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## Article

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# Banking Crisis, Sovereign Debt Restructurings, and Financial Stability Policies in Cyprus During 2012–13

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Cyprus' domestic sovereign debt restructuring in 2013 was undertaken in the context of the country's economic adjustment programs. The government agreed to a € 9.0 billion program with the European Stability Mechanism on March 25, 2013 and a €1.0 billion program with the International Monetary Fund on May 13, 2013 (both programs were concluded at end-March 2016). In this context, Cyprus' second-largest bank, the Cyprus Popular Bank (CPB), was closed, and a unique bail-in mechanism was applied, with a one-time bank deposit levy (haircut) imposed on all uninsured deposits of CPB and on 47.5 percent of uninsured deposits of the largest commercial bank, the Bank of Cyprus (BoC). No insured deposit of Euro 100,000 or less would be affected. The debt restructuring was successful in attaining substantial debt relief, reducing the country's debt-to-GDP ratio, and restoring financial stability, although at a high cost for some depositors. The bail-in of both resident and nonresident depositors helped mitigate the burden of high bank recapitalization for the general public.

**JEL Codes:** F34, G15, H63

**Keywords:** Sovereign Debt; Sovereign Debt Restructuring; Cyprus; Banking Crisis; Financial Stability Policy;

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## I. Introduction

Since the start of the global financial crisis of 2007–08, many European banks faced significant challenges, which necessitated respective governments to intervene through large recapitalizations. Countries also fell into recession, with rising unemployment levels prompting governments to maintain relatively lax fiscal policies resulting in large primary fiscal deficits. Both of these factors led government debt levels to increase dramatically. In effect, the financial crisis had turned into a sovereign debt crisis for a number of European Union countries, with Greece being the most prominent casualty. Under these conditions, from running an average growth rate of around 4 percent and achieving close to full employment in 2004–08, the Cypriot economy turned to almost complete economic disarray in 2012–13.

In early 2013, government cash reserves were enough for only two to three months, market access had been lost for two years, tight capital controls and domestic financial restrictions had just been imposed to prevent excessive deposit outflows after the announcement of a deposit levy (haircut) in March 2013, and the real economy was already in deep recession, with unemployment having risen to unprecedented levels.<sup>1</sup> As possible causes can be identified the unsustainable credit expansion of the previous decade, a resulting property bubble, the extremely high recapitalization needs of the Cypriot banking system, and an unsustainable course in public finances. In particular, it has been reported that social transfers were on the rise even when unemployment was well within the natural level and welfare benefits were offered not on the basis of credible and uniform welfare criteria but rather on the basis of the electoral cycle and to satisfy pressure groups.

To prevent the economy from further decay, the government entered into an agreement with the ESM in April 2013 and with the IMF in May 2013.<sup>2</sup> The IMF Extended Fund Facility financing arrangement was

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1. The government temporarily froze uninsured deposits in Bank of Cyprus and imposed restrictions on all bank cash withdrawals and transfers within the country and across borders (see IMF 2013a for discussion).

2. The Cypriot authorities requested financial assistance from the ESM and the IMF in June 2012 (IMF 2012) and reached political agreement with the Eurogroup on March 25, 2013, and staff level agreement with the IMF on April 3, 2013 (IMF 2013c). This paper does not cover in detail the period between the request of the Cypriot authorities for financial assistance and reaching agreement with the ESM and the IMF. It should be noted that during this period the situation in Cyprus deteriorated significantly and available options for crisis resolution narrowed (see Patrick Honohan's analysis in the Independent Evaluation Office

supported by a macroeconomic adjustment program, through which the necessary financing could be safeguarded and agreed reforms be implemented. Accordingly, the government agreed to a restructuring (roll-over) of 1.0 billion of domestic bonds that were maturing within the program period (2013Q2–2016Q1) and implemented a number of frontloaded fiscal consolidation measures, mostly on the expenditure side (the ratio of expenditure cuts versus taxation measures was around five to one).<sup>3</sup>

Among the well-targeted expenditure policies were the linking of the growth of the wage bill with the nominal growth of the economy and the better targeting of social expenditures to those mostly in need. Maintaining a stable and competitive tax regime was considered a key aspect of the economic policy, as this was regarded a crucial prerequisite for new business and new investment. The prudent fiscal policy that was implemented resulted in high nominal and primary fiscal surpluses. As a result of these policies, general government debt came down significantly from 103 percent of GDP at end-2013 to around 94 percent of GDP at end-2017; however, the debt-to-GDP reached 118 percent at end-2020 due to the COVID-19 crisis.

Along with fiscal consolidation policies, measures to reform the banking system were also undertaken.<sup>4</sup> These measures targeted an oversized banking sector, with inadequate supervision, regulatory framework and corporate governance, that was responsible for the unsustainable credit expansion during the decade following EU accession. As a result, banks were significantly restructured and recapitalized, while they started refocusing their operations with a prudent risk-based approach to lending. Various government and banking sector actions led to a considerable decline in the level of non-performing loans (NPLs) in absolute terms, although they still remain high in percentage terms. In fact, NPLs were reduced from their peak of 28.9 billion in 2014 to around 11 billion in 2018, and 5.1 billion at end-2020.

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of the IMF, IMF Advice on Capital Flows, Background Paper BP/20-02/10, IMF Advice on Crisis-Driven Capital Controls in Europe).

3. In this paper, sovereign domestic and external debt is defined on the basis of the prevailing governing-law clauses in bond contracts.

4. Resolution of insolvent banks was a required prior action of the program, while various financial sector policies were undertaken as part of the program conditionality (IMF 2013a).

The NPL strategy implemented by the government involved the following measures: (i) strengthening of the effectiveness of the legal framework, (ii) a burden sharing scheme between stakeholders and state support to address the most challenging portfolio of NPLs, i.e., mortgage or SME loans having the primary residence as collateral, and (iii) addressing challenges faced by the Cyprus Cooperative Bank through its orderly resolution and the creation of an Asset Management Company that acquired its bad loans. Further, on the structural front, significant reform measures in the areas of financial management, civil service, welfare, pension and health care were taken, in an effort to establish the foundations for sustainable public finances and a sound economic model.

The Cyprus economy recovered relatively quickly, achieving real growth rates 3.2 percent in 2015, 6.4 percent in 2016, 5.2 percent in 2017 and 2018, and 3.1 in 2019, well above the corresponding E.U. averages, until 2020, where the Covid-19 pandemic caused a severe recession of -5.1 percent. The turnaround of the Cyprus economy was culminated by the return to an investment grade, which allowed Cyprus to subsequently borrow from markets at very competitive rates, i.e., international bond issuances of 100 million (6-year, 6.5 percent annual interest rate) through private placement in May 2014, a first trial on market access, and of 750 million (5-year, 4.75 percent annual interest rate) through syndication in June 2014, a market-wide transaction involving a number of investors.<sup>5</sup> In late February 2019, Cyprus issued a 1 billion 15-year bond with an interest rate of around 2.75 percent. Evidently, macroeconomic stability was re-established and confidence was restored within two years from the start of the ESM/IMF supported program.

This paper focuses on the process of Cyprus domestic sovereign debt restructuring and concurrent banking crisis; the ESM and IMF engagement in the debt and bank resolution process; the implications of the restructuring for Cyprus fiscal accounts, the banking sector, and the broad financial stability; and possible lessons that we can distill for future restructurings. Our analysis indicates that (i) the authorities seeking of assistance from the ESM and IMF helped in achieving relatively quick debt and banking resolutions, with substantial debt relief and rapid restoration of market access, (ii) the IMF and ESM involvement was beneficial in attaining efficient resolution processes,

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5. Republic of Cyprus Ministry of Finance (2014).

and (iii) the impact of instituted measures on banks, although especially harsh for depositors, has been positive in terms of enhancing efficiency and competitiveness of the banking sector and restoring financial stability.<sup>6</sup>

The rest of the paper is structured as follows: Section 2 briefly overviews the literature of sovereign debt restructurings and financial stability policy under debt distress. Section 3 explores the causes, process, IMF engagement, and outcome of Cyprus domestic sovereign debt restructuring in 2013. Section 4 sheds some light on the concurrent banking crisis and the financial stability aspects of the restructuring. Section 5 draws some policy lessons from the Cyprus experience of debt restructuring and related financial stability issues. Finally, Section 6 offers some concluding remarks.

## II. Literature Review

Several recent studies apply case-study analysis on selected sovereign debt restructuring episodes (e.g., Zettelmeyer et al. 2013, Sturzenegger and Zettelmeyer 2007, 2008, Finger and Mecagni 2007, Diaz-Cassou, Erce, and Vazquez-Zamora 2008, Asonuma et al. 2017, 2018, 2020).<sup>7</sup> These papers explore recurrent events of sovereign debt crises and crisis resolutions (debt exchange), debtor authorities' policy actions, IMF-supported programs, and associated banking and currency (BOP) crises. In parallel, some recent papers provide an overview of sovereign debt restructuring episodes in a comprehensive manner (e.g., Das et al. 2012, IMF 2013b, 2020). These papers provide a rich descriptive explanation of the process and outcome of debt restructurings, including creditor engagement and legal aspects (collective action clauses).

Our paper contributes to the literature by exploring the unique domestic sovereign debt restructuring in Cyprus, with ensuing banking and financial stability actions by the authorities. Our analysis of Cyprus relates to the literature on the sovereign-bank nexus in advanced and

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6. However, O'Brien (2013) has argued that "taxing insured bank deposits is the worst way to pay for a bailout" and Gulati and Buchheit (2013) have maintained that "putting insured depositors in Cypriot banks in harm's way was not their [European leaders] only option."

7. Our findings on Cyprus debt restructuring also relate to empirical literature on sovereign debt restructurings. See Benjamin and Wright (2013), Sturzenegger and Zettelmeyer (2007, 2008), Reinhart and Rogoff (2009), Cruces and Trebesch (2013), Asonuma and Trebesch (2016), Asonuma and Joo (2020), and Erce and Mallucchi (2018).

emerging economies. Empirical studies explore causality aspects between sovereign and banking crises and find mixed results (Reinhart and Rogoff 2011; Borensztein and Panizza 2009; Balteanu and Erce 2018). Theoretical studies explain how sovereign debt restructurings, in particular, restructurings of domestic debt, have detrimental impacts on banks credit through banks' direct exposure to the sovereigns. (Gennaioli et al. 2014; Soza-Padilla 2018).<sup>8</sup> Our analysis sheds light on the pertinent elements of the sovereign-bank nexus, when both sovereign debt and bank resolution issues are involved.

Lastly, our analysis of Cyprus' banking and financial stability actions relates to the literature on financial stability policy and public debt sustainability. Recent theoretical papers explore the desirability of bailout in the presence of banking and sovereign debt crises (Acharya et al. 2014; Cooper and Nikolov 2018, Fahri and Tirole 2018; Hur et al. 2021). Moreover, on the policy side, Das et al. (2010) provide broader implications of a debt management strategy and impacts of implementation on the sovereign government balance sheet and macroeconomics. We also contribute to the literature on the causes and consequences of the Cyprus banking crisis (e.g., Brown et al. 2018) by providing an account of the interlinkages between sovereign and banking vulnerabilities and of the financial stability implications of the effective policy responses to the bank resolution and domestic debt restructuring challenges.

### III. Cyprus' 2013 Domestic Debt Restructuring

#### *Causes*

During the global financial crisis of 2007-09, Cyprus experienced both large external and fiscal imbalances. On the external side, Cyprus had attracted significant non-resident capital inflows due to the low corporate tax regime and relatively higher deposit rates over the past years. This led to a sharp rise in assets of the banking sector to over eight times GDP. While these capital inflows contributed to filling the gap of large current account deficits, it resulted at the same time in a deterioration of the country's international investment position.

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8. Asonuma et al. (2021) empirically show that private external restructurings—foreign creditors, not domestic banks typically hold external debt—can have deleterious effects on both bank credit to the private sector and investment.

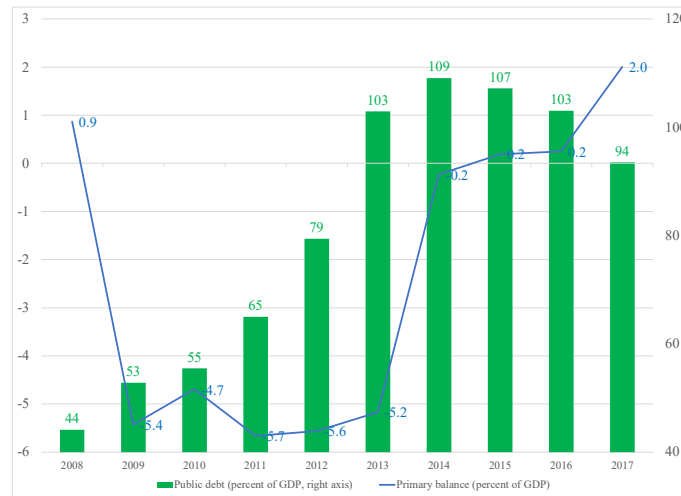


FIGURE 1. Cyprus Primary Balance and Public Debt (% of GDP)

Tight financial links to Greece exacerbated the external imbalances, as the crisis intensified. Over time, these links had developed to be very strong: by end-2011, bank loans to Greek residents and holdings of Greek government bonds reached 130 and 30 percent of GDP, respectively. Immediately after the 2010 debt crisis in Greece, Cyprus sovereign debt spreads started soaring until it lost market access in mid-2011. The economy fell into recession in late 2011, exacerbating the correction of the housing market that had started in 2009. This, together with the Greek debt restructuring, devastated banks' balance sheets.

On the fiscal side, Cyprus had maintained relatively lax fiscal policies since its entry in the Eurozone in 2008. A 4 percent GDP stimulus package, combined with some revenue erosion following the global financial crisis, and the beginning of a correction of a real estate boom led to a primary fiscal deficit of 5.4 percent of GDP in 2009. In the following years, Cyprus continued to run high primary deficits of around 4.7–5.7 percent until 2013. This deterioration in fiscal policy stance, combined with financial assistance to the banking sector in the form of bonds issued in exchange for shares (accounting for 12 percent of domestic public debt), resulted in a sharp surge in the public debt, to 103 percent of GDP by 2013, as shown in Figure 1.



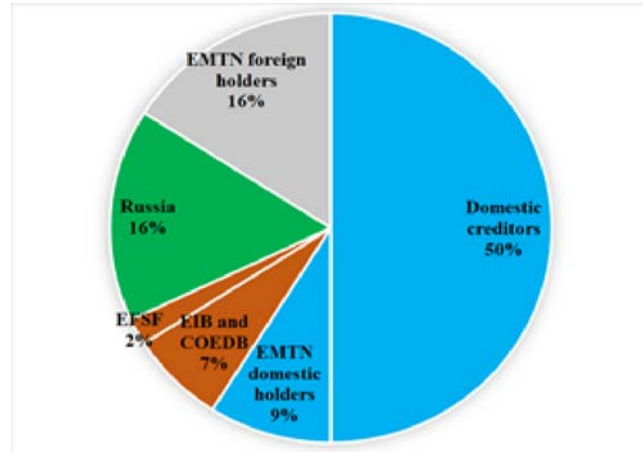


FIGURE 2A. Creditor Composition of Public Debt, 2012 Q4

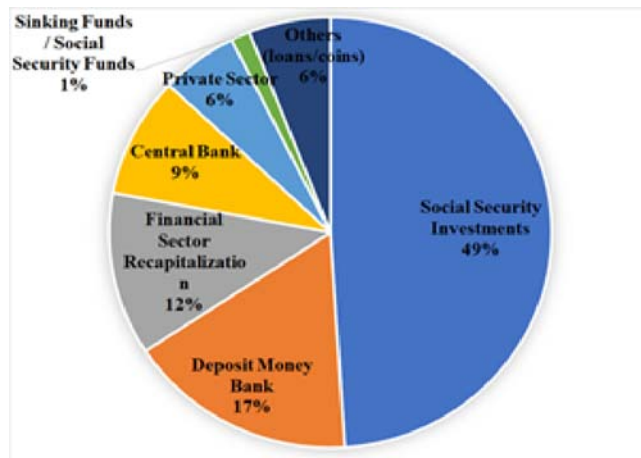


FIGURE 2B. Creditor Composition of Domestic Public Debt, 2012 Q4

At the end of 2012, domestic public debt had reached €15.5 billion (80 percent of GDP), with 59.6 percent of public debt being held by domestic institutions and 41.4 percent by foreign institutions (Figure 2-i). On the foreign side, public debt was held by multilateral, bilateral and commercial creditors. On the domestic side, social security investments and the financial sector's recapitalization accounted for 49

and 12 percent of domestic public debt, respectively (Figure 2-ii). Also, deposit money banks held 17 percent of domestic public debt in the forms of long-term government bonds and short-term T-bills; the Cyprus Central Bank held 17 percent of public debt in the form of loans (granted before accession to the EU); and the private sector held 6 percent of public domestic debt in the forms of long-term government bonds, retail securities, and T-bills.

Amid mounting concerns over the potential fiscal needs from the emerging banking sector problems and a broad fiscal inaction, sovereign spreads remained elevated since their sharp increase in June 2011, eventually culminating in the loss of market access. Standard and Poor's (S&P) downgraded Cyprus's long-term local currency government debt to CCC+ in December 2012, and Moody's followed in January 2013 with a Caa3 rating.

Under these circumstances, the Cypriot authorities requested financial assistance from their Eurozone partners and the IMF in June 2012. The resulting rescue programs included the restructuring of €1.0 billion of domestic bonds that were due to mature within the 3-year program as a requirement (determined by the DSA exercise). It is worth noting that the total value of domestic bonds maturing during the program period of 2013Q2–2016 Q1 was about €1.75 billion. Thus, the restructured bonds comprised about 57 percent of the value of domestic bonds maturing in the program period. More details on the domestic debt restructuring (i.e., restructuring perimeter and terms) are provided in the next section.

### *Process*

Cyprus' strictly preemptive debt restructuring was quick and smooth in reaching agreements with domestic creditors.<sup>9</sup> This domestic debt restructuring enabled the authorities to restore debt sustainability and thus fulfill the main requirement under the program.<sup>10</sup> The transaction was executed in June 2013 solely by Cyprus Public Debt Management Office (PDMO), after consulting the domestic banks (holders of the bonds) without appointing any coordinating or supervisory

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9. A strictly preemptive restructuring is defined as a restructuring which is implemented with no missed payments (no legal default), see Asonuma and Trebesch (2016).

10. Asonuma and Papaioannou (2016) classify the 2013 Cyprus debt restructuring as strictly preemptive, with a duration of 1.5 months.

intermediary. Based on the voluntary debt workout and engagement strategy, the PDMO does not consider it as a debt restructuring. As indicated before, external debt was not part of the debt restructuring.

In March 2013, a financial assistance package was agreed between the Republic of Cyprus and the troika (consisting of the European Commission, the ECB and the IMF). On May 15, 2013, the IMF Executive Board approved a three-year EFF arrangement, in support of a program to restore debt sustainability that included a domestic debt restructuring. The Cyprus authorities concurrently announced the negotiations with domestic commercial creditors. According to IMF (2013a), the authorities committed to identify measures as needed to address legal, administrative, or other impediments affecting the restructuring of viable borrowers while preserving credit discipline. The authorities aimed to take a market-based voluntary debt workout underpinned by measures to enforce the legal framework.

By targeting only domestic debt, the restructuring was in favor of external official (bilateral and multilateral) and commercial creditors (Figure 2 i–ii). Such a difference in treatment aimed to restore international capital market access quickly, minimize spillover effects on the financial sector from external shocks, and secure official financing. Among domestic debt instruments, the restructuring perimeter covered only long-term government bonds (remaining maturity of 0.5 years on average) and excluded long-term saving bonds, loans, and short-term T-bills.

The authorities' effective engagement strategy with domestic creditors facilitated a swift negotiation process. In particular, after the debt restructuring proposal, the PDMO identified the holders of domestic bonds maturing in the program period (€1.75 billion), restricting its search only to domestic banking institutions. Then, the PDMO started summing up the banks' holdings of these bonds, starting from the biggest bank, until it reached the amount of €1.0 billion. Subsequently, the holders of this amount were called and asked if they were willing to extend the maturities of their holdings (all other terms, including interest rates, were kept the same as the original bonds). The banks responded that they were willing to do the transaction, knowing that the authorities had committed to the exchange as part of the ESM/IMF supported program.<sup>11</sup> On June 27, 2013, a debt restructuring

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11. Only three domestic banks participated (Cooperative Central Bank, Bank of Cyprus, Hellenic Bank). Other holders, such as Greek banks, pension and provident funds, and retail

proposal was launched by the authorities, which gave the opportunity to all other holders to submit a bid if they wished to do so (no other holders were interested to participate).<sup>12</sup> Commercial debt eligible for restructuring comprised of domestic bonds maturing in 2013Q2–16Q1, in total of €1 billion. Neither domestic loans nor foreign debt was included in restructuring perimeters.

Finally, the transaction was executed and the results were published on July 1, 2013.<sup>13</sup> One old instrument due July 2013 accounted for 66.5 percent of the outstanding debt subject to exchange. The rest of bonds were due from January 2014 to March 2016. Five new bonds were issued, extending the maturities of the original bonds, with the rest of their original terms being unchanged. Financial and legal terms at the exchange can be summarized as follows (Table 1):

- No principal haircut. Around €1 billion new euro-denominated bonds were issued without face-value reduction.
- Maturity extension by 6.3 years. Maturities of new bonds spanned 2019–23, extended from 0.5 years to 6.8 years on average.
- No coupon rate reduction. Fixed annual interest rate structure of 4.5–6.0 percent in old instruments remained unchanged in new instruments.
- NPV haircut (recovery rates). Using a discount rate of 12.5–13.2 percent (exit yields), NPV haircut was 35.8 percent on average.<sup>14,15,16</sup>

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investors, did not participate.

12. Republic of Cyprus Ministry of Finance (2013a).

13. Republic of Cyprus Ministry of Finance (2013b).

14. Sturzenegger and Zettelmeyer (2008) define NPV haircut as  $[1 - (\text{present value of new instruments}) / (\text{present value of old instruments})]$ , where present values of new and old instruments are discounted by exit yields of new instruments.

15. Using a uniform discount rate of 10 percent as in Benjamin and Wright (2013), the NPV haircut is estimated at 26.2 percent. In addition to the assumed discount rate (exit yield), individual creditors' bond holdings (size and composition) at the time of a sovereign debt restructuring determine their NPV haircuts, irrespective of their investment horizons, i.e., whether they hold their bonds to maturity or not.

16. Domestic banks were estimated to have suffered higher NPV losses at the time of the exchange due to perceived higher exit yields because of market (primarily domestic banks) expectations of a high likelihood of default in the near future. However, NPV losses were reevaluated (became smaller) as bond yields went down quickly (i.e., bond prices recovered) following market expectations of a lower likelihood of default in the near future.

**TABLE 1. Cyprus Commercial Debt Restructuring 2013: Deal Structure**

	<b>Old Instruments</b>	<b>New Instruments</b>
	Domestic Bonds	Domestic Bonds
	due 2013–16	due 2019–23
	4.5% – 6.0%	4.5% – 6.0%
Number of instruments	11	5
Face value haircut (euro millions)	1,002	1,002
Maturity	2013–15	2019–23
Remaining maturity (years)	0 – 2.7	6 – 10
Fixed coupon rate	4.5%, 4.75%, 5%	4.5%, 4.75%, 5%
	5.25%, 6%	5.25%, 6%
Repayment profile	at maturity	at maturity
Present value on 7/2013 1/	100.9%	64.6%
NPV haircut (recovery rates) 2/	35.8% (64.2%)	
Face value haircut	0%	
Market haircut 3/	35.4% (64.6%)	
Exchange recovery rate 4/	84.0%	
Participation rate	100%	
CACs triggered	No	

**Notes:** 1/ Discount rates at 12.5-13.2% which were exit yields at completion of exchange (on 7/1/2013 - the first transaction day when yields were recorded after completion of restructuring). 2/ NPV haircut is defined as  $(1 - \text{present value of new debt} / \text{present value of old debt})$  as in Sturzenegger and Zettelmeyer (2007, 2008). Present value of new debt and old debt is computed with the same discount rate. 3/ Market haircut is defined as  $(1 - \text{present value of new debt} / \text{face value of old debt})$ . 4/ Exchange recovery rate is defined as a ratio between price of new instrument after the exchange at date  $T$  and price of old instrument at some date prior to the exchange  $t \leq T$ , as defined in Asonuma, Niepelt and Ranciere (2020). Sources: Republic of Cyprus

- No use of CACs. The restructured bonds were only domestic bonds issued under Cyprus Law before January 1, 2013 and had no CACs in their terms (the EU CACs Model applies for domestic bonds issued after January 1, 2013). Therefore, no CACs were triggered and no exit consent was used. CACs were included in foreign (European) bonds (EMTN: Euro Medium Term Notes) issued under English Law where CACs are typically included.
- Participation rate. The debt exchange achieved 100 percent participation of eligible bonds, due primarily to the authorities' early and effective engagement.

The exchange resulted in a significant difference on SZ recovery rates (haircuts), defined in footnote 15, among bond holders: creditors holding short-term bond holders suffer larger creditor losses (Figure 3 i-ii).

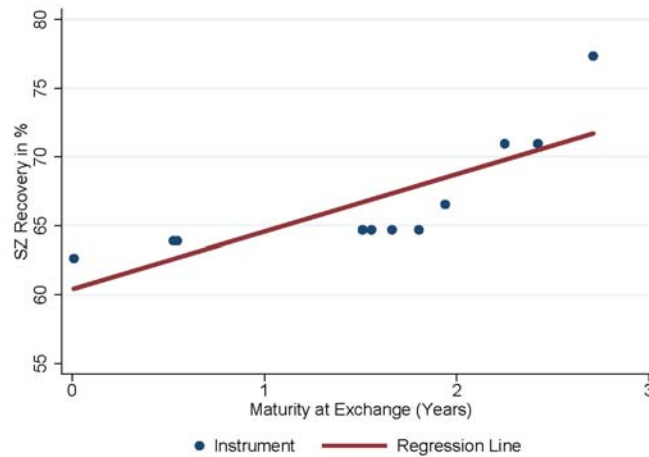


FIGURE 3A. SZ NPV Recovery Rates (%)

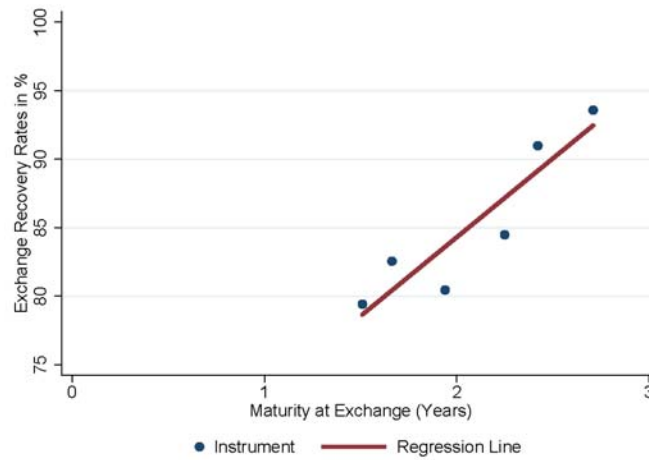


FIGURE 3B. Exchange Recovery Rates (%)

Sources: Asonuma, Niepelt and Ranciere (2020)

In particular, creditors holding old bonds with remaining maturity of 2.7 years received SZ recovery rates of 77 percent, while those holding old bonds with remaining maturity of 0 years SZ recovery rates of 63 percent (panel i). When we measure “exchange recovery rates” based on the capital loss concept, we see an identical pattern: short-term bond

holders suffer larger capital losses (panel ii).<sup>17</sup> This is consistent with an observed stylized fact for 43 domestic and external debt restructurings in 1999–2019 (Asonuma et al. 2020).<sup>18</sup>

As explained above, factors such as the well-defined debt restructuring perimeter, effective and transparent engagement strategy and restructuring terms (i.e., maturity extension (by 6.3 years), but no face value reduction and no change in coupon rates) contributed to the quick and smooth debt renegotiations (i.e., duration of less than 1 month).

### *Outcome*

The debt restructuring with domestic bond holders provided adequate liquidity relief in NPV terms. The remaining debt was scheduled to be repaid at maturity (6–10 years). Debt service due was spread out over 2014–23, with large principal payments postponed by 6 years on average (Figure 4). Most importantly, debt service of €700 million due in July 2013 was postponed to July 2019, reducing the size of program financing. Also, the debt service relief of €1 billion over 2013–16 contributed to Cyprus program financing (IMF 2013a).

Upon the launch of the restructuring proposal, S&P downgraded Cyprus to SD (selective default) on June 28, 2013. Immediately after, S&P improved its credit rating to CCC+ following the completion of the exchange on July 3, 2013 and moved it to a non-default rating (B-) in November 2013, 4 months after the exchange. Fitch followed S&P's response by improving Cyprus' rating to a non-default rating (B-) in April 2014, 9 months after the exchange, while Moody's response was delayed to 18 months after the exchange, returning Cyprus' rating to a non-defaulting rating (B3) in November 2014.

Cyprus regained access to the international capital market fairly

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17. Asonuma et al., (2020) define exchange recovery rate as the price of the new instrument after the exchange at date T over the price of the old instrument at some date prior to the exchange,  $t \leq T$ .

18. Cypriot banks suffered capital losses at the time of the exchange due to low bond prices because of domestic banks' anticipation of a high likelihood of default in the near future. However, capital losses became smaller as bond prices recovered when domestic banks started anticipating a lower likelihood of default in the near future. It should further be noted that the extent of banks' capital losses (or gains) clearly depends on the size of the individual bank's haircut, the terms of the new bonds, and the maturity of holdings of old bonds.

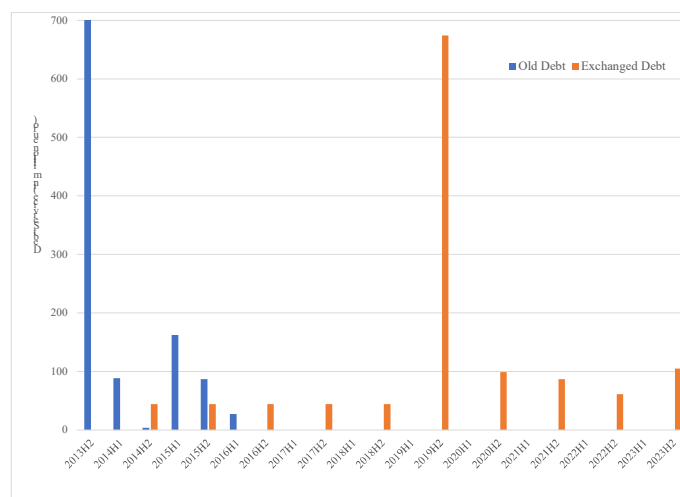


FIGURE 4. Cyprus Domestic Debt Restructuring, 2013–23:  
Debt Service (in millions of euro)

Sources: Authors' calculations .

quickly, within 9 months since the completion of exchange, by issuing international bonds (under English law) of €100 million, with maturity of 6 years and fixed coupon rate of 6.5 percent.<sup>19</sup> Immediately after, in June 2014, Cyprus issued new international bonds (under English law) of €750 million, with maturity of 5 years and fixed coupon rate of 4.75 percent and contracted a syndicated loan. Terms on the second bonds are relatively reasonable and similar to those issued before the debt restructuring. The quick re-access to the international capital market is largely attributed to the well-specified restructuring perimeter (domestic debt), the faster and stronger economic recovery than initially predicted, prudent fiscal policies and restored debt sustainability.

### *IMF Engagement*

The arrangement with the IMF also played an important catalytic role

19. Re-access to the international capital market is defined as the first bond issuance or a syndicated bond contract after a debt settlement.



in the implementation of the programs and agreed policies, including the debt restructuring and financial stability policies. In particular, the IMF approved a three-year SDR 891 million (about 1 billion, or US\$1.33 billion; 563 percent of the country's quota) arrangement under the Extended Fund Facility (EFF) on May 13, 2013 in support of the authorities economic adjustment program. The approval allowed for the immediate disbursement of SDR 74.25 million (about 86 million, or US\$110.7 million). The EFF arrangement was part of a combined financing package with the European Stability Mechanism (ESM) amounting to 10 billion. The EFF aimed to place the banking system on a sustainable footing to restore financial intermediation and support economic activity. The IMF supported program also entailed a well-paced fiscal adjustment that sought to balance short-run cyclical concerns and long-run sustainability objectives, while protecting vulnerable groups.

IMF (2013a, 2013b) explain that the authorities' program built on two key objectives: (i) restoring financial stability and (ii) achieving sustainable public finances. On the first objective, the authorities' program included resolution of the two financially distressed banks, finishing the financial sector recapitalization process, and enhancement of the financial sector supervision and regulation. On the second objective, the authorities' program envisaged fiscal adjustment to balance both short-term financing concerns and long-term debt sustainability considerations.

Cyprus' financing needs during the program period of 2013-16 were envisaged to be covered mainly through official sources (e.g., IMF and ESM). At the time of the IMF-program approval in May 2013, Cyprus was estimated to regain market access to the international capital markets at reasonable terms over the long run, after completion of the adjustment program. However, market access was restored much quicker than originally anticipated (in June 2014).

#### **IV. Financial Stability Policies**

This section discusses the vulnerabilities of the Cypriot banking sector and their effects on credit growth and economic activity, the main link between financial conditions and the real economy. In particular, when the health of the financial sector (especially banks) deteriorates, not only recapitalization needs (i.e., fiscal costs for the government) are created but also economic activity worsens, with adverse implications

for incomes, fiscal performance (reduced taxes and higher welfare benefits), and non-performing loans. All these implications are ingredients for sovereign debt distress and sovereign debt restructurings, including domestic debt restructurings. The Cyprus episode is a prominent case where weaknesses in the banking sector negatively affect the real economy, and ultimately the fiscal accounts and debt sustainability.

Traditionally, Cyprus ran a closed and tightly controlled financial system, with its banks being conservative, inward-looking. However, prior to joining the EU on May 1, 2004, the authorities fully liberalized the interest rate and lifted borrowing restrictions without, however, having developed an adequate financial regulation and supervision system, including a sufficient level of macro-financial oversight on asset prices. Then, upon joining the EU, bank regulation and supervision were aligned with EU Directives, which provided a high degree of harmonization of bank regulation and supervision in the EU. In this backdrop, domestic deposits started growing rapidly in mid-2005, fueling a credit and housing boom (Clerides, 2014). In early 2006, the rate of credit increase started accelerating further, peaking in the fourth quarter of 2007, when housing/mortgage lending grew at an annual rate of 44.5 percent. Also, nonresidents were attracted by the low corporate tax rate and relatively high deposit rate, and increased the amount of their deposits in the Cypriot banks, amounting to 37 percent of total deposits when the rescue package was discussed. While the annual credit growth rate temporarily declined to around 5 percent right after the global financial crisis, the credit boom resumed in 2011, supported by expansionary fiscal policies.

Against this backdrop, the bank asset quality continued to deteriorate, as the Cypriot domestic credit was gradually shifted from industrial sector to personal loans, in particular housing loans. Nonperforming loans started being on the rise, reaching close to 10 percent of the total bank-lending portfolio at end-2011. Further, banks in Cyprus were heavily exposed to Greece's economy, with banks' holdings of Greek loans and Greek government bonds amounting to about 130 percent and 40 percent of Cyprus's GDP, respectively, at end-June 2011 (Laeven and Valencia, 2018). In view of these exposures, the Greek Private Sector Involvement in March 2012 eroded the confidence in the Cypriot banking system, triggering the burst of the asset bubble.

While the Central Bank of Cyprus (having obtained the

non-objection of the Governing Council of the ECB) had provided emergency liquidity for some time to the two largest banks in the country, the Bank of Cyprus and the Cyprus Popular Bank (CPB), almost exclusively to the CPB and only to a very limited extent to the BOC, eventually these banks were both found insolvent in March 2013. A growing public concern led to steady deposit outflows from these banks, with the Bank of Cyprus and the CPB losing their deposits by 10 and 40 percent, respectively, during August 2011 to March 2013 (IMF, 2013).

Under these circumstances, the restructuring of the banking sector was undertaken as part of the IMF-ESM rescue package and included a unique bail-in mechanism. The government first proposed that a one-off levy of 6.75 percent be imposed on bank deposits under €100,000, and 9.99 percent for those over €100,000.<sup>20</sup> In return, depositors would receive equity to the banks, along with senior debt and subordinated debt holders. At the same time, capital controls and restrictions on domestic transactions were introduced to stem a bank run. This universal bank levy posed a question on the long-standing security of insured deposits (O'Brien, 2013), and was rejected by the Parliament. After the ECB decided that the Emergency Liquidity Assistance could be maintained only insofar as the Cypriot banks were solvent, a subsequent agreement was reached between the Cypriot government and the troika that involved the bank levy on the uninsured deposits of only the distressed banks. The levy (haircut) on uninsured deposits amounted to 100 percent in the CPB and 47.5 percent in the Bank of Cyprus. Moreover, the CPB was decided in line with the Resolution of Credit and Other Institutions Law of 2013 to transfer its "good" assets (operations in Cyprus) and liabilities (including insured deposits and central bank funding) to the Bank of Cyprus, while the remaining "bad" assets and liabilities, mainly including the overseas operations that were handled by a Special Administrator as were shutting down, and on liabilities, bonds and uninsured deposits (above €100,000).<sup>21</sup>

Acknowledging that the banks had already been in trouble prior to

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20. An exemption for deposits below €20,000 was included when a revised proposal was submitted to the Cyprus Parliament.

21. In accordance with the law, the Central Bank of Cyprus, as a resolution authority, approved the transfer of CPB's good assets and liabilities to Bank of Cyprus, which also assumed the continuation of CPB's banking activity.

the debt restructuring and bank resolution was inevitable, the Cypriot bank bail-in remains controversial and its unintended consequences have widely been criticized (e.g., Demetriades, 2018). Proponents of bank bail-in argue that it was necessary in order to cut the sovereign-bank negative feedback loop. When the domestic sovereign debt restructuring was undertaken, our estimates suggest that domestic banks' holdings accounted for nearly 40 percent of the total general government debt (based on a methodology developed by Arslanalp and Tsuda (2014)). Under these conditions, a debt restructuring operation would undermine the already-fragile domestic banking sector balance sheet. However, in the case of Cyprus, the domestic restructuring did not lead to another round of a large-scale sovereign debt-bank crisis.

In our assessment, there are two factors at play: First, compared to the case where the banks' recapitalization is financed by the domestic tax base, the transmission of depositor losses to household economic and financial activities was limited due to the high presence of non-residents in the depositor base.<sup>22</sup> Second, the bank levy can be instantly collected to cover the cost of bank recapitalization. This also gives clarity and transparency, while being distinctively different from establishing a stabilization fund to cover the costs of banks from a debt restructuring (ala Jamaica), which inherently raises uncertainty for future burden sharing. Further, it is noteworthy that these two consequences did not come without a cost, because the confidence to the local banking sector was shaken. As a consequence, this could potentially lead to mistrusting the ceilings on safe deposits, hoarding larger amounts of cash outside the banking system, triggering easier bank runs in the future, and increasing the overall risk of financial instability.

## **V. Lessons Learned from Cyprus Debt Restructuring**

While our analysis focuses on the unique domestic debt restructuring of Cyprus, driven predominantly by country-specific fiscal and financial sector characteristics, we can draw important lessons for consideration

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22. This could stir fear of contagion, the cross-border spillover was rather confined to direct exposure, such as Greek government bonds, Greek and Russian bank stocks subordinated debt in some periphery country banks, and Slovenian government bonds (IMF, 2013a), largely because the Cypriot case was viewed as unique and non-systemic.

for future debt restructurings.

- As in other sovereign debt restructurings, the cause of the 2013 Cyprus domestic sovereign debt restructuring is excessive fiscal deficits and the accumulation of high debt levels over a prolonged period, due largely to uncontrolled fiscal expenditures, large recapitalizations of problematic banks and an economic recession. Thus, prevention of debt distressed situations requires both strict adherence to fiscal prudence and adequate financial regulations and supervision avoiding recapitalizations.
- The economic crisis that led to the 2013 Cyprus restructuring involved also a financial crisis, with the weak state of the Cypriot banking sector being burdened by their exposure to overleveraged local property companies, the Greek government-debt crisis, and the reluctance of the government to restructure the problematic financial sector. Thus, to avoid banking and financial crises is imperative that governments identify and address early on weaknesses and vulnerabilities through adequate supervision and resolution processes.
- When the debt distress situation arose and the restructuring became inevitable, the Cypriot authorities engaged in a pre-emptive restructuring strategy and quick debt renegotiations. As a result, there were no delayed renegotiations, with the length of restructuring being less than one month. Thus, if a sovereign faces a severe debt distress situation and the possibility of running into arrears, the government should seek official assistance to help resolve the situation before it leads to higher economic losses, or inefficient losses.<sup>23</sup>
- The Cypriot domestic debt restructuring, whose debt perimeter of €1.0 billion of domestic bonds was determined by the conducted DSA, provided adequate debt relief over the program period. However, its impact on debt sustainability over the long term was rather limited.
- The Cypriot fiscal adjustment package was comprehensive, with the fiscal adjustment being front-loaded with long-term anchors. Also, it was agreed that the domestic debt restructuring needed to be completed by the first review of the IMF supported program. As a

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23. The IMF is precluded from providing financing in cases that the member's debt is unsustainable, unless the member takes steps to restore debt sustainability (which could include a debt restructuring).

result, adequate debt relief was attained, with a postponement of a spike in the debt service to later years. Further, market re-access, with reasonable terms, was attained within 11 months. In addition, resolution of problematic banks—bank restructuring was a structural benchmark of the program (IMF 2013a)—and implementation of strict measures for the banking sector, aside from sovereign debt restructuring, were necessary to restore financial stability. . Thus, an IMF-supported program intending to address fiscal and financial distresses needs to include adequate and front-loaded fiscal consolidation measures, along with the possible provision of a sovereign debt restructuring, that restore debt sustainability and appropriate banking resolution measures that reinstate financial stability, so as sustainable growth is ensured.

## VI. Conclusion

The paper examined the causes, process, and outcome of Cyprus' domestic sovereign debt restructuring and ensuing banking crisis. Our analysis indicates that (i) the authorities' seeking of assistance from the EU and IMF helped in achieving relatively quick debt and banking resolutions, with substantial debt relief and rapid restoration of market access, (ii) the IMF and ESM involvement was beneficial in attaining efficient resolution processes, especially with regards to the debt renegotiations with the banks, and (iii) the impact of instituted resolution measures on banks, although especially harsh for depositors and individual banks, has been positive in terms of enhancing efficiency and competitiveness of the banking sector and restoring financial stability.

## References

- Acharya, V.; Drechsler, I.; and Schnabl, P. 2014. A pyrrhic victory? Bank bailouts and sovereign credit risk. *The Journal of Finance*, 69(6): 2689–2739.
- Arslanalp, S. and Tsuda, T. 2014. Tracking global demand for advanced economy sovereign debt. *IMF Economic Review*, 62(3): 430–464.
- Asonuma, T.; Chamon, M.; Erce, A.; and Sasahara, A. 2021. Costs of sovereign defaults: Restructuring strategies and financial intermediation. LUISS School of European Political Economy working paper 10/2021.
- Asonuma, T. and Joo, H. 2020. Sovereign debt restructurings: Delays in

- renegotiations and risk averse creditors. *Journal of the European Economic Association*, 18(5): 2394–2440.
- Asonuma, T.; Li, M.X.; Papaioannou, M.G.; Thomas, S.; and Togo, E. 2018. Sovereign debt restructurings in Grenada: Causes, processes, outcomes, and lessons learned. *Journal of Banking and Financial Economics*, 2: 67–105.
- Asonuma, T.; Niepelt, D.; and Ranciere, R. 2020. Sovereign bond prices, haircuts and maturity. Working Paper, IMF.
- Asonuma, T. and Papaioannou, M.G. 2016. Domestic sovereign debt restructurings: Processes, outcomes and challenges. Working Paper, IMF.
- Asonuma, T.; Papaioannou, M.G.; Peraza, G.; Vitola, K.; and Tsuda, T. 2017. Sovereign debt restructurings in Belize: Debt sustainability and financial stability aspects. *Journal of Banking and Financial Economics*, 2: 5–26.
- Asonuma, T.; Papaioannou, M.G.; Togo, E.; and van Selm, B. 2020. Belize's 2016–17 sovereign debt restructuring—third time lucky? *Journal of Banking and Financial Economics*, 2(14): 47–67.
- Asonuma, T. and Trebesch, C. 2016. Sovereign debt restructurings: Preemptive or post-default. *Journal of European Economic Association*, 14(1): 175–214.
- Balceanu, I. and Erce, A. 2018. Linking bank crises and sovereign defaults: Evidence from emerging markets. *IMF Economic Review*, 66(4): 617–664.
- Benjamin, D., and Wright, M.L.J. 2013. Recovery before redemption? A theory of delays in sovereign debt renegotiations. Working paper, Federal Reserve Bank of Chicago and State University of New York Buffalo.
- Brown, S.; Demetriou, D.; and Theodossiou, P. 2018. Banking crisis in Cyprus: Causes, consequences and recent developments. *Multinational Finance Journal*, 22 (1–2): 63–118.
- Clerides, S. 2014. The collapse of the cypriot banking system: A bird's eye view. *Cyprus Economic Policy Review*, 8(2): 3–35.
- Cooper, R. and Nikolov, K. 2018. Government debt and banking fragility: The spreading of strategic uncertainty. *International Economic Review*, 59(4): 1905–1925.
- Cruces, J. and Trebesch, C. 2013. Sovereign defaults: The price of haircuts. *American Economic Journal: Macroeconomics*, 5(3): 85–117.
- Das, U.; Papaioannou, M.G.; Pedras, G.; Ahmed, F.; and Surti, J. 2010. Managing public debt and its financial stability implications. IMF Working Paper No. WP/10/280 Washington, DC.
- Das, U.; Papaioannou, M.; and Trebesch, C. 2012. Sovereign debt restructurings 1950–2010: Literature survey, data, and stylized facts. IMF Working Paper No. 12/203. Washington, DC.
- Demetriades, P. 2018. Failing banks, bail-ins, and central bank independence: Lessons from Cyprus. Vox Article, February 21, 2018.
- Diaz-Cassou, J.; Erce, A.; and Vazquez-Zamora, J. 2008. Recent episodes of sovereign debt restructurings: A case-study approach,” Banco de Espana Occasional Paper No. 0804.

- Erce, A. and Mallucchi, E. 2018. Selective sovereign defaults. Board of Governors of the Federal Reserve System International Finance Discussion Paper No.1239.
- Farhi, E. and Tirole, J. 2018. Deadly embrace: Sovereign and financial balance sheets doom loops. *Review of Economic Studies*, 85(3):1781–1823.
- Finger, H. and Mecagni, M. 2007. Sovereign debt restructuring and debt sustainability—an analysis of recent cross-country experience. IMF Occasional Paper No. 255. Washington, DC.
- Gennaioli, N.; Martin, A.; and Rossi, S. 2014. Sovereign default, domestic banks, and financial institutions. *The Journal of Finance*, 69(2): 819–866.
- Gulati, M., and Buchheit, L. 2013. Walking bank from Cyprus. VOX EU March 20.
- Hur, S.; Sosa-Padilla, C.; and Yom, Z. 2021. Optimal bailouts in banking and sovereign crises. NBER Working Paper No.28412, Cambridge: NBER.
- International Monetary Fund (IMF), 2012. Press release: Statement by IMF managing director Christine Lagarde on Cyprus. Press release, No.12/240, June 27, 2012.
- International Monetary Fund, 2013a. Cyprus: Request for arrangement under the extended fund facility. IMF Country Report No. 13/125.
- International Monetary Fund, 2013b. Sovereign debt restructuring—recent developments and implications for the fund’s legal and policy framework. IMF Board Paper, Washington, DC.
- International Monetary Fund (IMF), 2013c. IMF reaches staff-level agreement with Cyprus on a €1 billion extended fund facility arrangement. Press Release No.13/103, April 3, 2013.
- International Monetary Fund, 2020. The international architecture for resolving sovereign debt involving private-sector creditors – recent developments, challenges, and reform options. IMF Board paper, Washington, DC.
- Laeven, L. and Valencia, F. 2020. Systemic banking crises database II. *IMF Economic Review*, 68: 307–361.
- O’Brien, M. 2013. Everything you need to know about the Cyprus bank disaster.” *The Atlantic*, March 18, 2013.
- Reinhart, C., and Rogoff, K. 2009. This time is different: Eight centuries of financial folly. Princeton: Princeton University Press.
- Republic of Cyprus Ministry of Finance, 2013a. Exchange of EUR 1,0 bn local Cyprus government bonds. Press release June 27, 2013.
- Republic of Cyprus Ministry of Finance, 2013b. Cyprus government bonds exchange. Press Release, July 1, 2013.
- Republic of Cyprus Ministry of Finance, 2014. EUR 750 million 4.750% new 5-year benchmark due 25 June 2019, Press release, June 18, 2014.
- Sosa-Padilla, C. 2018. Sovereign defaults and banking crises. *Journal of Monetary Economics*, 99: 88–105.
- Sturzenegger, F., and Zettelmeyer, J. 2007. Debt defaults and lessons from a decade of crises. MIT Press.



- Sturzenegger, F., and Zettelmeyer, J. 2008. Haircuts: Estimating investor losses in sovereign debt restructuring, 1998–2005. *Journal of International Money and Finance*, 27(5): 780–805.
- Zettelmeyer, J.; Trebesch, C.; and Gulati, M. 2013. The Greek debt restructuring: An autopsy, *Economic Policy*, 28(75): 513–563.