Chapter 14

Selecting the Optimum Collateral in Shipping Finance

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ABSTRACT

Banks select convenient loan collateral assets to secure the uninterrupted service of a loan facility. In the adverse case of a borrower in default, collateral assets provide critical last resort coverage for bank loan recovery. Nevertheless, collaterals may provide least protection when they are most needed. Recessionary economic cycle phases, unstable capital markets, liquidity constraints and financial crises amplify abrupt downward collateral value shifts. This, in turn, can result to outstanding loans being exposed to diminishing collateral values, substantially increasing the bank’s asset-liability mismatch. This study proposes an integrated and flexible framework to support a preferential collateral asset selection process for lending banks. Two multi-criteria decision making methods are critically compared and evaluated, in order to gain insight into the identification, evaluation and ranking process of important quantitative and qualitative collateral selection criteria. Bank shipping finance is undertaken as an empirical case study.

INTRODUCTION

Loan collateral assets are critical complementary bank credit instruments, pledged to a bank loan, and intended to support and secure the enduring performance of a credit facility. In technical terms, ‘collateral’ refers to a lender’s right to possess the asset used as security on a borrower’s potential default or bankruptcy and implies that the lender has developed either a security interest (i.e., the bank reserves the option to liquidate the asset) or a collateral assignment (i.e., possessory right on the asset, based on which a lender can take legal action for infringement). In fact, collateral assets decrease the riskiness of a given loan, since the lender acquires a specific claim on the underlying asset without diminishing his/her general claim against the borrower.

As a bank security mechanism, collaterals are considered an important mechanism to decrease credit rationing and credibly signal borrowers’ quality (Sharpe, 1990; Rajan & Winton, 1995; Gup, 2011). In
general, two types of collaterals can be distinguished (Chan & Kanatas, 1985). First, a borrower can pledge as collateral, assets that are used in a project under finance (‘inside collateral’). In case the borrower defaults, the control of the project and the ownership of the depreciated assets shift to the lender, although renegotiations may be possible (Laurin & Majnoni, 2003). Second, the borrower can pledge as collateral, assets that are not used in a project under finance (‘outside collateral’) (Berger & Udell, 1990). As an extreme case, the creditor may take title to and physical possession of the collateral asset over a debt’s maturity span. Furthermore, collateral assets can be distinguished into personal and physical types (Riles, 2011). In the former type, the provider is basically liable with his/her entire fortune. Personal collaterals include suretyship, guarantee, letter of support and collateral promise. In the latter type, the lender receives a specific security interest in certain assets of the borrower/collateral provider. Physical collaterals include real estate prenotation, mortgage, pledge of tangible assets (securities, goods and bills of exchange), security assignment and retention of title.

From a bank perspective, collateral typically refers to secured (asset-based) lending and frequently includes unilateral obligations, secured in the form of property, surety or guarantee. From a firm perspective, the ability to pledge collateral enhances a firm’s debt capacity, provides outside investors the option to liquidate pledged assets against potential losses and enforces a strong disciplinary mechanism on borrowers. Therefore, the asset value in case of liquidation plays a key role in determining a firm’s debt capacity. On the other hand, collateral asset value damages (depreciations), particularly during business cycle downturns, can depress investment and potentially amplify recessionary trends (Gavalas & Syriopoulos, 2014a). Empirical evidence indicates that firms are less inclined to raise debt following an exogenous collateral asset value decline (Gan, 2007), whereas collateral redeployability affects the cost of debt (Benmelech & Bergman, 2009).

This study focuses on the critical issue of collateral assets in bank shipping finance. An integrated and flexible approach is proposed, in order to empirically support a most appropriate collateral asset selection process for loan agreements in shipping finance, on the basis of critical quantitative and qualitative criteria. Indeed, the acquisition of a vessel (ship) by a shipping firm and its bank financing constitute respective complementary aspects of a critical investment/financing decision that is shaped on the basis of a range of multiple criteria (Harwood, 2006). Plausibly, this corporate decision has feedback implications for the loan facility a bank can eventually allocate as well as for the relevant collateral values the bank is to request in order to match undertaken risk exposures. The collateral selection process is based on the identification, evaluation, prioritization ranking and weighting of a set of fundamental quantitative and qualitative criteria, which should ensure the enduring performance of an underlying loan. To this end, a well-established multi-criteria decision making (MCDM) approach is incorporated. Empirical evidence indicates that the choice of the most suitable MCDM approach is important (Figueira et al., 2005). However, the most critical issue remains the initial structuring of the decision problem that demands for the choice of appropriate selection criteria and decision options on the underlying loan collateral assets.

This empirical approach is rendered to be particularly suitable for decisions involving multiple dimensions to be evaluated, paying due attention to participants’ interests and allowing the decision maker to take into account preferences and needs. Hence, another insight of the study refers to the application and evaluation of the robustness of an empirical MCDM framework, in the context of bank ship finance and loan collateral selection. To the authors’ knowledge, the proposed approach is an innovative and pioneer contribution of this study, claiming to be a first attempt to empirically investigate this issue of interest.

The study is structured as follows. Section 2 critically discusses the importance of asset based lending as shaped in past empirical research. Section 3 develops the methodological procedure and analyses