COMMENTARY

Evaluation of the Lease Accounting Proposed in G4+1 Special Report

AAA Financial Accounting Standards Committee

Stephen G. Ryan (Chair); Robert H. Herz; Teresa E. Iannaconi; Laureen A. Maines; Krishna G. Palepu; Katherine Schipper; Catherine M. Schrand; Douglas J. Skinner; Linda Vincent

CHARACTERISTICS OF A CONCEPTUALLY SOUND LEASING STANDARD

The Committee supports development of a single, conceptually sound approach to accounting for all types of leases and believes that such an approach should have the following characteristics:

1. The approach should recognize that all leases, regardless of their specific terms and conditions, convey rights and obligations, and so create assets and liabilities. The nature of the property under lease should not affect the accounting, nor should the length of the lease.

2. The approach should recognize that accounting for leases is a special case of accounting for contracts. Accounting for all contracts should be placed on a sound conceptual footing, and the principles developed for leases should be both internally consistent and generalizable, in the sense that the principles governing accounting for leases should be suitable for application to accounting for contracts generally.

3. The approach should be robust to shifts in the contractual details of lease contracts when such shifts do not materially alter the economic substance of the arrangements. In particular, the approach should require that substantially similar lease contracts be accounted for similarly and substantially dissimilar lease contracts not be forced into a misleading appearance of comparability.

4. The approach should take account of practical realities of the leasing market that make measuring lease assets and liabilities difficult. Because lease contracts are

The Financial Accounting Standards Committee of the American Accounting Association (hereafter the Committee) is charged with responding to requests for input from standard setters on issues related to financial reporting. This article is based on the Committee's response to the FASB's invitation to comment on the G4+1 Special Report, “Leases: Implementation of a New Approach” (hereafter the Special Report). This article reflects the views of the individuals on the Committee and not those of the American Accounting Association. Principal authors are Stephen G. Ryan, Katherine Schipper, and Linda Vincent.
frequently tailored to the desires of the parties to the lease, it can be difficult or even infeasible to identify similar lease contracts. Moreover, public information about the specifics of lease contracts is often unavailable. For these reasons, the markets for trading lease assets and liabilities are relatively undeveloped. In addition, the existence of transaction costs associated with relocating and releasing assets under lease may yield incentives that affect the contractual lease provisions.

While the measurement difficulties discussed in point 4 above must be considered carefully, the Committee believes that the principles governing accounting for lease receivables and liabilities should conform to the accounting for other financial instruments. In this regard, we note that in previous comment letters to the FASB (most recently, to its December 1999 Preliminary Views “Reporting Financial Instruments and Certain Related Assets and Liabilities at Fair Value”), the Committee stated its support for fair value accounting for financial instruments once the conceptual and measurement issues are resolved.

REVIEW AND DISCUSSION OF EMPIRICAL RESEARCH

This section contains three parts. Part 1 surveys empirical research and related practice on the use of financial report disclosures of minimum operating lease payments (hereafter operating lease disclosures) by investors for equity valuation and equity risk assessment purposes. This research generally finds that estimates of the lease obligation derived from operating lease disclosures are associated with the market value of equity and market-based measures of equity risk similar to recognized capital leases and debt. Likewise, evidence indicates that practitioners treat operating leases like debt. Part 2 summarizes empirical research bearing on whether balance sheet recognition of operating leases would be more useful for decision-making purposes than the current disclosures of minimum lease payments. The research findings are mixed but suggest that the usefulness of lease information to decision makers would not be reduced and might be improved by recognition rather than disclosure of all leases. Part 3 surveys empirical research that describes how leasing behavior has changed over time in response to changes in accounting rules.

1. **Existing research indicates that operating leases are similar to capital leases and debt for valuation and risk assessment purposes.**

Academic accounting research generally finds that leases, whether accounted for as operating or capital leases, are treated like debt for risk assessment and valuation purposes. For example, Bowman (1980) finds that estimated lease liabilities based on ASR No. 147 disclosures are positively associated with market-based measures of equity risk. Similarly, Ely (1995) and Imhoff et al. (1993, 1995) find that estimated operating lease liabilities based on SFAS No. 13 disclosures are positively associated with measures of equity risk. Whisenant (1998) finds that the market value of equity reflects estimated operating lease liabilities based on SFAS No. 13 disclosures.

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1 Contrast this with the market for mortgage-backed securities, which was created by entities such as Fannie Mae and Ginnie Mae, that devised standards for “conforming” mortgages.

2 Item 601 of Regulation S-K, which defines the exhibits to be included in SEC filings, requires in the section on Material Contracts that “any material lease under which a property described in the registration statement or report is held by the registrant” be included as an exhibit.
Finance research provides a slightly different view, in part because it focuses on attributes that distinguish lease financing from debt financing, such as differences in tax benefits. Classical finance theory (e.g., Myers et al. 1976) assumes Miller-Modigliani markets. Assuming no taxes, or that leases and debt are taxed in the same way, and that the lessor is able to finance the leased asset with 100 percent debt financing, leases and debt are perfect substitutes for the lessee; i.e., a dollar of economic lease liability displaces a dollar of debt. When tax differences between leases and debt are introduced, so that leasing shifts tax benefits from lessees to lessors, or when the lessor has to finance the leased asset in part with equity, leases and debt become imperfect substitutes with a dollar of lease displacing more or less than a dollar of debt. The amount of debt displaced depends on the relative tax rates of lessee and lessor and the ability of the lessor to finance the leased asset with debt.

In contrast to this classical theory, which excludes most of the frictions that characterize actual markets, recent empirical evidence examines the observed relations between debt and leases. Bowman (1980) and Ang and Peterson (1984) report that firms with more debt also have more leases, results consistent with debt and leases being complements, not substitutes. Extending these results, Lewis and Schallheim (1992) provide evidence that the tax advantages of leasing induce firms to increase the total amount of debt-like claims in their capital structure. These results do not imply that leases are not similar to debt, but rather that leases and debt typically have different claim priority as well as different tax, incentive, and contracting implications (Barclay and Smith 1995).

Financial analysts also treat noncancelable leases like debt with the nature of the analysis becoming more sophisticated over time. For example, until recently Standard & Poor’s debt rating analysis estimated the operating lease liability by multiplying the annual rent by a factor of 8 and adding the result to balance sheet debt. Cottle et al. (1988) state that this rule-of-thumb procedure is consistent with the approach of many security analysts. Currently, Standard & Poor’s (2000) converts all operating leases to capital leases as described below:

The debt-equivalent value of operating leases is determined by calculating the present value of minimum operating lease obligations as reported in the annual report’s footnotes. The lease amount beyond five years is assumed to mature at a rate approximating the minimum payment due in year five.

Cottle et al. (1988) and Copeland et al. (1990) both advocate that security analysts treat operating leases in much the same way as Standard & Poor’s current approach.

2. Empirical research on disclosure vs. recognition of leases finds mixed results, but suggests that the usefulness of lease information to decision makers would not be diminished and might be improved by recognition of all leases as proposed in the Special Report.

Wilkins and Zimmer (1983) find that a group of loan officers treated all leases as debt-equivalents, regardless of whether the lease information was recognized or disclosed, consistent with disclosure being sufficient for credit decisions. However, loan officers are presumed to be sophisticated decision makers who are particularly conscious of leverage, and the results might not generalize to equity investors. Imhoff et al. (1993, 1995) find that market-based equity risk measures appear to reflect simple estimates of operating lease liabilities. Specifically, Imhoff et al. (1993, 1995) explain a
greater proportion of equity risk when they estimate operating lease liabilities using the rule-of-thumb procedure described by Cottle et al. (1988) (eight times the recognized annual rent expense) than when they use the more sophisticated approach of estimating these liabilities as the present value of the minimum lease payments.

Finnerty et al. (1980) compare estimates of systematic risk across three periods: pre-ASR No. 147, when little lease information was required; during the period of ASR No. 147 footnote disclosures; and during the SFAS No. 13 period, when capital leases became recognized on the balance sheet. They find no change in systematic risk across the three periods and conclude that investors used information about leases from sources other than financial reports to assess risk. Their study does not control for shifts in financing associated with SFAS No. 13, however, as described in part 3 below.

3. Empirical research finds that leasing behavior changes when lease accounting rules change.

Imhoff and Thomas (1988) find that many lessees restructured their existing capital leases in response to the adoption of SFAS No. 13 and that the most common effect of SFAS No. 13 was the substitution of operating leases for capital leases, presumably in order to avoid liability recognition. They also find evidence that firms substituted equity financing for leases. El-Gazzar et al. (1986) and Morsfield (1999) find that debt covenants, managerial compensation, and taxes influence lessees’ choice of lease type under SFAS No. 13.

The recent development of the synthetic lease provides another example of leasing behavior affected by accounting rules. Synthetic leases take advantage of differences in the criteria for capital leases under SFAS No. 13 and IRS rules to produce operating lease treatment for financial statement purposes and capital lease treatment for tax purposes. Because they are costly to structure, synthetic leases are rarely used for lease transactions under $10 million. Synthetic leasing has been studied both by academic researchers (Morsfield 1999; Weidner 2000) and by practitioners (Holmes 1996; Sandler 2000).

CONCEPTUAL ISSUES RAISED BY THE G4+1 IN THE SPECIAL REPORT

In this section, we discuss various conceptual issues about the accounting for leases raised by the G4+1 in the Special Report that also apply generally to the accounting for contracts. Our discussion is based in part on accounting theory research regarding leases and other executory contracts. This literature does not generally distinguish the two kinds of contracts.4

The Committee believes the goal for lease accounting is to represent the value of the rights and obligations conveyed by the lease, not the value of the physical assets, unless there is no material difference between the value of the physical assets and the value of the rights and obligations. The Committee also believes this goal is better served by accounting standards that rely on expert judgment based on all facts and

3 Law (1999) states that synthetic leasing is largely restricted to U.S.-based entities or entities with lease obligations reported under U.S. GAAP. He notes, however, that non-U.S. entities using IAS No. 17 may also be eligible for synthetic leasing, but that few synthetic leases have closed outside of the U.S.

4 Three of the four papers we discuss below pre-date the development of conceptual frameworks as a basis for standard setting. The fourth, Ijiri (1980), was sponsored by the FASB during the development of the conceptual framework in the U.S.
circumstances than by standards that establish bright-line rules. Although the Committee recognizes the potential problems of a judgment-based approach, particularly with respect to measurement issues and the perceived reliability of the reported results, we believe that the importance of economic relevance outweighs such concerns.

1. Should leases be recognized in financial statements at lease signing or delivery?

The accounting theory literature (e.g., Rappaport 1965; Vatter 1966; Wojdak 1969; Ijiri 1980) discusses when leases should be recognized on the balance sheet—at the signing of a contract or at delivery—and whether leases are logically different from other executory contracts. Regarding the timing of lease recognition, Vatter (1966) states “[t]he lease is a complete transaction. The relations established by the contract are positive and specific; even though certain acts are unperformed, the arrangement is incomplete only in the sense that it involves future time.” Consistent with this argument, Wojdak (1969) likewise defines a transaction as an exchange of service potentials, not as the immediate availability of service potentials. Rappaport (1965), Vatter (1966), Wojdak (1969), and Ijiri (1980) each argue that the signing of leases yields expected benefits and incurs obligations, and so should result in balance sheet recognition of both assets and liabilities.5 Wojdak (1969) and Ijiri (1980) extend this conclusion to all firm commitments.

The Committee believes that signing a contract constitutes a transaction whenever it is probable that the signed contract will be executed. Our position is consistent with, but goes further than, the literature on leases and executory contracts surveyed above and implies that firm commitments are not always required for recognition. We believe that the question of whether a contract is noncancelable is less economically meaningful than the question of whether the contract will probably be executed, whenever the two questions yield different answers.6 The Committee also believes that virtually all signed leases will probably be executed, because it is unlikely that a lease would be signed by both parties without the expectation of mutual execution. Therefore, we conclude that virtually all leases should be recognized at signing.

In contrast, the G4+1 proposes that leases should be recognized at the delivery of the leased asset and that the act of delivery is a meaningful way to distinguish leases from executory contracts for the purposes of accounting recognition. The Committee views the distinction between leases and executory contracts based on delivery as both strained and not grounded in concept, particularly when contracts are written so as to make performance probable. A contract written so that performance is probable imposes both rights and obligations on the contracting parties and should yield recognized assets and liabilities. The Committee views a conceptual distinction between leases and executory contracts as problematic if the distinction later places obstacles in the path of obtaining a coherent and internally consistent approach to the accounting for contracts generally.

5 Ijiri (1980) includes an appendix that surveys the entire literature on executory contracts. He states that “the bulk of the articles surveyed here agree” that a “lease is not different from other commitments. All commitments should be capitalized.”

6 The Committee also believes, however, that legally minimum lease payments are important for some sorts of analyses or in some situations, and so recommends that material differences between minimum and expected lease payments be disclosed.
The Committee believes that the G4+1 relies on delivery in the Special Report as a pragmatic device to limit the scope of the project and not as a concept. If the G4+1 wishes to consider leases before, or separately from, other contracts, then this decision can be justified in terms of practical constraints on the resources that can be devoted to any one project. Using delivery to distinguish leases from executory contracts could create additional work, or the potential for inconsistencies, when the accounting for contracts other than leases is considered.

Unlike delivery, the Committee believes that the probability of execution is a meaningful concept to distinguish leases from certain other executory contracts. In particular, for many executory contracts such as personal performance contracts, it may be difficult to assess the probability of execution or the probability of execution may be low.

2. Should payments that are optional or contingent but probable because of the terms and conditions of a lease contract yield recognized lease assets and liabilities?

Optional and contingent lease payments (hereafter optional payments) include usage-, sales-, and price-contingent rentals, renewal options, and residual value guarantees. The question of whether optional payments should be included in recognized lease assets could be addressed empirically if data on optional payments were available to researchers. The accounting research reviewed above is silent on this issue, however, because the minimum lease payments disclosed under ASR No. 147 and SFAS No. 13 exclude optional payments other than residual value guarantees.

A conceptually sound leasing standard must adopt a consistent and economically descriptive approach to accounting for optional payments. The Committee's preferred approach is to recognize the expected value of optional future lease payments in lease assets and liabilities when the probability that such payments will be made is determined to be sufficiently high. We do not attempt to define "sufficiently high," but the definition of this threshold should reflect a balance between moving toward the theoretically desirable goal of fair value accounting for lease receivables and liabilities and practical issues such as financial statement auditability and clarity. Under pure fair-value accounting, lease receivables and liabilities would be recognized at the expected discounted value of the future lease payments, regardless of the probability of these payments. On the other hand, practical issues may suggest a high probability threshold. We believe that there should naturally be an evolution over time toward a lower probability threshold as fair-value accounting for financial instruments in general and leases in particular becomes established practice, and as managers and auditors become more expert in making these probability judgments.

The G4+1 is not consistent in its treatment of probable payments that are not firm commitments, which leads to differences between the Committee and the G4+1 regarding how to account for specific optional payments. For example, the Committee would recognize lease assets and liabilities for probable usage-contingent rentals, whereas the G4+1 would not. Both the Committee and the G4+1 would recognize lease assets and liabilities for probable sales-contingent rentals. The G4+1 and the Committee come to the same conclusion of not to recognize leases assets and liabilities for renewal options, but for different reasons. The G4+1’s criterion is that renewal options are not firm commitments, whereas the Committee’s criterion is that the probability of renewal option exercise usually cannot be reasonably assessed at lease initiation. The Committee believes that consistency dictates that the probability criterion be applied to all optional payments.
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Note that the G4+1 proposes to account differently for sales-contingent rentals, which are only partly controllable by the lessee, from usage-contingent rentals and renewal options that, while they will probably be exercised, are legally fully under the control of the lessee. The Committee does not believe that this distinction is economically meaningful as a general rule.

The Committee recognizes that the assessment of the probability of lease payments can be difficult, in part because lease contracts often include features designed to influence subsequent decisions by the contracting parties. Specifically, contract features may affect the likelihood of lease renewal and cancellation as well as the probability of legally optional payments. Example 2 of Chapter 4 of the Special Report illustrates this point. In this example, a firm leases equipment for a three-year term at 5000 per year. The lessee has the right to extend the contract for two additional years at the same 5000 cost per year. If the lessee does not renew, then it must pay a penalty of 4000. A similar lease, without the renewal option, would require the same annual rental of 5000, but would not require the penalty. Comparison of the original lease and the similar lease implies that the 4000 penalty in the lease is effectively the cost of the option to renew the lease for two additional years at an incremental cost of 6000 (10000 less a refund of the 4000 penalty). Because of contracting frictions, the renewal option may not be separable from the lease contract, so the 4000 cost need not be the amount at which the option could be purchased separately.

The main purpose of the cancellation penalty in Example 2 is to increase the likelihood of lease renewal for two years. The probability of renewal increases with the magnitude of the penalty and the corresponding decrease in the payments in the renewal period. A sufficiently large penalty may make renewal highly probable. How large that penalty need be depends on the market for the leased asset, the lessee's noncontractual costs of nonrenewal, and other attributes of the lessee. On the other hand, renewal remains the lessee's legal choice regardless of the size of the penalty.

The Committee believes that expert judgment based on all pertinent facts and circumstances should be used to assess the probability and expected value of optional lease payments. Returning to Example 2, the Committee believes that the initial value of the lease liability should be the minimum contractual payments of 19000 (three rental payments of 5000 and the penalty of 4000). We chose this amount because we believe it is generally difficult to assess at the time of lease initiation the probability that renewal options will be exercised, and there is no additional information on which to base a probability estimate in this example. However, 19000 is the minimum; if renewal is probable, then the initial value of the lease liability should be increased by the expected incremental payments under the renewal option.

In relying on expert judgment based on all facts and circumstances, the Committee recognizes the individually tailored nature of many leases. In contrast, the G4+1 refers in various places in the Special Report to the use of comparisons between leases with and without specific features to value those lease features. The Committee questions whether the G4+1's reliance on this measurement approach is consistent with the practical realities of the leasing market where comparable leases may not exist and the level of information is low.

The Committee stresses the importance of disclosing the key terms and conditions of the lease contract, especially those governing optional payments. Specifically, payments that are not capitalized, such as renewal options not considered sufficiently probable, as well as capitalized contingent payments, such as usage-contingent rentals and residual value guarantees, should be described appropriately in the notes.
3. **Should lease assets and liabilities reflect gross or net lease payments?**

Leases can be structured in ways that appear to shift rights and obligations without actually doing so, depending on what stream(s) of payments are included in the measurements. For example, real estate leases can be structured net or gross of operating costs. Net leases offer smaller minimum lease payments, but the lessee is contractually required to pay real estate tax, insurance, and maintenance costs. Gross leases include these operating costs in the lease payments. Unless the operating costs are explicitly accounted for, the measured obligation of the lessee will be different under a net lease than under a gross lease.

The Committee favors capitalizing the estimated equivalent gross lease payments for net leases in order to maintain accounting comparability between economically equivalent gross and net leases. The difference between the equivalent gross and net lease payments are essentially payments on executory contracts for services, although these amounts are usually paid to third parties such as local governments, insurers, and maintenance firms rather than to the lessor. The Committee believes these payments have the same probability of being paid as do the payments on the net lease, however, and so are economically identical from the lessee's perspective and so should be accounted for as such.

4. **Should the nature of the leased asset or the term of the lease affect lease capitalization?**

The Committee believes that the nature of the asset under lease should not affect the accounting for a lease. In particular, leases of intangible assets and land should be treated in the same way as other leases.

The Committee recognizes that practical problems may arise when capitalizing leases of intangible assets. In particular, there are problems of measurement and of relating the leasing standard to the standards governing the accounting for intangible assets. For example, the current accounting for the costs to develop or even acquire certain intangible assets requires immediate expensing. For example, if a lease allows the lessee access to and use of an element of an in-process R&D project, then the intangible asset being leased would not be accorded asset status on the lessor's balance sheet under U.S. GAAP if it were internally developed or acquired separately but has no alternative uses (under SFAS No. 2) or acquired in a business combination (under FIN No. 4). These issues should not impede the development of a consistent and comprehensive leasing standard, however. In particular, the Committee does not believe that the current nonrecognition of most internally developed intangibles in many countries should lead to nonrecognition of leased intangible assets for lessees.

The Committee also believes that, in principle, materiality rather than the term of the lease should determine the accounting treatment. Determination of when a (short) lease is not material should be based on judgment and not some numerical rule. The Committee recognizes that practical issues arise in relying on materiality judgments. For example, given jurisdiction-specific materiality judgment guidance and implementation, it is possible or even likely that a lease accounting standard that requires a materiality judgment as a basis for recognition would lead to noncomparable results across jurisdictions. Another practical consideration is the possibility that managers who wish to avoid balance sheet recognition might structure a lease with immaterial accounting measures of assets and liabilities—even though the lease creates economically material rights and obligations—perhaps by structuring short leases.
with numerous renewal options. The Committee believes that our probability-based approach reduces the potential for this problem to occur compared to the G4+1's approach.

5. Should accounting be symmetric for lessees and lessors?

In general, the Committee favors symmetry in the accounting for lessees and lessors, though we can think of at least two reasons why there may properly be exceptions. The first exception pertains to appropriate differences in lessors and lessees' probability judgments. Lessors may account for homogeneous leases on a portfolio basis, similar to banks' accounting for homogeneous credit card loans. Probabilities of optional payments assessed at the portfolio level by lessors will differ from probabilities assessed by individual lessees.

A second exception stems from the deferral of income by lessors consistent with revenue recognition criteria, which differ across financial-reporting jurisdictions. The accounting by lessees naturally should not depend on whether lessors meet revenue recognition criteria.

6. Is fair valuation of lease receivables and liabilities desirable?

Although the G4+1 generally does not propose in the Special Report that lease receivables and liabilities be subsequently restated to fair value, the Committee believes that lease receivables and liabilities are financial instruments for which subsequent fair valuation should be considered. As noted above, however, our proposal to only recognize lease receivables and liabilities for probable lease payments stops short of pure fair-value accounting because of practical considerations.

The G4+1 proposes in the Special Report that residual value guarantees be fair valued, however. The Committee is concerned about the incomplete fair-value accounting nature of this proposal. Why should residual value guarantees be fair valued while other lease assets and liabilities are not? As discussed above, subject to measurement concerns, we favor consistent fair-value accounting for leases. However, compared to the inconsistent fair-value accounting proposed by the G4+1 in the Special Report, we prefer consistent historical cost accounting that accounts for residual value guarantees in the same way as other aspects of the lease. Consistent fair-value accounting requires immediate recognition of gains and losses when remeasuring the lease assets and liabilities associated with each aspect of the lease contract.

The Committee believes that the approach taken to fair valuing leases should be consistent with FASB Concepts Statement No. 7, which advocates exchange or transaction values as the basis for fair-value measurements, not values-in-use. The Committee also advocates disclosing the discount rate used to estimate fair values.
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