THE NEXUS OF CORPORATE LIQUIDITY DYNAMICS AND BANK CREDIT USAGE IN THE LONG-TERM: THE CASE OF CASH IN TURKEY

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ABSTRACT

Corporate liquidity dynamics affect the financing of the businesses both in the short and the long-run. A very significant part of the financing in the liabilities comes from bank credits as far as the credit worthiness and/or collateral available assist the businesses in front of the financial institutions. The assessment of corporate liquidity is inarguably viable in the accession to bank credit. The study aims to reveal the effects of corporate liquidity as a whole in the nexus of bank credit usage in the long-term in Turkey. For this aim three main indicators of corporate liquidity (current ratio, quick ratio, and cash and cash equivalents ratio) are used to determine the node with bank credit usage in the time span of 1996 to 2014 in Turkey with the CBRT data of the real sector (nonfinancial) businesses. The study discusses the outlook and the fundamental facts on the issue with the findings which denote that cash and cash equivalents contribute much to the long term bank credit usage as long as the other indicators are stable and remain around the conventional minimum values. Thus, cash holdings over the minimum required levels do not only decrease the short-term liabilities but also provide assistance to access a relatively increasing amount of long-term bank credit in order to finance the assets that will generate additional cash flow.

Keywords: Corporate liquidity, Cash, Bank credits.

INTRODUCTİON

Corporate liquidity and its valuation has enduringly been one of the prominent issues in the business finance literature (Beaver, 1966; Altman, 1968; Altman and Narayan, 1997). Within the characteristics of the corporate liquidity, we may convey that sufficient liquidity (Chen *et al*., 2011) and liquidity ratios are listed in the first order particularly in assessing the credit worthiness of the businesses regardless of scale (Abdou and Pointon, 2011). Yet, the liquidity indicators are generally appreciated as useable for all sectors and industries (Drever and Hutchinson, 2007). When we concentrate in the core of corporate liquidity, we encounter the cash which could not solely assure, by its present appearance, the paying back the liabilities of the future (Al-Attar and Hussain, 2004), however; cash accumulation and holding as a result of net cash flow add up the corporate liquidity and prospers credit worthiness of the businesses. Timely divisions of the accounting and financial reporting practice help here by presenting the fundamental classification of short and long-term liabilities which also covers bank credits usage of the businesses. A very significant part of the financing in the liabilities comes from bank credits as far as the credit worthiness and/or collateral available assist the businesses in front of the banks or financial institutions. The assessment of corporate liquidity is viable in the accession to bank credit. Banks should inarguably consider corporate liquidity in the first order before providing credits for both the short and the long-term. Therefore, corporate liquidity dynamics affect the financing of the businesses both in the short and the long-run. The study hereby aims to reveal the effects of corporate liquidity as a whole in the nexus of bank credit in the long-term in the case of Turkey. On the bank credit usage, corporate liquidity and its dynamics are among the first criteria in determining the credit worthiness with the amount, the cost, and the maturity of the potential credit. In this study, we examine the usage of long-term bank credit of the businesses in terms of corporate liquidity rather than the short-term bank credit. We consequently share the results of our findings in order to enlighten the facts and effects of corporate liquidity beyond long-term bank credit usage of the businesses in the long-run in Turkey. We hereby try to confirm

whether liquidity which has a short-term aspect in nature could bear long-run effects. In order to realize this objective, we evaluate current ratio, quick ratio, and cash and cash equivalents ratio in terms of generally accepted minimum ideal levels and we want to reveal how those indicators affect the bank credit usage in the long-run.

METHODOLOGY

As the methodology in order to disclose the effects of corporate liquidity in the nexus of bank credit uses the long-term data of the real (nonfinancial) sector of Turkey, three main indicators of corporate liquidity (current ratio, quick ratio, and cash and cash equivalents ratio) and long-term vs short-term bank credit data are used to define the node with bank credit usage in the time span of 1996 to 2014. We owe and appreciate for the raw data of the study to the CBRT (the Central Bank of the Republic of Turkey). CBRT declares every year the nonfinancial sectoral data consisting of various types businesses operating in Turkey. For the time span of 19 years and in the series of past three years financial table aggregate totals and ratios, we ruminate on the randomly selected research data which consists of the values of 51 observations of 152,348 firms for which the average of 8,018 firms in each year along the time span. We thereafter consider and discuss the outlook of the findings along with our calculations on the data set in contemporary data processor software and with the related literature alleging the appraised variables with their long-term differences, minimums, maximums, and averages in calculated or conventional (ratios) levels, changes and percentages. The ratios and financial terms of the study are given below in the nomenclature of the study:

Nomenclature of the study

C&CER Cash and Cash Equivalents Ratio (conventional minimum is (0.20) as a percentage of STL)
CR   Current Ratio   (generally accepted interval is (1.5–2.0), conventional minimum is (1.5))
QR   Quick Ratio   (conventional minimum is (1.0))
LTBC   Long Term Bank Credits
STBC   Short Term Bank Credits
STL   Short Term Liabilities
TA   Total Assets
TBC   Total Bank Credits

STL is the famous denominator of the corporate liquidity, we therefore held the data used in the study as a percentage of STL. The study also uses data of CBRT's methodology, which adds short-term instalments of the long-term bank credit into short-term bank credits, for the formulas of corporate bank credit used.

FINDINGS AND DISCUSSIONS

Liquidity indicators (namely; current ratio, quick ratio, cash and cash equivalents ratio, and net working capital level) demonstrate the competence of corporate liquidity on short-term liabilities. Firms will indeed realize their obligations in the circumstances of good financial state or availability and generation of appropriate cash level, liquidity, and easy access to finance (Coyle, 2000a; Coyle, 2000b; Sohn and Kim, 2013) both in the short and the long run. It naturally depends on not exceeding the affordable levels of short-term liabilities. Conversely, unsteady liquidity can be a result of higher dues in the short-term (Min and Lee, 2008). Bank credit, other than being an alternative or choice of financing up to a limit, could be a way out in case of liquidity obstacles. There it may be a risk for smaller firms to become bank dependent especially in the conditions of credit fluctuations (Gorton and He, 2008) or they may encounter extra difficulties to use bank credits in recessive economic circumstances (Chakravarty and Yilmazer, 2009). Financial difficulties may lead smaller firms to more trade credit, as a supplement to bank credit (Psillaki and Eleftheriou, 2015), or instead of bank credit (Chong and Yi, 2011; Gupta et al., 2014) or go on with a solid total debt (D'Mello and Farhat, 2008). In case that the business has liquidity problems or a risky profile, banks may still help by credits if they see these problems as temporary (Behr and Güttler, 2007). But, they will barely be voluntary to revolve such relief for riskier firms. Moreover, relatively minimum liquidity levels can be seen as the firm becomes loftier (Ponikvar *et al.*, 2009). Higher cash holdings of a firm depend on potential opportunities and risks, in opposition less cash would be enough

when they become bigger in scale and have easy access to credit (Opler *et al.*, 1999) with competent collateral reducing the costs of bank credit financing (Booth and Booth, 2006) and/or gain creditability.

Table 1. The facts of the corporate liquidity and the bank credits in Turkey in the long-run

Indicator	Level (%) or % Change	1996 – 2014
TA	% Change	14,671.20
STL	% Change	10,687.37
STL / TA	Average %	41.38
CR conventional (1.50 – 2.0)	Average	1.31
	Min	1.13
	Max	1.45
QR conventional (1.00 +)	Average	0.93
	Min	0.82
	*Max	**1.03**
C&CER conventional (0.20 +)	***Average**	**0.21**
	Min	0.13
	*Max	**0.30**
TBC / STBC	***Average**	**2.03**
TBC / TA	Average %	23.08
LTBC / TA	Average %	11.58
STBC / TA	Average %	11.51
TBC / STL	Average %	55.97
LTBC / STL	Average %	28.38
STBC / STL	Average %	27.60

*Denotes acceptable performances according to the conventionally required minimums.
Source: CBRT, the calculations of the authors, and Acikgoz *et al*. (2016).

Table 1 demonstrates the facts of corporate liquidity and the bank credits through the selected liquidity indicators and short and long-term bank credit usage of the businesses in the long-run in Turkey. Corporate liquidity assessments in the long-run reveal that only C&CER is within the conventionally acceptable limits and in maximums it just shares best performing with QR. According to the leading findings given in Table 1, we endorse that TBC is twice of STBC in the time span. Thus, the businesses have a bank credit usage nature that precisely divides the total at most by two between STBC and LTBC in the long-run in Turkey. The study discusses the essentials with the findings which denote that cash and equivalents give support much to the long term bank credit usage under the circumstances where the other indicators are stable and/or remain below but closely around the conventional or generally accepted minimum values. Henceforward, cash holdings passing over the minimum required levels do not only decrease the STL but also provide assistance to access relatively increasing amount of LTBC in order to finance the assets.
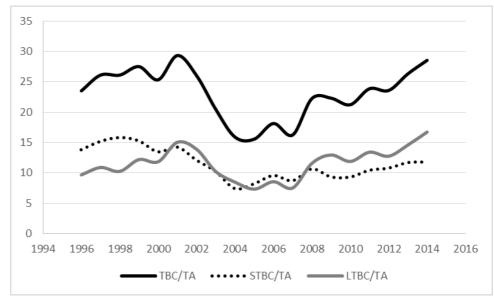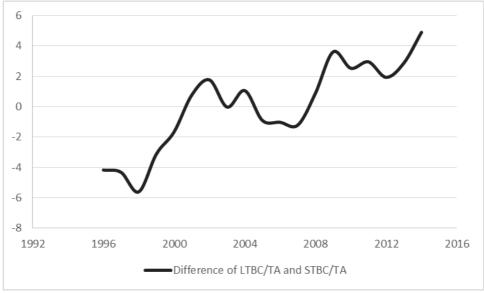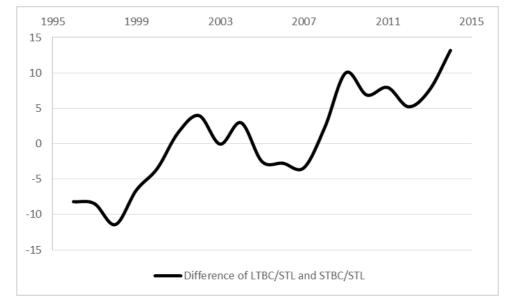

Fig. 1a. TBC, LTBC and STBC on TA as a percentage in the long-term (1996-2014) in Turkey.

Source: CBRT and the calculations of the authors.

Fig. 1b. Difference of LTBC and STBC on TA as a percentage in the long-term (1996-2014) in Turkey.
Source: CBRT and the calculations of the authors.

Figure 1a demonstrates how the change on TBC in the long-term is better reflected by LTBC rather than STBC. The relatively increasing and very resembling trends of LTBC on TA and STL can be seen in Figure 1b and 1c respectively. The assets of the businesses are substantially funded with LTBC and the

effect of bank credits on the STL remains relatively limited (Figure 1a and 1b). Figure 2 represents the differences of TBC and STBC (or LTBC) on both TA and STL. The difference over STL is increasing in the long-run denoting the significance of LTBC.

Fig. 1c. Difference of LTBC and STBC on STL as a percentage in the long-term (1996-2014) in Turkey.
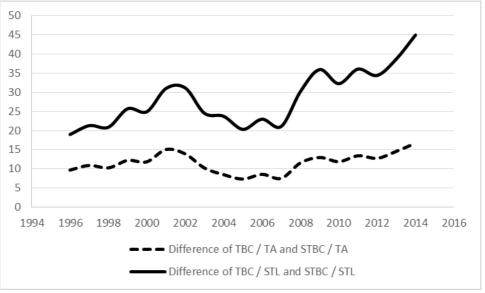Source: CBRT and the calculations of the authors.

Fig. 2. Long-term bank credit differences on TA and STL as percentages in Turkey (1996-2014).
Source: CBRT and the calculations of the authors.

Nonetheless; Figure 3, 4, and 5 exhibit TBC/STBC ratio with CR, QR, and C&CER respectively along with the minimum conventional levels for each of those corporate liquidity indicators in the long-run. While CR and QR approach and remain close to the minimum required values of 1.50 and 1.00 respectively, C&CER is the only indicator which could pass over the minimum conventional level of 0.20 and which is the most effective in providing the potential reason for the increasing difference of TBC and STBC particularly over the STL. Another corporate liquidity indicator to be considered by whether it has a positive or a negative sign, is net working capital. CR, which remains above 1.00 within the whole time span, denotes that the firms have a positive net working capital (Figure 3).
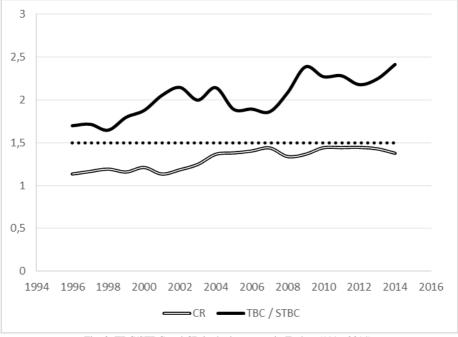

Fig. 3. TBC/STBC and CR in the long-term in Turkey (1996-2014).
Source: CBRT and the calculations of the authors.

Among the bank credits in the long-run, the main activity occurs in the long-term credit and their effects over the short-term credits. The businesses are generally anticipated to have the tendency to expend their short-term bank credit limits and/or revolving credit lines. Thus, long-term bank credit determines any

excess credit in the short-term. Moreover, short-term bank credits accrue the credits of the long-run in time and/or they are the results of the long-term bank credit potential, usage, and consolidation capacity.
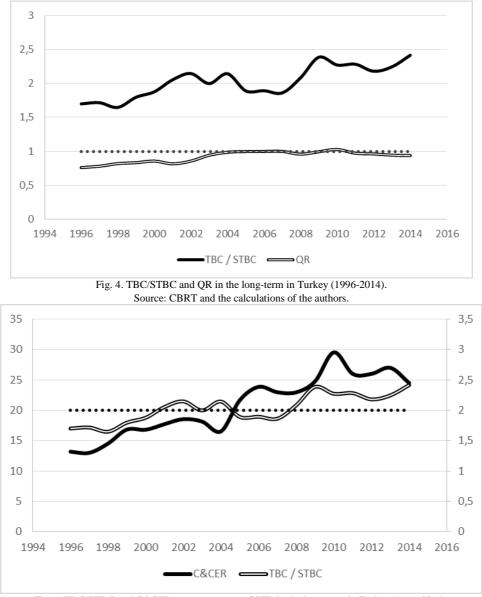

Fig. 4. TBC/STBC and QR in the long-term in Turkey (1996-2014).
Source: CBRT and the calculations of the authors.

Fig. 5. TBC/STBC and C&CER as a percentage of STL in the long-term in Turkey (1996-2014).
Source: CBRT and the calculations of the authors.

In the long-run, cash flow volatility does influence debt ratio of the businesses, regardless of maturity, and may cause a relative decrease especially in the long-term debt (Keefe and Yaghoubi, 2016). Our study is consistent with this close and demonstrates evidence that the better the cash generation is the much long-term bank credit could be. Not only the usage but also the maturity of the long-term bank credit is important for the firms. Yet, the maturity can also be evaluated in amounts to what extend or how many times it exceeds the level of the short-term bank credit usage. The existence of any liquidity inconsistencies might cause supplementary risks in the usage of short-term bank credit. As a contradiction to what is normally expected, however, cash and cash equivalents forming the core of corporate liquidity have significant effects not only on the short but also on the long-term usage of bank credits. The study reveals these effects for a long time span in Turkey. After any decline in short-term bank finance, which is claimed to improve corporate liquidity, the firms can react with an increase in terms of cash accumulation (Kling *et al.*, 2014). Nevertheless, financially constrained firms may assign more transitory cash and accumulate liquidity to cope with forthcoming financial limitations (Chang *et al.*, 2014). At the firm level, local circumstances barely affect and have insignificant descriptive influence on the long-run

corporate liquidity in cash (Pinkowitz *et al.*, 2016) for which lines of credit are claimed as imperfect substitutes (Demiroglu and James, 2011). According to the findings and as a result of corporate liquidity dynamics, we conclude that much more long-term bank credit could relatively be used as long as C&CER is over its conventional minimum level. Whenever the cash and equivalents is above the generally acceptable minimum level long-term bank credit usage could be as much as twice and even more as two and a half of the short-term bank credit (see Figure 5). If the stability could be attained in the indicator which is mainly dynamic, it would therefore be more meaningful in terms of sustainability and thereunto pursuit in corporate liquidity.

CONCLUSIONS

Along with the various effects of cash and equivalents, we emphasize that the businesses should give importance to the level of cash and equivalents in order to better access to the long-term bank credit on the issue of healthy liquidity with the findings of this study. Hence, we expect that the generalization of the businesses which do not have affirmative answers to their short-term bank credit applications will not certainly end up with assenting responses for the long-term needs as well, will gain a new and novel dimension with the study.

Under the circumstances of decreasing trends in short term liabilities and short term bank credits in the long-run, we may consequently confirm that cash and cash equivalents contributes much to the long term bank credit usage as long as the other indicators are stable and remain around the conventional minimum values. Hence, cash holdings over the minimum required levels decrease the short-term liabilities. Thereafter the businesses attain assistance to access relatively increasing amount of long-term bank credit in financing their assets with which they would providentially generate new cash flow.

Consequently, the nexus of long-term bank credits and corporate liquidity will enlighten the significance of cash holdings used not only for potential liquidity requirements in the short-term but also for the accession to the long-term bank credit. Cash is a virtual collateral for the long-term bank credit as well and banks would better continue to assess corporate liquidity on cash for all maturity periods and would better not to give a decreasing significance to cash position of the borrower by time or as the terms are longer.

Hence, we expect that the novelties of the study will be encouraging especially for the business management and for corporate credit departments of the banks as well. We accept that the study has limitations for corporate liquidity on the methodology of ratio analysis, and the generalization and use of local data in the long-term. Yet, we presume that the study will be a beginning for further studies in the future.

ACKNOWLEDGEMENTS

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