

Miguel de Cervantes wrote in Don Quixote, “It is the part of a wise man to keep himself today for tomorrow, and not venture all his eggs in one basket.” Four hundred years later, we still counsel one another to avoid betting everything we have on one possibility and to spread our risks among several alternatives.

In banking, we ration credit to minimize concentration in any one borrower and to maximize diversification across many borrowers. After all, as the exposure to any one borrower increases, the lender is more vulnerable to disruptions in the borrower’s ability to generate sufficient cash flow and repay the loan. The lender also has to consider the borrower’s own vulnerability to industry life cycles.

To measure how well we are managing diversification of borrower risk, we need to figure out how much credit we have granted to any one borrower as well as any other borrowers related to that borrower. This measure of all the exposure to a borrowing relationship is called total credit exposure (TCE). By defining and calculating TCE, a bank will have a consistent quantitative measure of borrower concentration that can be compliant with regulatory guidance and comprehensive enough for approval purposes and basic portfolio management.

Defining TCE

The first step in defining TCE is to decide what it’s to be used for. At a minimum, the TCE measure must ensure that the bank complies with legal lending limits on credit exposure to any one borrower. Banking regulations call for the aggregation of 1) credit extended to a borrower, 2) credit guaranteed by the borrower, and 3) credit extended to other entities with which the borrower is related by ownership, control, or economic interdependence.

Prudent bankers typically err on the side of caution by defining TCE for approval purposes much more inclusively, ensuring that approval TCE adds up to more than what the regulations require. Further, a bank typically sets its maximum TCE at a level well below its legal lending limit—say, at 30% or 60%—and requires amounts in excess of that limit to be approved by very senior executives.

Portfolio risk managers may seek to push the boundaries of a borrower’s links to related parties even further in order to measure covariant risks. For example, a community bank may have $5 million in loans to a local food-processing firm that is the largest employer in the area. It also has $3.5 million in mortgages and car loans to the employees of that firm. What happens if the food-processing plant is ordered shut because of salmonella poisoning in the peanut butter it manufactures? This degree of linkage is outside the scope of this article, but it is a logical extension of TCE.
Building the TCE Framework. Let’s sharpen our definition of TCE with some additional steps: 1) count credit exposure all over the bank; 2) address the wholesale-retail issue; 3) decide what to do with exposures and outstanding; 4) deal with the degrees of guarantees; and 5) inventory various credit products and services for inclusion or exclusion in TCE.

Here are some suggestions:
• Include the whole bank. An accurate, complete calculation of TCE requires disclosure of credit exposure to any given borrower wherever it is booked—in the bank and in its subsidiaries and affiliates.
• Separate business from retail exposure. Most banks underwrite business borrowers and retail borrowers separately to accommodate the differences in purposes, underwriting, documentation, and compliance. Generally, retail borrowers are underwritten, approved, booked, and monitored centrally. The result is a homogeneous, standardized loan “product” supported by collateral sufficient at any time during its amortization to liquidate the loan. In contrast, a business borrower’s reasons for borrowing, sources of repayment, and collateral are more diverse and uncertain. Separate loan booking and accounting systems make the aggregation effort cost-prohibitive for most banks, and the collateralized nature of most retail lending results in relatively low risk compared to the cost. Assuming that retail lending is for personal consumption and the underlying collateral is self-liquidating, commercial banks generally narrow their business TCE to credit extended for business purposes. The exception to this rule is credit exposure extended on the retail side for business purposes.
• Count direct obligations for business purposes. The direct obligations of a borrower include outstanding balances on loans and the commitment amount for facilities such as lines of credit, letters of credit, and revolving arrangements. Commitment means both the funded and unfunded portions, whether legally committed or extended under a guidance facility. Commercial TCE also includes any consumer mortgage and other retail debt extended to individuals for business or commercial purposes. All other consumer, mortgage, and retail debt is excluded.
• Count indirect obligations. A borrower may cosign, guarantee, or endorse other notes and commitments. These legal commitments also are aggregated in the borrower’s TCE.
• Evaluate related interests. A borrower may also be responsible for the debts of other bank borrowers through ownership, control, or economic interdependence. These related interests must be evaluated closely.

Relationship TCE
As mentioned above, in addition to the borrower’s own TCE of direct and indirect exposures, there may be exposures to other entities that will have to be added to the borrower’s TCE to arrive at the borrower’s relationship TCE.

Sometimes, a borrower’s relationship TCE is more than a simple sum of the borrower’s individual TCE and other-entities TCE. Each of the individual entities within the borrower’s relationship may include indirect exposures to other entities. Accordingly, for loan approval purposes, it’s important to calculate TCE under varying degrees of guarantees, ownership, control, economic interdependence, and related interests.

Guarantees. Include in the borrower’s relationship TCE any exposure fully guaranteed by the borrower. If the borrower’s guarantee of a specific exposure is limited, then include only the limited amount of the partial guarantee for that specific exposure. For example, if the borrower has a 50% limited guarantee of another entity’s $250,000 line of credit, include only $125,000 (50% x $250,000) in the borrower’s relationship TCE. Other exposures of the entity may be subject to aggregation in the borrower’s relationship TCE, however, depending on the degree of the borrower’s ownership, control, and economic interdependence with the entity. The examples below illustrate the differences in TCE between a full guarantee and a limited guarantee:

Full guarantee:
Borrower Grande Corporation owes bank $5 million.
Venti Inc. owes bank $400,000.

Borrower Grande Corporation fully guarantees $400,000 debt of Venti.
Borrower Grande Corporation TCE = $5 million + $400,000 = $5.4 million.

Limited guarantee:
Borrower Grande Corporation owes bank $5 million.
Venti Inc. owes bank $400,000.

Borrower Grande Corporation guarantees 50% of Venti debt.
Borrower Grande Corporation TCE = $5 million + 50%($400,000) = $5.2 million.

Ownership Interests. The borrower may be linked by ownership to a parent, subsidiary, affiliate, partner, or some other entity. The linkage may be strong enough to require aggregation of the related entity’s credit exposure into the borrower’s relationship TCE.

Such economic interdependence occurs when direct benefit and/or common enterprise is present:
• The proceeds of the loans or extensions of credit are used for the direct benefit of the related entity. The related entity...
may be a person as well as a legal entity. Direct benefit exists when the proceeds or assets purchased with the proceeds are transferred to the related entity at less than an arm's length transaction in order to acquire property, goods, or services.

- A common enterprise exists between the borrower and related entities in any one of these situations:

1. When the expected source of repayment for each loan or extension of credit is the same for the borrower and the related entity, and neither the borrower nor related entity has another source of income to pay either the loan or their other obligations.

2. When individuals or entities borrow separately from a bank to acquire a business enterprise of which the borrowers’ combined ownership exceeds 50%—for example, 50.1%—of the acquired enterprise’s voting securities or voting interests.

3. When loans or extensions of credit are made to borrowers who are related directly or indirectly through majority control, defined as when an individual or entity directly or indirectly, or acting through or together with one or more others:
   - Owns, controls, or has the power to vote more than 50% of any class of voting securities—for example, 50.1%, of another entity, or
   - Controls, in any manner, the election of a majority of the directors, trustees, or other persons exercising similar functions of another entity, or
   - Has the power to exercise a controlling influence over the management or policies of another entity.

4. When both of the following conditions are met:
   - Borrowers are related directly or indirectly through common control, that is, when an individual or entity directly or indirectly, or acting through or together with one or more others, owns, controls, or has the power to vote 25% or more of any class of voting securities of another entity, and
   - Substantial financial interdependence exists between or among the borrowers. Substantial financial interdependence is generally considered to exist when more than 50%—for example, 50.1%—of one borrower’s annual gross receipts or annual gross expenditures are derived from transactions with the other borrower. Gross receipts and expenditures include gross revenues, expenses, intercompany loans, dividends, capital contributions, and similar receipts or payments.

5. When, after evaluating the facts and circumstances of particular transactions, the credit approval officer determines that a common enterprise exists. For example, if financial distress of either party would have a material adverse effect on either party or when common trademarks, intellectual property, reputation, or other factors apply, common enterprise exists.

The following ownership rules are suggested for governing aggregation:

- If the borrower, principal, or guarantor owns less than 25% of the related entity, aggregation is not required unless the final concurring credit officer determines that the borrower, principal, or guarantor still exercises enough control through direct benefit or common enterprise to require the related entity to be aggregated in the borrower’s TCE. For example, the general partner in a real estate limited partnership holds a 3% interest, but the limited partnership agreement gives the general partner control of the partnership. In such cases, the limited partnership debt is included in the general partner’s TCE.

- If the borrower, principal, or guarantor owns more than 50% of the related entity, then the majority ownership interest gives the holder effective control, so all of the related entity’s exposure to the bank is included in the borrower’s TCE, even if the borrower does not guarantee or limits the guarantee.

- If the borrower’s ownership of the related entity is 25% or more up to and including 50%, and if economic interdependence exists between the borrower and the related entity, the presence of both the 25-50% ownership and the economic interdependence criteria requires aggregation of the related entity’s debt into the borrower’s TCE.

Related Interests. Other related exposures that may require evaluation for aggregation into a borrower’s relationship TCE include the borrower’s involvement in joint ventures, general partnership, and trusts.

- Borrowing entities: privately owned C corporations, S corporations, joint ventures, and general partners. This approach treats these organizational forms interchangeably. First, the full debt of the partnership or joint venture is attributed to each partner/member unless legally limited. Second, loans to individual partners/members are attributed to the partnership/joint venture, and loans to individual partners/members are attributed to the other partners/members if the direct benefit rule or common enterprise rule is applicable to the member-partnership relationship.

- Management. The credit exposures of executives and other members of a corporation are not aggregated into their corporation’s relationship TCE unless they meet the criteria for inclusion of exposures for guarantors, owners, and entities qualifying under economic interdependence.

The full debt of the partnership or joint venture is attributed to each partner/member unless legally limited.
• Trusts. Trust exposure is not aggregated into the relationship TCE of a trustee if the trustee receives no direct benefit from the trust.

**Disaggregation of TCE.** The bank’s compliance with its legal lending limit needs to be administered firmly, so it is suggested that requests for exclusion of any required exposure from the TCE calculation require the approval of the chief credit officer (or his or her designee) and that the approval be obtained before the request is presented to the borrower.

**Some Examples of TCE Aggregation**

The aggregation of a borrower’s ownership interests and economic interdependence is illustrated in the following examples for calculating Grande Corporation’s TCE:

**50+% ownership:**

Borrower Grande Corporation owes bank $5 million.

Venti Inc. owes bank $400,000.

Grande owns 51% of Venti but does not guarantee Venti’s $400,000 debt.

Borrower Grande Corporation’s TCE = $5 million + $400,000 = $5.4 million.

Explanation: 50+% ownership overrides lack of guarantee.

**25% or less ownership:**

Borrower Grande Corporation owes bank $5 million.

Venti Inc. owes bank $400,000.

Borrower Grande owns only 25% of Venti and does not guarantee Venti’s $400,000 debt.

Borrower Grande Corporation’s TCE = $5 million.

Explanation: Insufficient ownership precludes aggregation.

**Approval**

The table above offers one way to assign lending authority based on TCE and the borrower’s risk rating. First, a transaction-based authority leaves the bank vulnerable to a lender making multiple loans without additional oversight, and TCE prevents this from occurring. Second, tying the authority to the risk rating rewards lenders for finding more creditworthy clients and pulls in more experienced approvers as credit risk increases.
Portfolio Risk Management

TCE offers a way to limit single-borrower concentration across the bank and in specific portfolios. For example, because of the attention commercial real estate attracts, a bank may seek to limit its exposure in the real estate portfolio by setting limits on project types, as in the following example.

The bank’s maximum TCE exposure shall not exceed:
• $10 million to any one commercial real estate (CRE) borrower and its interests.
• $5 million to any one CRE developer or investor.
• $2.5 million to any one CRE project.
• $1 million to any one acquisition and development project.

In addition to this limit on line-of-business concentration, portfolio risk managers may use TCE to set limits on geography, industry, or other characteristics. Concentration risk management is beyond the scope of this article, but TCE is the obvious tool to employ when setting quantifiable limits.

Conclusion

The Roman poet Horace complained, “One cannot know everything,” but bankers ought to know their borrowers and their exposures to them, and the regulatory community agrees. This article offers some guidance and rules for adding up all the credit exposure to any given borrowing relationship—direct, indirect, and related interests—to arrive at a TCE measure compliant with regulatory legal lending limits, designed for commercial lending authority approval, and useful for portfolio management purposes.

Marge Jaketic is first vice president and credit policy officer, SunTrust Banks, Atlanta, Georgia. Contact her at marge.jaketic@suntrust.com. Dev Strischek is senior vice president and senior credit policy officer, SunTrust Banks, Atlanta, Georgia. He is also a member of The RMA Journal editorial advisory board. Contact him at dev.strischek@suntrust.com.

Notes
1. Refer to 12 USC 84 for bank regulatory guidance on legal lending limit, common enterprise, economic interdependence, and other topics mentioned in this article.
2. A designee is usually defined as a subordinate in the approver’s direct chain of command who is granted some or all of the approver’s authority temporarily when the approver is out of the bank or needs additional adjudication support.

Write to editor@rmahq.org