 2007).
• the BCV (Gaceta Oficial 2007, sec. 16)

• the Venezuelan government

• export finance companies

• public housing funds (such as el Fondo de Ahorro Obligatorio para la Vivienda; Gaceta Oficial 2007, sec. 4).

9. Computation: Reserves were held at the BCV, and it is unclear whether the balances were averaged at the time of RR adjustments during the GFC.

A resolution set forth in December 2021 indicated that the BCV used average end-of-day balances of banks in its accounts over a business week to calculate reserve holdings (Planchart 2022). However, it is unclear whether this averaging practice existed before the December 2021 Resolution and during or before the GFC.

10. Eligible Institutions: All financial institutions, except for the public development bank, microfinance institutions, and certain foreign exchange-oriented firms, were subject to reserve requirements.

The legal act creating and amending reserve requirements specified that all the following were required to hold reserves:

• Commercial banks

• Universal banks

• Investment banks

• Mortgage banks

• Financial leasing companies

• Savings and loan institutions

• Money-market funds (Gaceta Oficial 2007, secs. 2, 16).

Starting in July 2009, the BCV assigned a 12% RRR to development banks, including those engaged in microfinance activity, in which 70% of assets were microfinance loans (Gaceta Oficial 2009a, sec. 16).

Between fall 2009 and spring 2010, the government closed at least 12 banks (Cancel and Pons 2010). Figure 4 in the Appendix shows how these closures coincided with closures in the investment-bank and money-market-fund subsectors. These closures were putatively related to insufficient reserves or capital (nine banks had capital adequacy ratios less than 8% as of October 2008). As shown in Figure 2, banks did face shortages of reserves in late
2009 and early 2010. But international media reports also point to mismanagement by bankers: In addition to undercapitalization, “others were apparently lending top executives large sums of money, and at least one financier couldn’t prove where he got the money to buy his banks in the first place” (Smith 2009).

Figure 2: Reserve Holdings of Financial Leasing Companies, Universal Banks, Savings and Loan Institutions, Commercial Banks (clockwise from top left)

![Diagram of reserve holdings](source: BCV 2008)

11. **Timing:** The BCV lowered marginal reserve requirements after a recession hit Venezuela’s economy and, in the second set of changes, around large government bond issues.

In July 2006, the BCV added the marginal reserve requirement for banks, which applied to deposits above 90 billion bolívares, in an effort to aid smaller banks with total deposits (Dow Jones 2007a). Once the crisis started in 2008, changes came, first following bank failures and liquidity shortages, and then around problems in the real economy and government bond issues. The BCV tried to provide liquidity directly to ailing banks before it lowered reserve requirements (Economist Intelligence Unit 2009). The second round of changes was explicitly targeted at a USD 3 billion PDVSA bond issue (Reuters News 2010). PDVSA bonds
featured prominently in the Venezuelan foreign exchange system, and the oil producer needed cash acutely in 2010 as recessions abroad reduced oil revenue (The Economist 2010).

On December 30, 2008, the central bank cut the marginal reserve requirement from 30% to 27%, effective January 5, 2009 (Leonard 2012).

12. Changes in Reserve Requirements: The BCV did not differentiate liabilities, and foreign currency requirements remained fixed.

Between 2008 and 2010, the BCV cut the RRR from 30% to 17% (see Figure 3).

**Figure 3: Changes to BCV Reserve Requirements**

![Graph showing changes in reserve requirements](image)

**Sources:** Gaceta Oficial 2007; Gaceta Oficial 2008; Gaceta Oficial 2009b; Gaceta Oficial 2010a; Gaceta Oficial 2010b.

**Local/Foreign Currency Rates**

The foreign currency requirement, which was denominated in bolívars, remained at 17% between 2008 and 2010 (Gaceta Oficial 2007, sec. 15).

**Marginal Requirement**

The BCV lowered the marginal requirement, which applied to deposits in excess of 90 million bolívars, from 30% to 17% between January 2009 and October 2010 (see Figure 3) (Gaceta
Oficial 2007, sec. 15; Gaceta Oficial 2010b, sec. 15). Five individual changes constituted this decrease.

13. **Changes in Interest/Remuneration:** Although the BCV had the authority to remunerate reserves, no documents suggest that it did.

The Law of the BCV (Central Bank Law 2002, sec. 54) granted the Board of Directors the authority to remunerate reserves to further its monetary policy. Documents surveyed do not indicate a rate that the BCV paid, and the resolutions setting reserve requirements do not mention remuneration.

14. **Other Restrictions:** No other conditions were attached to the reserve requirements.

No documents suggest other conditions of lowered reserve requirements.

15. **Impact on Monetary Policy Transmission:** The BCV did not take actions to counteract the impact of reserve requirement changes on monetary policy.

Changes to reserve requirements were not met with any countervailing policies. The BCV’s other policies were also aimed at increasing banking system liquidity. The BCV lowered reserve requirements to provide liquidity to the banking sector ahead of the PDVSA bond issuance, which would remove liquidity from the system (Business News Americas 2010b).

16. **Duration:** The BCV did not announce when it would revert to its previous reserve requirements; marginal requirements remained at 17% until 2013.

The BCV gave no indication that reserve requirement changes would be temporary. On the contrary, in April 2009, a month after the BCV lowered the marginal requirement to 25%, the Planning and Development minister said that the cash reserve requirement “was already quite high, not just the reserve requirement but also a second complimentary [sic] level” (BBC News 2009). Reserve requirements remained at 17% until October 2013, when the minimum requirement was raised to 19% and the marginal requirement raised to 22% (BCV 1998).
References and Key Program Documents

Legal/Regulatory Guidance

A 2002 amendment to the central banking legislation (in Spanish).
https://ypfs.som.yale.edu/node/21806

Resolution lowering the marginal reserve requirement from 30% to 17% and containing information on reserve requirement computation, eligible institutions, and assets qualifying as reserves (in Spanish).
https://ypfs.som.yale.edu/library/normas-que-regiran-la-constitucion-del-encaje-bancario-norms-will-govern-constitution-bank

Resolution lowering the marginal reserve requirement from 30% to 27% of net obligations (in Spanish).
https://ypfs.som.yale.edu/library/normas-que-regiran-la-constitucion-del-encaje-bancario-norms-will-govern-constitution-0

Resolution assigning a 12% reserve requirement ratio to microfinance banks and development banks (in Spanish).
https://ypfs.som.yale.edu/node/21795

Resolution lowering the marginal reserve requirement to 23% (in Spanish).
https://ypfs.som.yale.edu/node/21796

(Gaceta Oficial 2010a) Gaceta Oficial de la Republica Bolivariana de Venezuela (Gaceta Oficial). 2010a. “Normas que Regirán la Constitución del Encaje Bancario (Norms that Will Govern the Constitution of the Bank Reserve).” Gaceta Oficial de la Republica Bolivariana de
Resolution lowering the marginal reserve requirement from 23% to 20% (in Spanish).
https://ypfs.som.yale.edu/node/21797/

https://ypfs.som.yale.edu/node/21798

Media Stories

https://ypfs.som.yale.edu/node/21829

https://ypfs.som.yale.edu/library/bcv-cuts-reserve-requirement

https://ypfs.som.yale.edu/node/21831

https://ypfs.som.yale.edu/node/21801/

https://ypfs.som.yale.edu/node/21802

(Dow Jones 2007a) Dow Jones. 2007a. “Venezuela Central Bank Adjusts Small Bank Reserve Requirement.” News article on the central bank's decision to impose marginal reserve requirements on
small-scale or newly created financial institutions.
https://ypfs.som.yale.edu/node/21832/

News article on the central bank’s decision to resume accepting government bonds from commercial banks in exchange for cash.
https://ypfs.som.yale.edu/node/21851

News article containing information on the central bank’s reserve requirement cut from 30% to 27% and the resulting liquidity released into the system.
https://ypfs.som.yale.edu/node/21853

Article on the Venezuelan government’s closure of several banks, including Banco Federal.
https://ypfs.som.yale.edu/node/21855

News article on the Venezuelan government ordering financial institutions to sell dollar-linked securities issued by foreign companies.
https://ypfs.som.yale.edu/library/venezuela-orders-banks-sell-dollar-linked-paper

News article on the Venezuelan central bank’s reduction of reserve requirements to 17% on October 27, 2010 to improve liquidity.
https://ypfs.som.yale.edu/node/21812/

News article on the central bank’s attempt to reassure depositors after President Chávez nationalized the country’s third largest bank.
https://ypfs.som.yale.edu/node/21813/

Article on the impact of the banking crisis on the Boli-bourgeoisie, bank closures by the government, and political support for Chávez.
https://ypfs.som.yale.edu/node/21814/
Article on the government’s closure of the permuta and establishment of SITME in response to the foreign exchange squeeze.
https://ypfs.som.yale.edu/node/21815/

Press Releases/Announcements

https://ypfs.som.yale.edu/node/21804/

https://ypfs.som.yale.edu/library/timeline-venezuelas-economic-rise-and-fall

Reports/Assessments

https://ypfs.som.yale.edu/node/21799

https://ypfs.som.yale.edu/library/official-deposits-and-reserves


Key Academic Papers

*Paper on monetary policy in a dollarized economy in Latin America.*
https://ypfs.som.yale.edu/node/21805/

https://ypfs.som.yale.edu/node/21803/

*Working paper summarizing lessons learned from several de-dollarizing attempts on Latin America since 2000.*
https://ypfs.som.yale.edu/node/21816/
Appendix

Figure 4: Reserve Holdings of Investment Banks and Money-Market Funds

Source: BCV 2008.

Copyright 2022 © Yale University. All rights reserved. To order copies of this material or to receive permission to reprint any or all of this document, please contact the Yale Program on Financial Stability at ydfs@yale.edu.