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Resumen

La base de datos trimestrales Quarterly External Debt Statistics del Banco Mundial para diferentes economías muestra que la deuda externa de las empresas no bancarias chilenas ha aumentado constantemente desde 2012, alcanzando el 45% del PIB en 2017, alcanzando un nivel similar al de economías desarrolladas y situándose por encima del promedio de otras economías emergentes. Una diferencia entre Chile y otras economías emergentes es la importancia de la deuda asociada a Inversión Extranjera Directa (IED). En Chile, 46% de la deuda externa corresponde a IED mientras que el 34% corresponde a bonos externos. La deuda IED se origina entre partes relacionadas, y por este motivo tiende a tener un menor riesgo de renovación en comparación, por ejemplo, al de un préstamo bancario. Por otro lado, usando micro datos, es posible identificar que las firmas con contabilidad en dólares explican dos tercios de los bonos externos. En estas firmas la deuda en dólares no genera un descalce cambiario. El resto de los bonos externos están en manos de empresas con contabilidad en pesos chilenos, donde se presenta un bajo descalce cambiario individual. Desde 2015, la deuda externa se ha mantenido estable en alrededor de US $ 120 mil millones y la variación observada en la razón de deuda externa sobre PIB se explica principalmente por movimientos del tipo de cambio.

Abstract

The World Bank's Quarterly External Debt Statistics (QEDS) database for different economies shows that the external debt of Chilean non-banking companies has increased steadily since 2012, reaching 45% of GDP in 2017, matching that of developed economies and placing itself above the average of other emerging economies. One difference between Chile and others EME is the importance of Foreign Direct Investment (FDI)-related loans. In Chile, 46% of the external debt is represented by FDI related debt while 34% corresponds to external bonds. FDI related debt originates between related parties and, by this feature, tends to be characterized by a lower risk of renewal different from that of, for example, a bank loan. On the other hand, using micro data, it is possible to identify that firms with dollar accounting hold two-thirds of external bonds. In these firms there is no currency mismatch by dollar denominated liabilities. The rest of the external bonds are held by firms with Chilean peso accounting and with low individual currency mismatch. Since 2015, external debt has been stable at around US$120 billion and the variation in debt to GDP ratio is mainly explained by movements in the exchange rate.

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1. Introduction

In the World Bank's Quarterly External Debt Statistics (QEDS) database, Chile's levels of external debt (45% of GDP in 2017) are similar to those of developed economies (DE) such as Canada, Norway, Spain, Germany and Australia; and above those of emerging-market economies (EME, 18% on a simple average)[1] . Considering these figures, it is of interest to analyze Chile's evolution and its level of external debt achieved in relation to other countries, the evolution in the composition of debt and the potential exchange rate risk of companies.

This document has two objectives: to compare Chile's corporate external debt in an international context using aggregate data, and to analyze the evolution and level of external debt, as well as the exchange rate risk, using micro data. Therefore, the contribution of this paper is to help better understand Chile's position in the world in terms of foreign debt and characterize how such debt has evolved at the firm level.

Among the main results at the international level, the significant increase in Chile's external debt since 2012 stands out, mainly explained by Foreign Direct Investment (FDI) and external bonds. The debt associated with FDI is accounted for mainly by loans from foreign companies to their related companies in Chile. In the case of external bonds, Chile exhibits a level similar to that of developed countries reflecting the development of its financial market and the low cost of private funding in Chile between 2009 and 2015.

Using microdata it is possible to classify the information by type of debt and type of company, in fact between 2012 and 2018 the external debt grew from 26 to 41% in terms of GDP and the micro data allows us to analyze this growth at the firm level. Furthermore, since 2015 external debt has remained stable at US$ 120 billion, of which approximately 46% corresponds to FDI-related loans and the rest to external bonds. Almost all external bonds are concentrated in firms that report their financial information to Financial Markets Commission (FMC). Two thirds of those are in firms with dollar functional currency with which there is no currency mismatch with respect to the dollar. The rest of the external bonds are held by firms with peso functional currency with a limited currency risk. FDI debt is concentrated in non-reporting companies, it originates between related parties and normally has a lower risk of renewal than its banking counterpart.

The paper follows in section 2 with a description of the data used for the international comparison and Chile's analysis. Section 3 shows an aggregate country comparison of external debt, explaining

[1] The information available for Chile is consistent with that published by the Balance of Payments Department of the Central Bank of Chile.

the trends of Chile and their difference with other economies. Section 4 analyzes the evolution of the Chilean corporate sector's external debt, studying the sources of this debt and currency exposure analysis. Finally, Section 5 concludes and presents the main results.

2. Data

In order to characterize the external debt of non-banking firms we take two approaches. First, in an international comparison, we put together a yearly panel database between 2005 and 2017, using the Quarterly External Debt Statistics (QEDS) database provided by the World Bank and the International Monetary Fund (IMF). This database has comprehensive, internationally comparable, and reliable information of external debt components[2]. For our purpose, we use the institutional sector identification for the construction of the gross external debt position of non-banking firms. For comparisons, the countries are classified into developed, developing (emerging) and economies comparable to Chile using the BIS classification.

Second, in the micro level analysis, we calculate the external debt from the Central Bank of Chile's internal records using information at the individual-firm level from 2009 to 2018, with quarterly frequency. The local components of debt are also included in aggregate form, information provided by the FMC. The objective of including local debt is to measure external debt within the total financing of firms. It is important to note that the debt calculated with micro data is consistent with the public aggregate data (Roje & Vásquez, 2014) [3].

The use of information at company level allows to characterize them according to their potential access to different sources of financing, both domestic and external. Companies are divided into three categories: (i) FMC reporting firms, (ii) Non-reporting firms with external debt and (iii) Firms with domestic bank debt[4]. The first are companies that have access to the local bond market, and thus are mandated to submit their financial statements to the FMC. As we observe below, this group also concentrates the stock of external bonds. The second category includes firms that are not mandated to publish their financial information, but maintain external debt, principally with FDI. Finally, the third group corresponds to firms that have only banking debt as their source of financing. In general,

[2] As an example, the information available for Chile is consistent with that published by the Balance of Payments Department of the Central Bank of Chile. Similar results are obtained when using the Institute of International Finance (IIF) database. However, in this case information about FDI and domestic debt in foreign currency is more difficult to compare with public information.

[3] For a detailed characterization of the debt of Chilean companies and micro-level debt calculation methodology, see Fernández et al. (2017).

[4] For more information about firm's classification, see FSR Second Half 2019.

this group explains the level and variations of total domestic banking debt. However, these companies are beyond the scope of this study.

This classification is relevant in order to identify the idiosyncratic characteristics of firms. For example, FMC companies used to reflect the activities of Chilean parent companies operating in the country and abroad. In this group of companies, using the financial statements we can identify the functional currency and the currency risk. The non-reporting firms with external debt correspond mainly to those that receive FDI debt from their foreign related companies. The domestic firms are those that cannot access other sources of financing by idiosyncratic decision or for credit constraints issues.

3. International comparison: aggregate data

In an international comparison, Chile presents a level of external debt over GDP above the simple average of the EME group, second only to Hungary (**Figure 1)**. Chile's external debt is 45% of GDP as of 2017, a figure similar to that of Developed Economies such as Canada (49%), Norway (46%), Spain (40%), Germany (39%) and Australia (36%)[5]. By separating by groups of economies and by type of debt, it is easy to observe that Chile has a debt mix similar to that of developed countries but with a higher FDI proportion (**Figure 2**). A special case is countries with high external debt, some of which are financial centers. In their composition, DEs have relatively more external bonds in comparison with EMEs. In the case of Chile, FDI explains almost half of total external debt (21%), together with a high level of external bonds (13%) above the level of EMEs, explained by the country's increased access to external financing in recent years.

[5] This calculation does not consider countries with the highest external debt over GDP in the database: Ireland (478%), the Netherlands (356%), United Kingdom (109%) and Belgium (108%). See **Appendix 1** for details.

Figure 1: External debt of non - banking companies by type of debt, 2017 (percent of GDP)

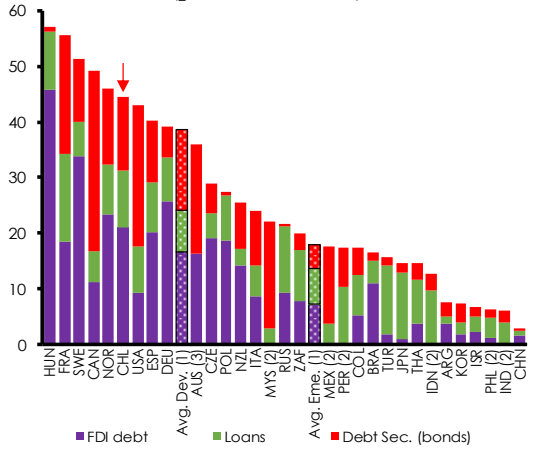
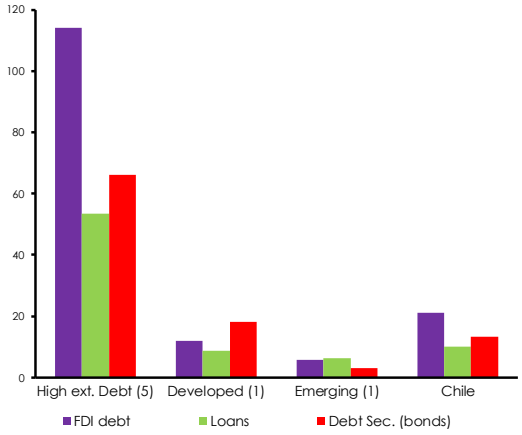


Figure 2 : External debt of non - banking companies by groups of economies and by type of debt, 2017 (percent of GDP) (4)



(1) Simple average for developed and emerging economies. Developed countries include, in the same order as Figure1: France, Sweden, Canada, Norway, USA, Spain, Germany, Australia, New Zealand, Italy and Japan. Emerging countries include other economies with exception of Chile. China is exclude. (2) According to World Bank Malaysia, Mexico, Peru, Indonesia and India not covered FDI in their positions. (3) Australia not separated by external loans. (4) Sum of total GDP for the countries in each sample. (5) High external debt group corresponds to countries with external debt over 100% of GDP (not included in Figure 1). Countries correspond to Belgium, Cyprus, Hong Kong, Iceland, Luxemburg, Malta, Mauritius, Mongolia, Netherlands, Papua New Guinea, Seychelles, Singapore, Switzerland and UK. Source: Quarterly External Debt Statistics (QEDS) database of World Bank.

The historical evolution of the external debt shows the significant increase observed in Chile since 2012 in relation to other groups of countries. **Figure 3** depicts Chile very close to comparable economies (21%) and below developed economies (39%) until 2011, with a 24% of GDP. However, after this year the external debt increase rapidly, reaching a 48% in 2015, even surpassing the average of Developed Economies. Besides, it is remarkable that Chile's evolution was over the average of EMEs between 2005 and 2017.

The growth observed in Chilean external debt since 2012 is mainly explained by FDI (**Figure 4**). An interesting result is that, prior to this year, Chile had lower levels of FDI compared to EMEs[6]. This type of debt is explained by loans between related companies, which are different from traditional sources of financing. Moreover, the peak reached in 2015 is explained by one particular operation. These resources were used in turn in a loan from a Chile-based company to another related company abroad (see the thematic chapter in Financial Stability Report, second half 2019).

On the other hand, external bonds show an upward trend after 2008, even converging to developed-economy levels in 2015 while in the cases of emerging and comparable economies, they remained without major variation with respect to GDP (**Figure 5**). This increase in the issuance of bonds was accompanied by a period of low interest rates, which allowed Chilean companies to access lower-

[6] QEDS database has coverage problems. The following countries do not present FDI debt stock despite reporting flows: Malaysia, Mexico, Peru, Indonesia and India (**Figure 1**). This issue must be considered for the FDI analysis. However, Figures 3, 4, 5 and 6 do not include these countries.

cost funds to finance investments and restructure debt (FSR, first half, 2015). Finally, external loans over GDP appears relatively constant for Chile and always above the average for all groups of countries (**Figure 6**).

Figure 3: External debt of non - banking companies, 2005-2017 (percent of GDP) (1)

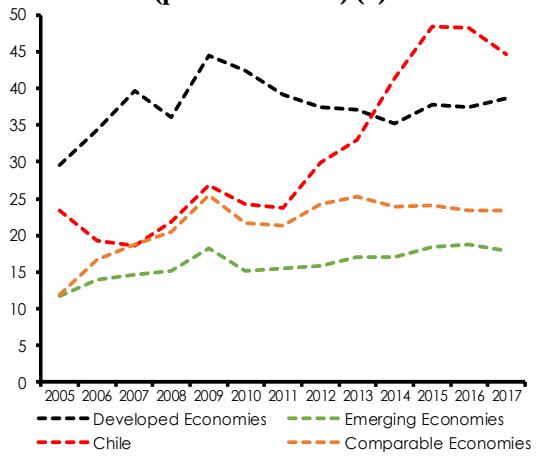


Figure 4: Foreign direct investment debt , 2005-2017 (percent of GDP) (1)

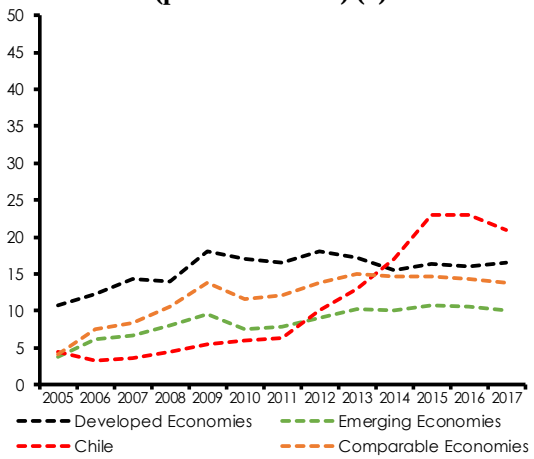


Figure 5: External bonds, 2005-2017 (percent of GDP) (1)

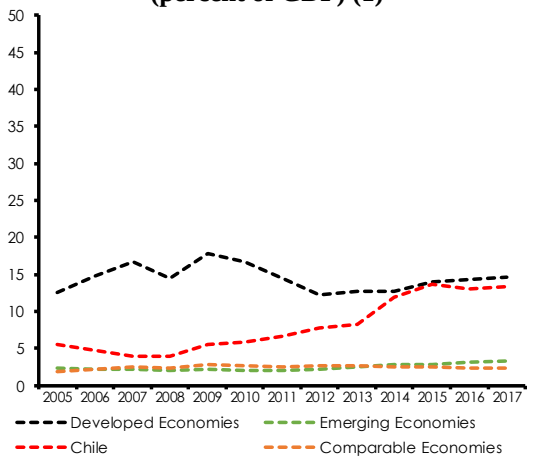
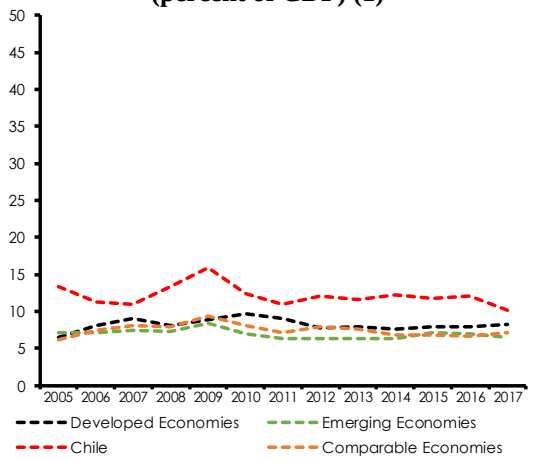


Figure 6: External loans, 2005-2017 (percent of GDP) (1)

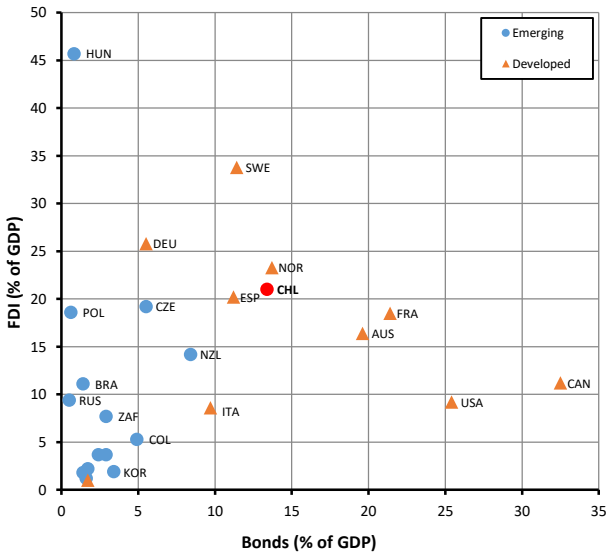


(1) Simple averages for Developed, Emerging and Comparable Economies. Developed Economies include: France, Sweden, Canada, Norway, USA, Spain, Germany, Australia, Italy, Japan and New Zealand. Emerging Economies include other economies with exception of Chile. China is exclude. Comparable Economies with Chile in terms of GDP per capita are: Czech Republic, Hungary, Israel, Korea, Poland, Turkey and South Africa. Source: Quarterly External Debt Statistics (QEDS) database of World Bank.

The results presented above are corroborated in the country-level analysis for 2017. Comparing FDI and external bonds, it is observed that in general, DEs have an important level of external bonds, while developing economies have an important level of FDI. Meanwhile, Chile stands out in both sources of financing (**Figure 7**). Chile exhibits the debt levels of economies such as Norway and Spain. Again, it is worth noting the level of external bonds of Chile in comparison with other

emerging economies, aforementioned. On the other hand, there are countries with higher levels of FDI, such as Hungary and Sweden.

Figure 7: Debt Securities and Foreign Direct Investment, 2017 (percent of GDP) (*)



Source: Quarterly External Debt Statistics (QEDS) database of World Bank.

In summary, in the international context, Chile appears with a level of external debt over GDP similar to that of Developed Economies. This level of debt is mainly explained by the greater participation of FDI and bonds, where the first reflects loans between related parties and the second the greater access to external financing by national companies, in a context of low interest rates between 2009 and 2015.

4. External debt in Chile: micro data

In this section we show the results of the characterization of corporate debt using micro data, which are periodically presented in the FSR. The differences with the aggregate data are mainly explained by valuation discrepancies (Roje & Vásquez, 2014). This analysis also allows us to identify the exchange rate risk of companies.

According to firm level data depicted in **Figure 8**, the total debt of non-banking companies in Chile was 101% of GDP at the fourth quarter of 2018[7]. Historically, local debt (bank and bonds) is the most important source of financing, with an average of 42% of GDP between 2009 and 2018. However, there is significant growth in the FDI and external bonds between 2012 and 2015 (**Figure 9**). The evidence at company level indicates that domestic debt is substituted by external debt in this period, which as mentioned above was characterized by a low cost of borrowing, together with an exchange rate effect. Since 2016, the local component dominates in total debt growth.

Figure 8: Debt of non - banking companies in Chile, 2009-2018 (1) (percent of GDP) (2)

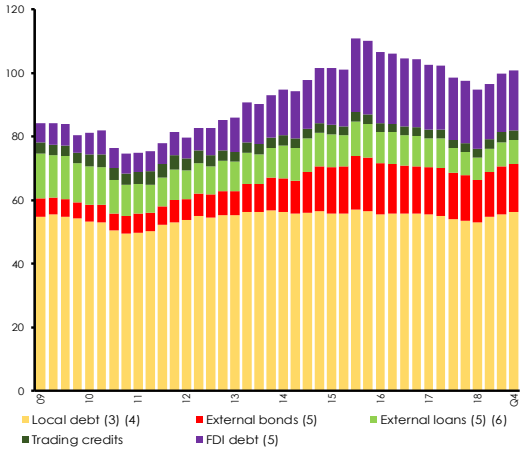
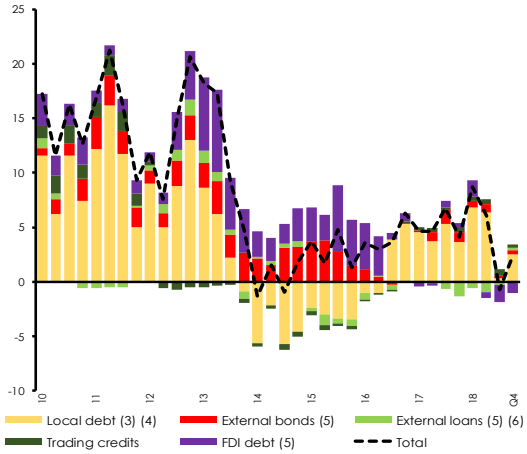


Figure 9: Annual growth debt of non-banking companies, 2010-2018 (percentage of GDP) (1)



(1) Based in firm-level data (2) It is consider the total annual GDP for each quarterly (3) Local debt includes banks and bonds (4) Local bank debt includes contingent and foreign trade loans (5) External debt converted to Chilean pesos according to average exchange rate of last month of each quarterly (6) Includes multilateral institutions. Source: Central Bank of Chile based on FMC.

Until 2012, Chile's external debt was stable at 24% of GDP, mainly composed of external loans (11%) and where the FDI and external bonds maintained similar proportions (**Figure 8**). However, since that year there is a significant increase in the external debt of bonds and FDI, reaching their highest level in 2015 (17% and 23%, respectively, 51% of GDP in terms of total external debt). As mentioned in the aggregate analysis, in 2015 FDI was influenced by one specific operation, which had as its counterpart an external loan with another related company. From then, in nominal terms (**Figure 10**), this debt has been stable at around 120 billion dollars, of which approximately 46% corresponds to FDI related loans, 34% to bonds and 20% to loans on average. The variations between 2014 and 2018 are mainly explain by exchange rate fluctuations (**Figure 11**).

[7] This figure differs from that published in the FSR of the Central Bank of Chile on the same date, because the latter considers aggregate data such as: factoring, leasing, securitized bonds, commercial papers and individual banking loans (excluding student loans). See **Appendix 2** for more details.

Figure 10: External debt of non-banking companies, 2009-2018 (1) (billions of dollars and UF index, respectively)

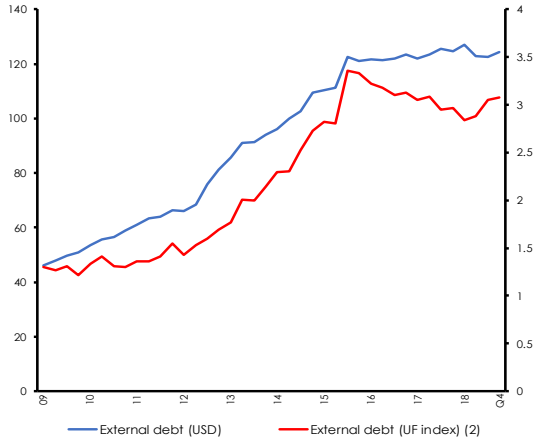
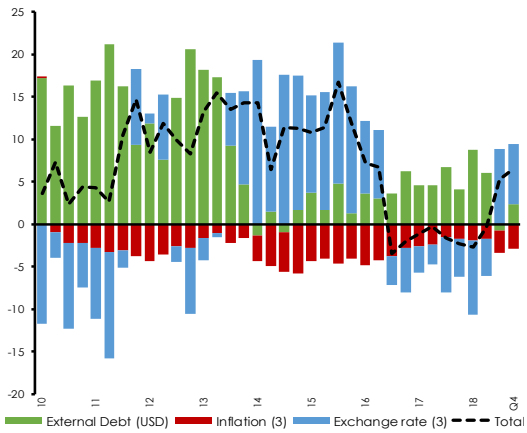


Figure 11: Annual real growth of external debt, 2009-2018 (1)



(1) Based on firm-level data (2) External debt converted to UF (inflation index) with the average exchange rate and UF of the last month of each quarter (3) Average exchange rate and UF (inflation index) of last month of each quarter. Source: Central Bank of Chile based on data form the FMC.

a. Characterization based on public financial information

We can classify external debt according to whether or not the companies report their financial statements to the FMC. In the case of reporting firms, according to **Figure 12**, the stock of total external debt of this group is concentrated in external bonds (10% of GDP and 23% of their total debt, on average). For these companies we have public information that allows studying the external debt in relation to financial indicators such as assets liabilities and equity from their financial statements. In this sense, these firms have better information for analysis[8].

In contrast, the non-reporting firms (**Figure 13**) maintain a higher proportion of FDI debt (11% of GDP and 55% of their total debt, on average). In this group there is no information available to monitor companies and it is only possible to identify the economic sectors in which the debt is concentrated (i.e. mining and financial services, both representing 55% of total FDI of this group approximately)[9] and which kind of FDI debt relationship they have. In the case of Chile, the evolution of FDI credit is normally associated with specific cases that reflect investment or financing decisions by an overseas parent company for its subsidiaries in Chile. At this point it is important to mention

[8] At the firm level, for a large sample of external bond issuers between 2012 and 2014, the resources obtained from the increased bond issues were mainly used for liability refinancing, in a context of low external financing costs, and new investments. In the recent period, corporate bond maturities are concentrated in the medium term, which is consistent with the liability refinancing policy documented in past FSRs (FSR, second half 2019).
[9] More details of FDI by economic sector in **Appendix 3**.

that FDI could be riskier if associated with a local firm that owns a nonresident company that receives investment from that company. In Chile, this type of debt is almost non-existent[10].

Comparing the debt profile of reporters and non-reporters, it is possible to observe that the former present more diversified sources of financing (60% on average of total domestic debt). In this sense, the level of local debt is marginal for non-reporting firms that are highly dependent on FDI.

Figure 12: CMF reporting companies debt, 2009-2018 (1) (percent of GDP) (2)

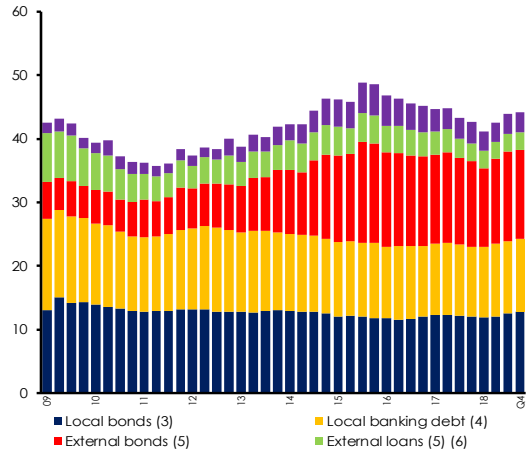
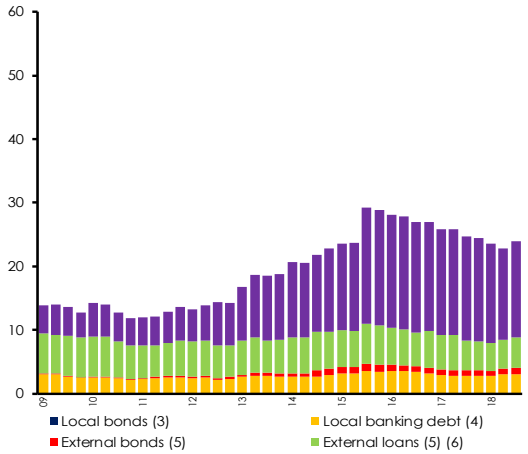


Figure 13: Non-reporting companies debt, 2009-2018 (1) (percent of GDP) (2)



(1) Based in firm-level data (2) It is consider the total annual GDP for each quarterly (3) Local debt includes banks and bonds (4) Local bank debt includes contingent and foreign trade loans (5) External debt converted to Chilean pesos according to average exchange rate of last month of each quarterly (6) Includes multilateral institutions. Source: Central Bank of Chile based on FMC.

b. Functional currency and external debt exposure

It is possible to separate the debt of the reporting firms (**Figure 12**) according to their functional currency[11]. **Figures 14** and **15** show the debt associated with firms with dollar and peso functional currency respectively. A remarkable aspect is that firms that publish and present their financial statements in dollar currency issued a significant share of the external debt (13 % of GDP in 2018), reaching two thirds of the external bonds of reporting companies. Companies with dollar functional

[10] The debt associated with FDI can be classified —in a simplified manner— into three cases according to the relationship between the parties involved. The first type is set when a non-resident firm invests in a locally owned company. The second type is set when a local firm that owns a nonresident company receives investment from that company. Finally, the latter refers to an investment between fellow enterprises—one resident and one nonresident—that do not have an equity link but do have a common direct investor. In Chile, 85% of the FDI corresponds to the first and third cases, which have a lower degree of enforceability than the second (FSR, second half 2019).

[11] According to the International Accounting Standard 21, functional currency "is the currency of the primary economic environment in which the entity operates".

currency normally have their businesses associated with external markets and exports[12] and the currency risk originates in relation to currencies other than the dollar[13].

Figure 14: CMF reporting companies with dollar functional currency, 2009-2018 (1) (% of GDP) (2)

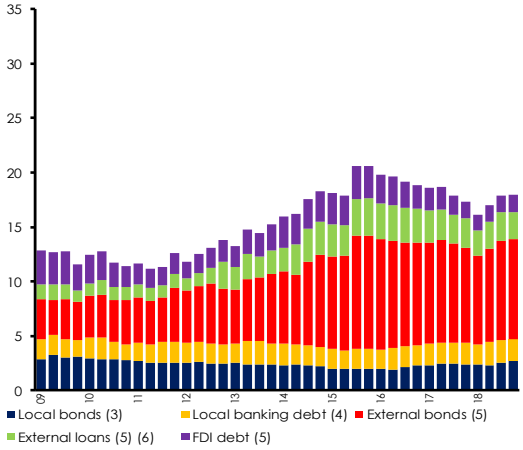
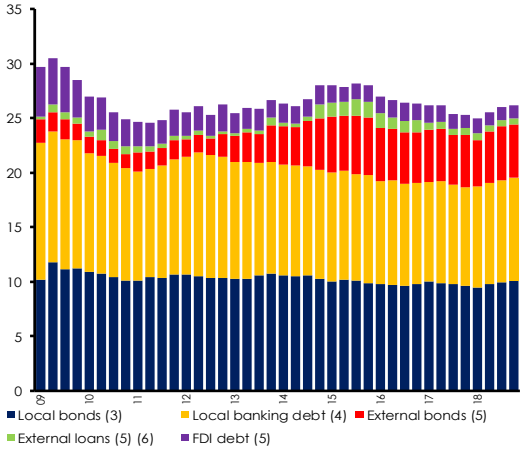


Figure 15: CMF reporting companies with pesos functional currency, 2009-2018 (1) (% of GDP) (2)



(1) Based in firm-level data (2) It is consider the total annual GDP for each quarterly (3) Local debt includes banks and bonds (4) Local bank debt includes contingent and foreign trade loans (5) External debt converted to Chilean pesos according to average exchange rate of last month of each quarterly (6) Includes multilateral institutions. Source: Central Bank of Chile based on FMC.

On the other hand, firms with the peso as their functional currency maintain a high proportion of local debt (20% of GDP), with a low share of external sources (7%) (**Figure 15**). These firms have currency exposure with respect to the dollar. Using an estimate of individual currency mismatch, that considers total foreign debt (i.e. external debt and local debt in foreign currency), we can observe that after 2002 companies actively hedge their obligations in foreign currency, which is reflected in a bounded currency mismatch in relation to total assets (**Appendix 4**).

A last issue to note is that only a fraction of the volatility observed in debt figures will be reflected in the balance sheet of the companies. In **Appendix 6** we show the evolution of the external debt in dollars compared to the external debt indexed to the peso, for firms with dollar accounting. In particular, we noticed that the trends of external debt for these firms are smooth if calculated through their functional currency, implying less volatility in their external debt positions. In contrast, firms with their accounting books in pesos show a stable path if we study the local debt in the peso-indexed

[12] Fernández et al. (2019) show that accounting in dollars —as a foreign currency in the respective country— is not a phenomenon particular to Chile, as it is also observed in a sample of comparable exporting countries such as Canada, Norway, Israel, Australia and Peru.
[13] Using the same methodology of "peso" firms of **Appendix 4**, we observe a bounded currency exposure of dollarized companies.

UF, contrary to dollars. All of the above suggests that the debt in the balance sheets of companies with dollar accounting present less volatility than we see in **Figure 14**.

5. Conclusions

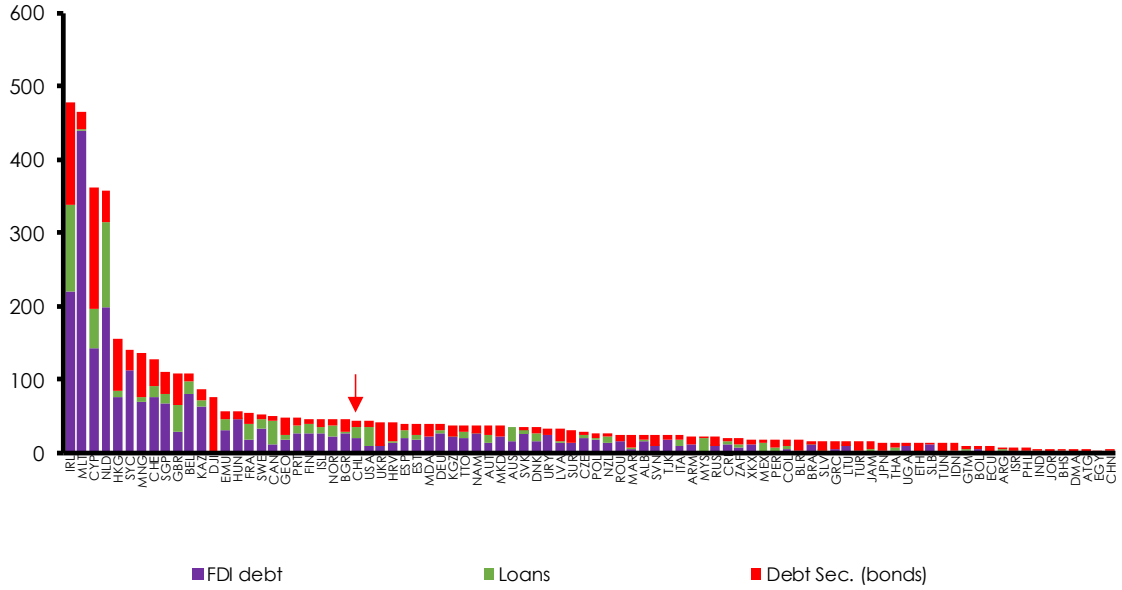
The objective of this article is to characterize the external debt of Chilean non-banking companies. For this we use two sources of information: aggregate country-level information that allows us to make an international comparison, and micro data for Chilean companies that allow us to characterize the information in detail.

In an international comparison, Chile appears with high levels of external debt over GDP, matching that of developed economies but with a higher share of FDI-related debt and a moderately lower level of external bonds.

Using firm micro data for Chilean companies, it is possible to analyze the risk associated with external debt by differentiating three different groups. The first one is the companies that report their financial statements and their functional currency is the dollar. In this group the currency risk associated with external debt is low because this liability is in the same currency as the functional one. The second one includes the companies with public financial statements and the Chilean peso as functional currency. In this case the exchange rate risk can be proxy by the currency mismatch, and this shows that the exposure has been declining since the early 2000s in line with the experience of Chilean firms in a free float exchange rate regime. Finally, the third group are the companies without public financial statements. In this group the main source of debt is related to FDI, these loans being between the firm and a related party abroad. Given this feature, the renewal risk is lower compared to a bank loan or a bond. It is important to note that riskier FDI debt, usually associated with a local firm that owns a nonresident company that receives investment from that company, is almost nonexistent.

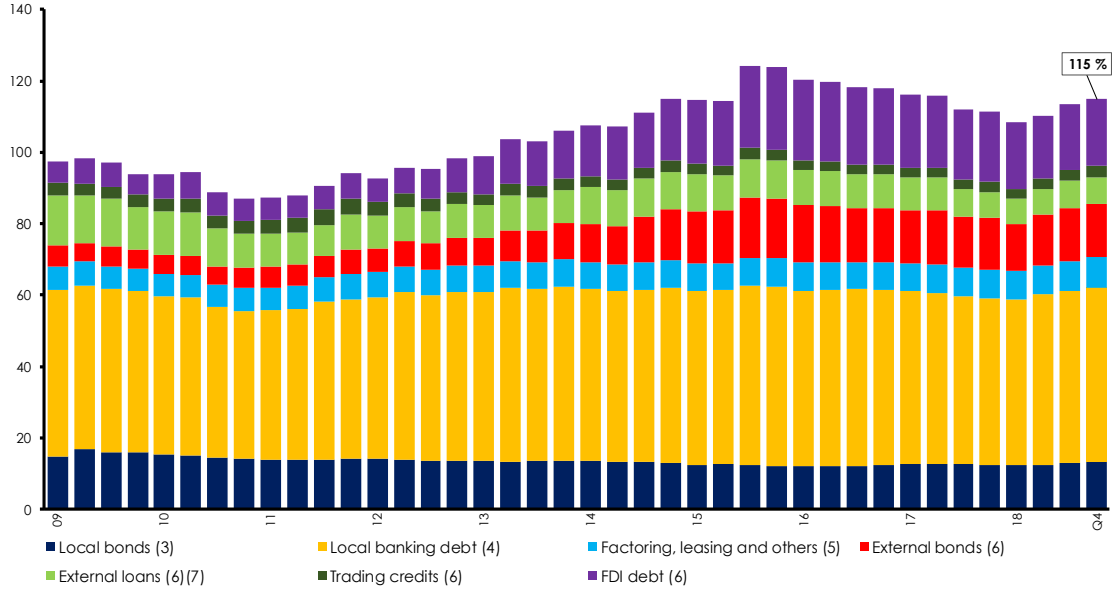
The second issue concerning risk, the level of debt, could be studied by looking at the financial statements. This risk is reported periodically in the FSR for the first two groups cited above. For example in FSR 2019 second semester, a comparison between financial ratios for Chile and other countries its shown, and the companies looks in the same level at similar income countries.

Appendix 1: External debt of non-banking companies, 2017 (1)
(percent of GDP)



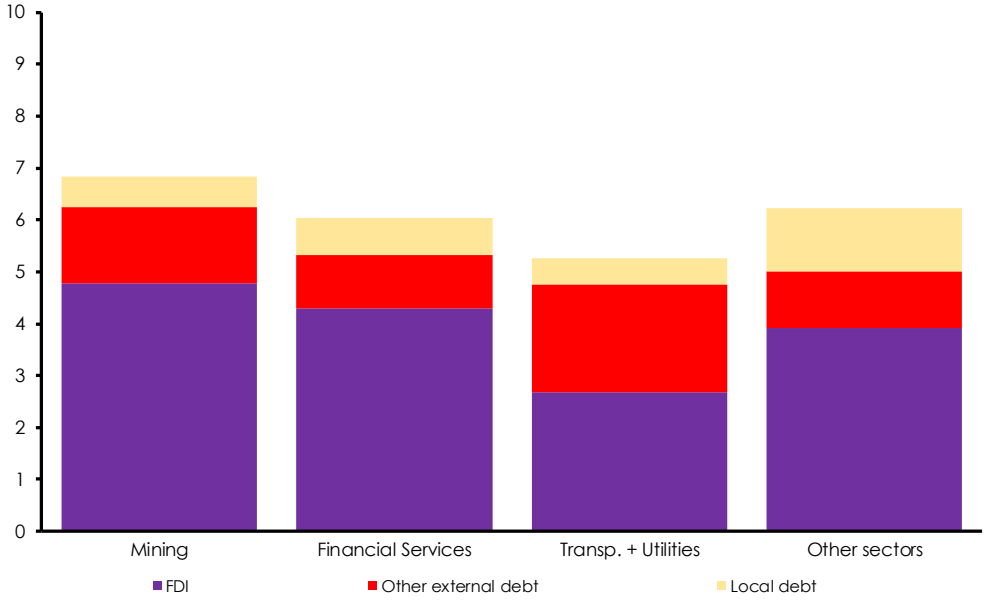
(1) GBR correspond to United Kingdom according to standard ISO code. Source: Quarterly External Debt Statistics (QEDS) database of World Bank.

Appendix 2.A :Total debt of non-banking companies, 2009-2018 (1)
(percent of GDP) (2)



(1) Based on firm level information with exception of factoring, leasing and other, securitized bonds and short-term promissory notes (2) Total GDP is consider for each quarterly (3) Corporate bonds, securitized loans with no banking underlying origin and short-term promissory notes (4) Includes contingent credits, individual credits and others. Does not include university loans (5) Factoring includes banking and no banking institutions (estimated for December 2018). Include debt form insurance companies (6) External debt converted to Chilean pesos according to average exchange rate of last month of each quarterly (7) Includes multilateral institutions. Source: Central Bank of Chile based on FMC data.

Appendix 3: Total debt for CMF non-reporting firms by economic sector, 2018 (1)
(percent of GDP)



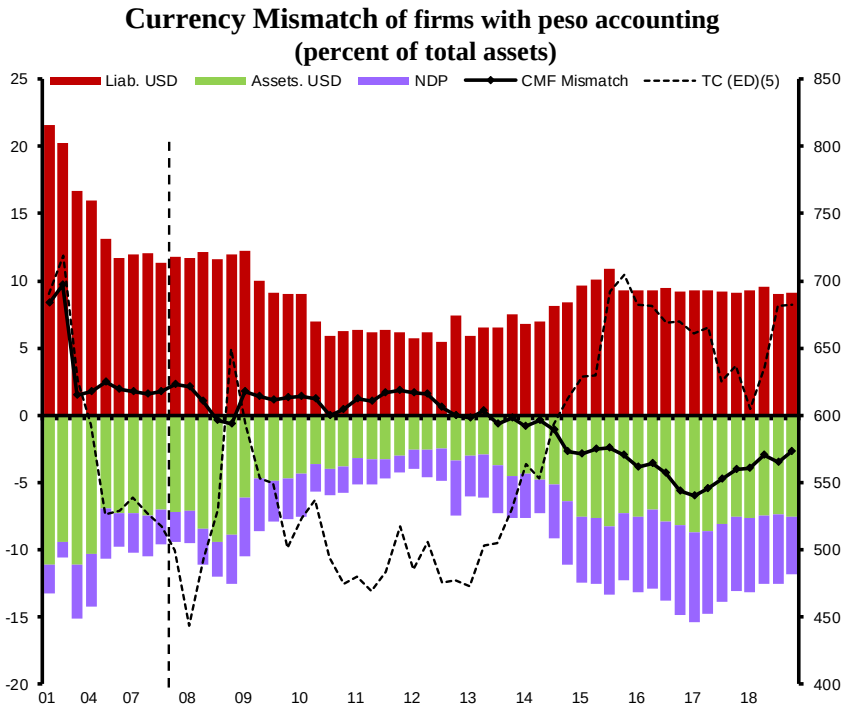
(1) Based in firm-level data. Source: Central Bank of Chile based on FMC data.

Appendix 4: Currency Mismatch of firms with peso accounting.

The foreign (dollar) currency mismatch for individual information firms with pesos' functional currency is calculated:

$$Mismatch_{CLP/USD} = \frac{Liabilities_{USD} - Asset_{USD} - Net\ Derivative\ Position}{\text{Total Assets}}$$

Note that in this case the calculation corresponds to total "foreign" (dollar) exposure and not only the external debt exposure. In particular, the difference is explained by domestic debt in foreign currency (**Appendix 5**). The exposure is bounded since 2002, with an important role of derivatives in the last few years.

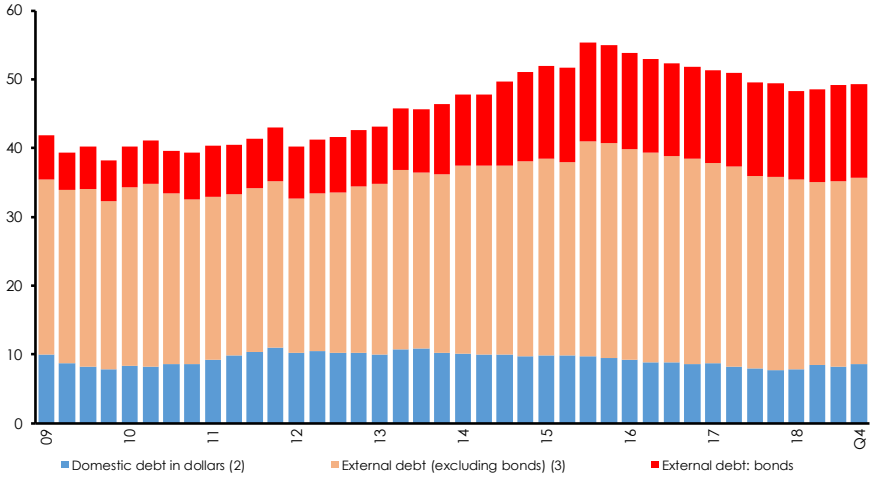


(1) Mismatch is calculate as liabilities in dollars minus assets in dollars, minus net derivative positions, over total assets. (2) Since September 2014, the net derivative position only considers peso/dollar transactions. (3) Annual data until 2006. After that date, quarterly data. (4) The mismatch not consider stated-owned, mining and financial firms. (5) Average exchange rate of last month of each quarter in the secondary axis. Source: Central Bank of Chile based on FMC data.

Appendix 5: Foreign Currency Debt: aggregate and micro data

Foreign currency debt is not equal to external debt due to the existence of local debt in foreign currency. Therefore, a relevant question to address is whether foreign currency debt has a similar size that external debt in Chile. Using a combination of aggregate data to identify the currency of local debt, the followed figure depicts the proportion of domestic debt denominated in foreign currency. In particular, this source has a stable evolution of total debt, with an average of 10% of total debt. In this sense, the foreign debt is principally determine by external sources than domestically. This issue is relevant for potential risk over currency exposures due to the capacity to monitor the corporate sector. In fact, this indicator is monitor frequently (**Appendix 4**). The result shows the relevance of potentials imbalances comes principally from external debt.

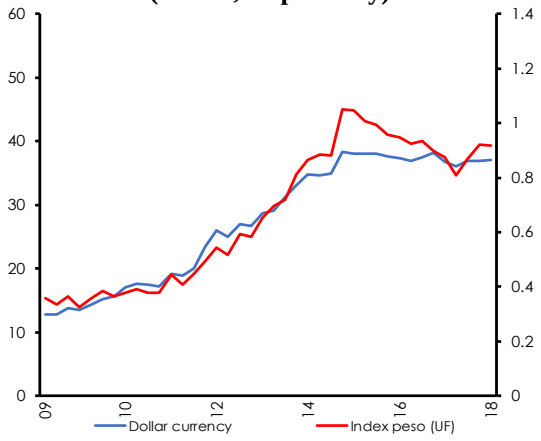
Debt in Foreign Currency, (2009-2018) (1)
(percent of total debt)



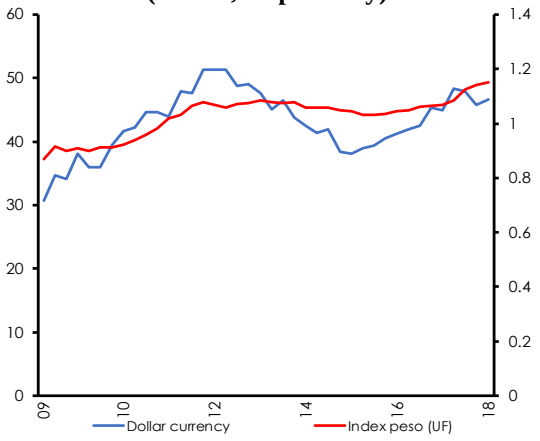
(1) Local banking debt (without contingents) corresponds to aggregate information from FMC. (2) Securitized bonds, promissory notes and non-banking.
Source: Central Bank of Chile based on FMC data.

Appendix 6: Functional currency for CMF firms analysis

External debt for CMF reporting companies with dollar as functional currency (1)
(billons, respectively)



Local debt for CMF reporting companies with peso as functional currency (1)
(billons, respectively)



(1) Based in firm-level data. Source: Central Bank of Chile based on FMC data.

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