

Contents lists available at ScienceDirect

# Journal of International Money and Finance

journal homepage: www.elsevier.com/locate/jimf



# Why do firms default on their foreign currency loans? The case of Hungary



## Dzsamila Vonnák

Institute of Economics, Hungarian Academy of Sciences, Tóth Kálmán utca 4., 1097 Budapest, Hungary

#### ARTICLE INFO

Article history: Available online 5 May 2018

JEL classification:

G21

G32

F34 E44

Keywords: Foreign currency lending Banking Loan performance

#### ABSTRACT

I isolate the effect of the choice of foreign currency on the loan performance of firms borrowing in different currencies in crisis times. I use a novel micro-level dataset from Hungary to decompose the factors contributing to the worse loan performance of foreign currency borrowers compared to local currency debtors. I find that foreign currency denomination can worsen loan performance considerably, while selection also contributes significantly to the default differences. On the one hand, per se less creditworthy firms borrowed in foreign currency and during the crisis the foreign currency shocks further weakened their loan performances. On the other hand, more creditworthy firms that were also well-prepared for the currency risks also borrowed in foreign currency. My results suggest that not the institution of foreign currency lending per se that should be blamed for the bad loan performance of foreign currency borrowers, instead one should consider the characteristics of the borrowers.

© 2018 Elsevier Ltd. All rights reserved.

### 1. Introduction

Excessive credit growth periods constitute potential threats to financial stability. Credit booms followed by recession periods may turn into financial crises. In emerging market countries, due to the interest rate gap between the local and the major currencies, credit boom periods are often accompanied by significant foreign currency indebtedness, which potentially aggravates the crisis. This was the case during the Latin American debt crisis in the 1980s, the Asian crisis in 1997–98 and the 2008 financial crisis in Central and Eastern Europe.

In this paper I isolate the effect of the choice of the foreign currency on loan performance using the example of the 2008 Hungarian episode. The basic identification challenge is that those who are self-selected to these loans might not be exactly the same as other borrowers. My main contribution is that I decompose the default rate of foreign currency borrowers into the effect of the currency and the heterogeneity stemming from the selection. I find that foreign currency denomination can worsen loan performance considerably (by as much as 7 percentage points), while the selection also contributes significantly to the default differences (by 1.6 percentage points at its maximum).

I analyze Hungarian firms during the 2008 financial crisis and the ensuing recession. Hungary entered the crisis with more than half of the total private sector loans denominated in foreign currency. Mainly two currencies – the Euro and the Swiss Franc – were used for foreign currency lending. During the crisis Euro borrowers performed much better than firms

with Swiss Franc loans. In particular, the raise in the non-performing loan ratio of Swiss Franc denominated loans in the corporate sector was more than twice as high as the raise of Hungarian Forint loans. Meanwhile, the loan performance of Euro and Hungarian Forint borrowers have changed similarly. I investigate why there is such a big difference among currency borrower groups.

Loan performance depends on some observable characteristics related to the earlier currency choice of the firms. There are unobserved factors affecting both the firms' currency decisions and their loan performance. I use the currency supply of the related bank as an instrument for the firms' foreign currency indebtedness. The motivation for the use of the instrument is based on the observation that the currency denomination of loans is affected by the supply side. However, currency lending also influences the bank-firm matching process. Therefore, instruments building on the current bank-firm relationships might be correlated to the unobserved factors affecting the denomination preference of firms. Hence, I restrict the sample to firms that had already been with their banks before the foreign currency lending boom occurred.

Overall, I find that foreign currency lending affected the loan performance diversely. The direct effect of the foreign currency especially worsened the loan performance of Swiss Franc borrowers. However, firms with Swiss Franc also had the highest composition effect compared to firms borrowing in other currencies. Namely, the foreign currency exposure afflicted particularly those companies that turned out to be less creditworthy per se during the crisis. Meanwhile, Euro borrowers had better loan performance; these firms did not only face a lower currency shock but were also more creditworthy as well as better prepared for the currency shock.

To my knowledge, this is the first paper which isolates the effect of the chosen foreign currency on loan performance based on micro data. It contributes to the literature on foreign currency lending. This literature mostly focuses on the determinants of the phenomenon (Nagy et al., 2011), meanwhile also pointing out that risk is often involved. Regarding the demand side, unhedged borrowers also take out such loans, typically because of the lower interest rates (Basso et al., 2011; Brown et al., 2011, or Rosenberg and Tirpák, 2009) and in turn run the exchange rate risk (Barajas and Morales, 2003; Brown et al., 2011; Luca and Petrova, 2008). As for the supply side, the literature shows that banks might lend more in foreign currency than would be optimal, for example in competition for market shares (Steiner, 2012), and in the case of incomplete markets (Brown et al., 2014) or when banks would like to match their net open foreign currency positions. The latter may apply when cheap foreign funding is available (either through the market or through the parent bank) as in Bakker and Gulde (2010), Brown and De Haas (2012) and Brown et al. (2014). The risk involved can be large. Yeşin (2013) assessing the systemic risk arising from foreign currency loans in Europe finds that it is significant in the non-euro area. However, the literature mostly fails to quantify the impact of excessive risk. I calculate the effect of the currency denomination on the loan performance and I find that the materialization of the risk can be substantial.

My paper is also related to the literature which analyzes credit cycles and systematic risk. Jordà et al. (2011), Mendoza and Terrones (2012), and Schularick and Taylor (2012) show on aggregate data that episodes of excessive credit growth are good predictors of financial crises. The literature distinguishes demand and supply driven credit expansions. The former follows the change in quality of demand: for example, better net worth as in Bernanke and Gertler (1989) or better collateral as in Kiyotaki and Moore (1997). The latter is caused by some malfunction in the credit supply process: for instance, bank managers with short horizons as in Rajan (1994) or banks' agency frictions as in Diamond and Rajan (2006) or Holmstrom and Tirole (1997). Foreign currency lending is often associated with credit growth periods. For example, Mendoza and Terrones (2008) demonstrate that before the peak of a credit boom there is a raise in capital inflows which thus increases foreign currency lending as shown by Magud et al. (2014). I analyze an experience of a crisis episode following a credit growth period characterized by significant foreign currency lending. I isolate the impact of the foreign currency from the effects of the crisis. My results suggest that the currency mismatch can magnify the crisis that follows considerably.

This paper is also related to the literature assessing the macro-level determinants of loan performance, such as Cifter et al. (2009), Goodhart et al. (2006), Louzis et al. (2012) and Nkusu (2011). Papers in this stream typically analyze how certain macroeconomic factors (such as GDP growth, inflation, unemployment, monetary conditions or the degree of loan concentration in vulnerable sectors) influence the evolution of non-performing loans. There are also papers that consider the degree of foreign currency indebtedness as one of the factors. For example, analyzing the evolution of the non-performing loan ratios of 75 countries, Beck et al. (2013) point out that in countries with a high share of unhedged foreign currency loans the exchange rate depreciation is related to an increase in the non-performing loans ratio. While papers in this literature build on bank or country level data, I use firm level data and analyze the example of a country with a large share of foreign currency loans. My results confirm the findings of Beck et al. (2013) since I also find that overall foreign currency indebtedness affect loan performance significantly. However, my micro-level analysis reveals that the effect is quite heterogeneous.

The remainder of the paper is arranged as follows. In Section 2 I present the economic situation and the data. In Section 3 I describe the empirical strategy. In Section 4 I discuss the results. Section 5 concludes.

#### 2. Background and data

In this section, first, I describe the economic situation. In particular, I briefly discuss foreign currency lending in general, then I present some related stylized facts in Hungary. Second, I describe the data. I present the sources of the data that I used to compile the dataset, then I describe the sample.

# Download English Version:

# https://daneshyari.com/en/article/7365106

Download Persian Version:

https://daneshyari.com/article/7365106

<u>Daneshyari.com</u>