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Small & Medium Enterprise (SME) Financing: Measuring Private Firm Credit Quality

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Overview

The objective of this paper is to provide an overview of well-established tools and practices that relate to SME credit assessment, focusing specifically on the use of credit data and quantitative default risk modeling to enrich the analysis. We pay particular attention to standardized measures of credit risk and their use in the origination and monitoring of SME loans.

In the current financial environment, banks are struggling to adapt their business models to post-crisis regulatory mandates. Their challenges include ring-fencing their commercial and investment banking franchises, tightening their underwriting standards, diminishing their proprietary trading activities, and complying with higher capital requirements. In addition, core lending activities have been in a state of contraction. The regulatory focus on reducing bank leverage has resulted in shrinking bank balance sheets, leaving many would-be SME borrowers looking for alternative financing sources to support their businesses. Much has been made in the press of this reduced supply of bank financing, particularly in the context of a fragile global economic recovery.

At the same time as bank financing has become less accessible, the demand for debt financing by SMEs has increased dramatically over the years. With minimal access to the bond market, these SMEs will require their capital needs to be fulfilled primarily through the loan market. These developments have given rise to an emerging alternative lending industry, as disintermediation becomes increasingly common. However, the prospect of non-regulated institutions providing financing to an important segment of the economy has its own risks—a concern raised by several members of the regulatory community.

The market demand by SMEs for short- and long-term financing, coupled with shrinking bank balance sheets, has led to disintermediation of traditional banking functions by non-banking institutions. For example, some insurers and pension insurance companies have established their own direct lending capabilities, while a rising number of fund managers have developed leveraged loan funds focused on exposure to SMEs. Many European governments have implemented policies to promote disintermediation through loan performance guarantees and below market interest rates. One result of this fundamental shift to non-conventional providers of SME financing is that many institutions must develop an infrastructure to support their emerging exposure to the SME asset class.

Given the disintermediation now taking place, and as expectations by governments and market participants for non-bank financing become increasingly important, institutions are finding that their expertise in fixed income may be limited when applied to SME credit analysis.

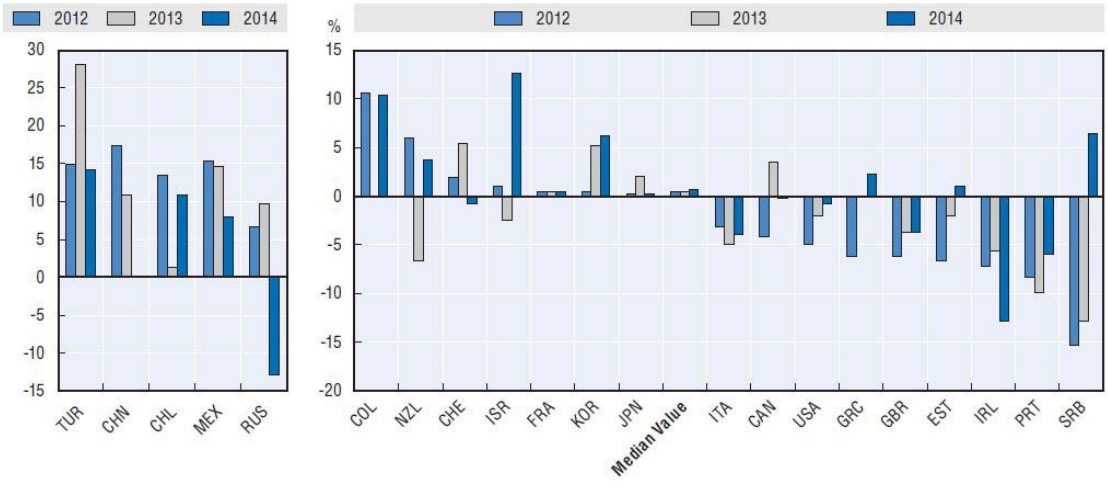
SME Credit Funds

According to OECD, for most OECD countries, economic growth increased between 2012 and 2014, and financial conditions were overall favorable in the majority of participating countries, impacting SME lending favorably.

This growth is illustrated in the following charts[1]:

FIGURE 1. TRENDS IN OUTSTANDING SME LOANS, 2012-14

YEAR-ON-YEAR GROWTH RATE, AS A PERCENTAGE



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1 Table 1.2. Growth of SME business loans, 2007-12

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Table 1.2. Growth of SME business loans, 2007-12

Year-on-year growth rate, as a percentage

Country	2008	2009	2010	2011	2012
Outstanding SME business loans (stocks)					
Belgium	8,3	0	3	8,8	17,4
Canada	-0,1	3,7	-0,9	5	-2,5
Chile	11,3	6,9	8,8	20,4	14,7
Colombia	12,7	-5,2	11,3	17,5	14,5
France	4,8	0,3	5,3	5,3	1,8
Greece	n.a.	n.a.	n.a.	-7,1	-7,9
Hungary	10,3	-7,6	-11,1	0,3	1,9
Ireland	n.a.	n.a.	n.a.	0,9	-6
Israel	0,2	-5,1	7,3	7	0,3
Italy	2,1	1,2	6,6	-1,9	-1,5
Korea	14,4	5	-0,5	3,2	1,4
Mexico	16,9	-1	18,4	18,9	29,7
Norway	25,7	-7,7	4,2	4,7	n.a.
Portugal	9,2	0,9	-1,6	-3,9	-10
Russia	n.a.	3,7	21,9	19,1	16,9
Serbia	40,3	-0,8	5,6	3,1	-2,6
Slovak Republic	32,4	-0,5	0,1	-12	n.a.
Slovenia	15,5	-0,3	11,9	1,8	-4
Sweden	7,2	20,4	-21,4	n.a.	n.a.
Switzerland	5,9	5,3	1,3	3,2	2,8
Thailand	9,5	7,4	7,2	3,1	19,1
Turkey	10,6	-1,6	50,7	29,8	20,5
United Kingdom	11,1	-1,7	-1,7	-6,1	-3,5
United States	3,6	-2,3	-6,2	-6,8	-3,3
New SME business loans (flows)					
Austria	n.a.	n.a.	-6,4	0,7	-1,4
Czech Republic	-0,5	-28,6	-16,6	0,6	-3,7
Denmark	-13,7	-19,2	23,2	-2,6	14,5
Finland	2,6	-16,3	-16,5	-4,8	-0,5
Netherlands	-5	-24,2	5,1	17,6	-3,6
New Zealand	n.a.	n.a.	2,5	-0,9	5,3
Spain	-9,5	-26,3	-20	-17,2	-16,2

Notes: 1. Definitions differ across countries. Refer to table of definitions in each respective country profile in Part II. 2. 21 countries reported outstanding SME loans (stocks), 7 countries reported new SME loans (flows); 3 countries had no SME loan data for 2012.

Source: National scoreboards.

1 OECD (2012) CFE/SME(2012)12/FINAL Financing SMEs and Entrepreneurs 2013: An OECD Scoreboard, Final Report http://search.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=CFE/SME(2012)12/FINAL&docLanguage=En and OECD. (2014), Growth of SME business loans, 2007-12, in *Financing SMEs and Entrepreneurs 2014*, OECD Publishing, Paris. http://dx.doi.org/10.1787/fin_sme_ent-2014-table5-en and OECD. (2016), *Financing SMEs and Entrepreneurs 2016: An OECD Scoreboard*, OECD Publishing, Paris. http://dx.doi.org/10.1787/fin_sme_ent-2016-en

Asset managers are creating SME loan funds in response to the potentially attractive risk/return opportunities presented by this segment, particularly given the low yield environment in more traditional fixed income securities. In this current environment of low interest rates, and with tight spreads in the corporate high-yield bond market, SME debt can present an attractive investment from a relative value perspective. These non-traditional lenders can also negotiate more stringent loan covenants than would otherwise be possible in the more competitive syndicated loan market. Moreover, some governments are encouraging SME loan funds to invest in SME assets, and in some cases are providing guarantees on loan performance or below-market interest rates. Management fees from these alternative credit products are also promising. Taken together, these various market dynamics seem to indicate that more funds would move into this space, particularly those with expertise in specialized credit analysis, such as leveraged loans.

The Need for Standardized Credit Assessment Practices

Non-traditional lenders with interest in investing in this segment have two principal options for sourcing exposure to SMEs:

1. Purchase loan pools directly from a bank. Purchasing bank assets allows the fund to leverage the bank's existing corporate client network and to benefit from the bank's credit assessment and loan structuring expertise. The banks are effectively serving as intermediaries—originating the loan and distributing the assets to investors—while the majority of the credit risk and loan performance rest with the funds themselves, or their investors, to be more precise.

2. Create a credit origination infrastructure in-house. The fund manager establishes the credit skills and risk systems internally, developing the infrastructure to support direct sourcing of the loan assets. This approach is considerably more resource-intensive, as the non-bank lender will need to market its lending capabilities directly to the marketplace and arrange for the servicing of the loan. Consulting companies also serve as brokers to facilitate the interaction between SMEs and non-bank lenders.

Understanding and Assessing SME Credit Quality

A standardized approach to risk measurement allows the fund manager to effectively differentiate the riskier borrowers from those that are less risky, whether the assets are acquired from a bank or sourced independently by the asset manager. Unlike corporate fixed income exposures, there is very little, if any, publicly available information for the analyst to reference in their SME credit assessment. These firms are not rated by the credit rating agencies, and because they don't issue debt in the public markets, there are no debt prices in the bond or credit default swap markets to gauge risk. Banks have historical financial and performance data for the SME market and use this information as inputs to their credit rating models. However, asset managers do not have this in-house credit data. They must resort to a more qualitative assessment based on discussions with the bank and/or company management, as well as a financial ratio analysis based on company financial statements. This approach becomes impractical when there are large numbers of potential borrowers to consider. In the absence of market data, how else might these new SME lenders evaluate the risk they are taking on?

SME Credit Risk Model (Industry Practice)

What can SME fund managers leverage from bank financing practices, in terms of originating and monitoring their exposure to these small firms?

Industry practice in credit risk management for SMEs includes:

- *Standardizing the way financial data is collected and analyzed*
- *Implementing limits management capabilities*
- *Factoring credit risk into pricing and credit policies*
- *Monitoring of the company's financial situation on an ongoing basis*

Each of these risk management activities requires a measure of risk as an input.

To estimate loss (and to price and provision accordingly), it is critical to use a credit risk model that produces firm-level credit quality measures which can be interpreted as an absolute measure of risk, rather than as an ordinal risk measure. An empirically-based model, calibrated to SME default experience, provides a systematic approach to quantifying the level of risk for SME credit. The ability to quantify and to discriminate risk at the point of origination equips the analyst to make informed decisions in extending, structuring, and pricing credit.

A strong risk management process is required by three different parties: the borrowers, the investors and the local regulator. Getting the accreditation is also a challenge considering past collateralized loan obligation (CLO) activities. Being able to demonstrate the rigor and the objectivity of the loan acquisition/ origination process enables the fund manager to convince the market of the new issue quality.

Granular risk measurement becomes even more important for an SME fund comprised of a relatively small number of loans, where one bad credit can significantly impair the performance of the entire fund. If the SME fund purchases a pool of loans, using appropriate probability of default (PD) models allows for standardized, objective risk assessment to benchmark the bank's internal assessment.

To address the lack of public information about SMEs and the risk management requirements, many SME loan originators and investors are integrating SME credit risk models into the framework of their risk management practices. To derive a score or other metric to measure credit worthiness, SME fund managers should implement quantitative probability of default (PD) and loss given default (LGD) credit measures, which will result in the most accurate credit risk assessments and equip the manager to make more informed risk decisions. These PD and LGD metrics are often mapped to an internal credit rating to facilitate internal and external communication about the riskiness of the loan relative to the rest of the portfolio. SME fund managers can have hundreds of exposures in the form of credit extended to SME's in varying industries and states of financial health. These exposures need to be consolidated and monitored, both when the exposure is originated and over time.

Industry best practice incorporates an internal scorecard that includes quantitative and qualitative factors to derive a credit score. A recommended approach is to develop internal scoring models, using validated third-party models as an input to an internal model or as a benchmark to ensure accuracy. A risk-based approach that combines both quantitative and qualitative factors into a single comprehensive analysis gives greater insight into the creditworthiness of the obligor. SME fund managers should also go one step further and ensure the same scoring system and framework is being used across divisions and geographies to standardize the analytical process and to avoid analytical errors.

Conclusion

As SME lending continue to shift from bank financing to non-traditional financing sources, the need for SME credit funds to adopt some of the tools and practices in place at banks will become more prevalent. We are already seeing these funds recruit experienced SME credit analysts and bankers to bring this knowledge in-house. As banking regulation and risk management practices have made the use of standardized risk measures more ubiquitous in the banking industry, these practices are being adopted by alternative lenders to communicate risk at the point of origination, for portfolio monitoring and for risk transference.

About the Author:

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Jim Sarrail manages a team of credit risk model specialists with clients throughout Europe and the Middle East. Jim's team is focused on Moody's Analytics private and public probability of default models; RiskCalc and CreditEdge™ Plus, as well as credit portfolio management and valuation; RiskFrontier™. He has been applying quantitative techniques and economic reasoning to help financial firms navigate regulatory, legal and business challenges for a number of years and from a number of different perspectives, including; the Loan Syndications group at Bank of America, Corporate Treasury at a very large, US-based Health Care Company and Client Services at KMV, now a part of Moody's Analytics. In these roles Jim has developed an appreciation for the nuances of credit risk assessment as lender, borrower and financial service provider. His recent engagements have focused on topics including the rise in SME lending. Leveraging the capabilities of Moody's RiskCalc Plus, he is able to deliver private firm-level default probabilities and thus equip the fund manager to more precisely price for loan risk. His areas of focus include: quantitative credit risk modeling and management, transfer pricing, portfolio management, credit analysis, banking, and fixed income.