

Update to Chapter 3
Variable interest entities and U.S. GAAP
Replaces pp. 78, last paragraph, through 82

Although many SPEs have legitimate business purposes, they provide the opportunity to hide debt and losses from investors. Because the companies creating the SPEs typically do not have significant equity ownership, the consolidation requirements of ASC paragraphs 810-10-15-8 and 10 (previously in *ARB 51, SFAS 94*), which focus on voting equity ownership, do not apply. Hence, SPEs were usually not consolidated in companies' financial statements, and their operations kept off-balance-sheet and hidden from investors.

Application of the concept of control to SPEs is particularly challenging, because equity investors provide little of the funding, have little voting power, and do not absorb the majority of the risks and rewards of the entity. Losses absorbed by the equity holders are usually limited, and SPE debt may be guaranteed by parties without equity ownership.

The collapse of Enron in 2001 highlighted the limitation of consolidation standards that focused on equity ownership. Enron sponsored numerous legally separate "shadow entities," with limited purpose activities, that it did not consolidate. By not consolidating these entities, Enron understated its debt, and overstated its income by recognizing "profitable" transactions with the SPEs. In one type of sham transaction, Enron issued its own stock to a nonconsolidated SPE that used the stock as collateral for a bank loan, paying Enron with the loan proceeds. When one views these transactions together, it is obvious that Enron increased its debt. However, because Enron did not consolidate the SPE, it reported the transaction as a stock issuance.

Codification standards for non-equity investments ASC Subtopic 810-10, Consolidation—Overall, includes special subsections (previously in *SFAS 167*) addressing consolidation and disclosure of interests in SPEs. The FASB defines the characteristics of entities to be considered for consolidation under these standards, coins the term **variable interest entity** to describe an entity with these attributes, and provides guidance for determining whether such entities must be consolidated.

What is a variable interest entity? The Codification defines a variable interest entity (VIE) as one having the following characteristics (*paraphrased from ASC paragraph 810-10-15-14*):

- The total equity investment at risk does not allow the entity to finance its activities without additional subordinated financial support, such as third party guarantees of payment.
- The equity investment at risk lacks at least one of the following characteristics of a controlling financial interest: (1) the power to direct the activities of the entity that most significantly impact its economic performance, (2) the obligation to absorb the expected losses of the entity, or (3) the right to receive the expected residual returns of the entity.
- The equity investors as a group lack the characteristics of a controlling financial interest if (1) the voting rights of some investors are not proportional to their

obligations to absorb the expected losses of the entity, their rights to receive the expected residual returns of the entity, or both, and (2) substantially all of the entity's activities either involve or are conducted on behalf of an investor with disproportionately few voting rights.

These provisions focus on the characteristics of the equity investment. Even a company with a small equity investment in comparison with its debt is typically not a VIE because it can obtain debt financing based on the strength of its equity investment and future expected returns from its business operations. An entity is a VIE when it must obtain *guarantees from other parties* to obtain financing, or when the *equity holders do not have the usual rights and responsibilities* pertaining to equity ownership, such as voting rights and the right to receive residual returns. Instead, another entity holds the rights normally given to equity holders.

The Codification states that an equity interest less than 10 percent of an entity's total assets indicates a VIE, absent evidence to the contrary. Entities with an equity investment of more than 10 percent of assets *could* be VIEs, especially when they are involved in high-risk activities. The question is whether the entity is able to finance its activities without additional subordinated financial support, such as guaranteed loans or future funding commitments, from affiliated entities. When the answer is "no," the entity is a VIE *regardless of the level of equity investment*.

Qualitative or *quantitative* analysis, or a combination of both, may be used to evaluate VIE status. The Codification suggests two possible qualitative indicators that the equity at risk is sufficient: (1) the entity has demonstrated its ability to obtain financing without additional subordinated support, and (2) the entity's equity is at least equivalent to the equity of similar entities that do *not* have additional subordinated support. When qualitative assessments are not conclusive, a *quantitative* analysis of whether the equity investment is sufficient to absorb the entity's expected losses may be used.

To illustrate quantitative analysis, assume an SPE is formed with \$15,000 in equity and \$133,000 in debt, a total investment of \$148,000. All expected cash flows occur at the end of one year. Exhibit 3.1 shows expected cash flows and expected residual losses and gains, using a 5 percent discount rate.

EXHIBIT 3.1 Calculation of Expected Losses and Residual Gains							
Expected Cash Flows	Present Value	Probability	Expected Present Value	Investment Fair Value	Residual Returns	Expected Gains	Expected Losses
\$189,000	\$180,000	0.75	\$135,000	\$148,000	\$ 32,000	\$24,000	
63,000	60,000	0.15	9,000	148,000	(88,000)		\$(13,200)
42,000	40,000	0.10	4,000	148,000	(108,000)		(10,800)
			<u>\$148,000</u>			<u>\$24,000</u>	<u>\$(24,000)</u>

Although the \$15,000 equity investment in the SPE exceeds 10 percent of the total assets of \$148,000, it is less than expected losses of \$24,000 and is not sufficient to absorb these losses. Therefore, when qualitative factors are inconclusive, this SPE is likely to be classified as a VIE.

Who must consolidate a variable interest entity? A reporting entity with a *controlling* interest in a variable interest entity is the VIE's **primary beneficiary** and must consolidate the VIE. The reporting entity has a controlling interest if it possesses both of these attributes (*paraphrased from ASC paragraph 810-10-25-38*):

- The power to direct the activities of the VIE that most significantly affect its economic performance, and
- The obligation to absorb the losses or the right to receive the benefits of the VIE that are potentially significant to the VIE.

Determining whether an entity is a VIE's primary beneficiary requires an understanding of the VIE's purpose and design, who makes the day-to-day operating and capital decisions, which decisions significantly affect performance, and how economic performance affects the VIE's investors. The Codification requires ongoing reevaluation of primary beneficiary status, as changes in investor rights and interests, governance structure, and business environment may affect the reporting entity's decision-making power and risk exposure.

Consolidation procedures for variable interest entities parallel those for controlling equity investments: the fair value of the VIE's assets and liabilities are combined with those of the primary beneficiary. But when the primary beneficiary and the VIE are already under common control, the assets and liabilities of the VIE remain at book value.

BUSINESS APPLICATION GM'S VARIABLE INTEREST ENTITIES

Note 16 of **GENERAL MOTORS'** 2009 Form10-K identifies several VIEs related to GM's operations:

Consolidated VIEs

VIEs that were consolidated because we or Old GM were the primary beneficiary primarily included: (1) previously divested and current suppliers for which we or Old GM made significant guarantees or provided financial support; (2) the Receivables Program; (3) vehicle sales and marketing joint ventures that manufacture, market and sell vehicles in certain markets; (4) leasing SPEs which held real estate assets and related liabilities for which residual guarantees were provided; and (5) an entity which managed certain private equity investments held by our and Old GM's pension plans and previously held by our and Old GM's OPEB plans, along with six associated general partner entities. Certain creditors and beneficial interest holders of these VIEs have or had limited, insignificant recourse to our general credit or Old GM's general credit, in which we or Old GM could be held liable for certain of the VIE's obligations.

Nonconsolidated VIEs

VIEs that were not consolidated because we or Old GM were not the primary beneficiary primarily included: (1) troubled suppliers for which guarantees were made or financial support was provided; (2) vehicle sales and marketing joint ventures that manufacture, market and sell vehicles in certain markets; (3) leasing entities for which residual value guarantees were made; and (4) GMAC.

Guarantees and financial support are provided to certain current or previously divested suppliers in order to ensure that supply needs for production were not disrupted due to a supplier's liquidity concerns or possible shutdowns. Types of financial support that we and Old GM provided include, but are not limited to: (1) funding in the form of a loan from us or Old GM; (2) guarantees of the supplier's debt or credit facilities; (3) one-time payments to fund prior losses of the supplier; (4) indemnification agreements to fund the suppliers' future losses or obligations; (5) agreements to provide additional funding or liquidity to the

supplier in the form of price increases or change in payment terms; and (6) assisting the supplier in finding additional investors. The maximum exposure to loss related to these VIEs was generally limited to the amount of accounts and notes receivable recorded with the suppliers and any related guarantees.

GM discloses the amounts and where in the financial statements it reports its interests in VIEs, and its estimated maximum exposure to loss due to these interests. At December 31, 2009, consolidated VIEs comprised \$273 million of GM's assets, and \$255 million of its liabilities.

Reporting Perspective

Through 2009, the Codification provided an exception for so-called "qualified SPEs" (QSPEs), allowing primary beneficiaries to keep these entities off-balance-sheet even when they otherwise qualified as VIEs. QSPEs were generally financial structures used by banks to package and sell (securitize) various types of loans. Because of the exception, banks and other financial institutions were able to remove loans from their balance sheets, hiding potential losses on these loans from investors, and in many cases, reported gains on "sale" of these loans to the QSPE. Banks began incurring huge losses on subprime mortgages during the 2007 "credit crunch." At the end of 2007, **JP MORGAN CHASE** and **CITIGROUP** had securitized almost \$1 trillion in loans in these QSPEs. Neither the loans nor their related losses were reported on the banks' balance sheets. In response to an SEC request, the FASB closed the loophole and requires QSPEs to be subject to the same consolidation requirements as other entities, effective with 2010 financial statements. *Source: D. Reilly, "FASB Signals Stricter Rules for Banks' Loan Vehicles," The Wall Street Journal, May 2, 2007.*

REVIEW 1 Identifying Consolidated Entities

Assume that **General Motors** has the following relationships with other entities:

Entity	VIE	Relationship
A	No	Owns 45% of the voting stock
B	No	Owns 60% of the voting stock
C	No	Owns 60% of the nonvoting preferred stock
D	No	Owns 100% of the voting stock
E	Yes	Shares decision-making power, as well as voting rights and board representation, 50-50 with another entity
F	Yes	Has a small equity investment, but the majority of funding comes from GM-guaranteed fixed-rate debt. GM determines the entity's business strategies and manages its day-to-day activities.
G	Yes	Owns the bonds of the entity, which make up the vast majority of the funding. The entity's equity investor created the VIE, and makes the operating and governance decisions. GM receives fixed payments from the bonds.

Required: Which of the above entities are likely to be consolidated in GM's financial statements?

Replacement for solution to Review 1, page 105

Review 1 Solution Non-VIEs: Entities B and D would be consolidated. GM has majority ownership of the voting shares of these entities. VIEs: Entity F would be consolidated. GM has the power to make decisions significantly affecting the entity's economic performance, and potentially incurs significant losses or benefits, from its equity investment and loan guarantee. GM is not the primary beneficiary of entity E, due to shared power and interests. GM does not have decision-making power in entity G.

Update to Chapter 3
Variable interest entities and IFRS
Replaces page 91, Special Purpose Entities section

Special Purpose Entities

IFRS addresses consolidation of special purpose entities in *SIC 12, Consolidation—Special Purpose Entities*, an interpretation of *IAS 27*. IFRS views the decision to consolidate a special purpose entity to be an application of the *same control concepts* used for equity investments. Indicators that a company has control of an SPE, and therefore should consolidate it, include the following:

- The purpose of the SPE is to provide the company with benefits.
- The company has the decision-making power to obtain most of the benefits of the SPE.
- By having the right to the majority of the SPE's benefits, the company has the responsibility to absorb the SPE's risks.
- The company retains most of the residual interest in the SPE.

In contrast, U.S. GAAP has a different consolidation model for SPEs. The reporting entity first evaluates each SPE to determine whether it meets the requirements of a variable interest entity, as described above. If the SPE is a VIE, the reporting entity determines whether it is the primary beneficiary, defined as the entity that has decision-making power and has the obligation to absorb losses or the right to receive benefits that could be potentially significant to the VIE. IFRS applies the same concept of control to *all* entities, including SPEs, and did not recognize an exception for QSPEs, as U.S. GAAP did through 2009. In fact, QSPEs are likely to be consolidated under IFRS, because their limited activities tend to benefit the sponsor.

The U.S. GAAP current criteria for consolidation of a VIE—power to make decisions and exposure to potentially significant losses and benefits—are similar to the IFRS indicators of control, and became effective in 2010. The IASB is revisiting the criteria for consolidation of all entities, and the FASB and IASB are working together to obtain convergence in this area.

Reporting Perspective

Prior to 2010, U.S. GAAP defined the **primary beneficiary** of a VIE as the entity that absorbs the *majority of the VIE's risks or returns*. The underlying quantitative analysis sometimes required a company to consolidate an entity over which it had no control, contradicting the premise behind consolidation. This definition also diverged from the IFRS focus on control. Revisions to U.S. GAAP, effective in 2010, retain the definition of a VIE, but change the definition of the primary beneficiary. The FASB eliminated the quantitative analysis of exposure to risks and returns previously used in determining the primary beneficiary, and now focuses on the more qualitative “power to direct activities,” as well as economic exposure to losses and benefits.

The IASB published an exposure draft, *ED10, Consolidated Financial Statements*, in late 2008, and in 2010 continues to deliberate the basis for consolidation of all entities. The resulting standard will replace both *IAS 27* and *SIC 12*, and should converge IFRS with

Revised Problem

E3.8 Identifying and Analyzing Variable Interest Entities Corporations A and B are formed to purchase property and lease it to end users C and D.

Required

In each of these independent cases, indicate whether A and B are variable interest entities and, if so, whether C or D is the primary beneficiary that should consolidate it. If A or B are not variable interest entities and should be consolidated with C or D, explain why.

- a. C owns 30 percent of A's equity and other investors own 70 percent. Ninety-two percent of A's assets are funded by bank loans that C guarantees. A's board of directors makes all significant operating and capital decisions. C selects six of the ten board members.
- b. B reports total assets of \$100 million and stockholders' equity of \$2 million; D is the sole owner of B's stock.
- c. Outside investor E owns all the stock behind A's stockholders' equity, which amounts to 15 percent of A's total assets. C contracts with E to compensate E for any of A's losses and to cap its residual gains at 10 percent of A's average equity in any one year. Excess residual gains will be distributed to C, who also makes the day-to-day decisions that affect A's economic performance. After addressing the VIE and consolidation questions, suppose A earns \$18 on average equity of \$100, and explain how A should account for any net income that exceeds 10 percent of its average equity.
- d. B purchases property and leases 25 percent of it to C and 75 percent to D. Both C and D guarantee specific residual values for the property they leased and neither have any interest in the stockholders' equity, which amounts to 10 percent of B's total assets. The property that C leases is fairly generic and has an active aftermarket whereas the property leased by D is dedicated to D's special needs and has no alternative uses. D covers 60 percent of B's funding needs with an unsecured loan. Banks provide the remaining funding that is secured by the leased property. B's operating decisions are made at the board level, and D controls the majority of the board.

Revised Solution

E3.8 Identifying and Analyzing Variable Interest Entities

- a.

The equity interests are traditional variable interests. However, because minority shareholder C guarantees 92% of A's debt, which is most of A's capital, and will absorb 92% of A's expected losses by protecting the subordinated debtholders, A is a VIE. C has decision-making power through its majority representation on the board. C has the obligation to absorb significant losses and benefits of A through its equity interest and guarantee of A's bank loans, and will likely be designated as A's primary beneficiary. One could also note that because A's equity is less than 10% of its total assets ($.08 = 1 - .92$) a presumption exists that A is a VIE.

b.

Without any other information, B is not a VIE. D is the sole owner of B and should consolidate B. Although contractual and other arrangements could suggest that B is a VIE, the problem is silent on these matters.

c.

The 15% equity could be enough to avoid identifying A as a VIE, if that amount of equity is deemed adequate to absorb A's expected losses. In that case, E is the controlling investor and C does not consolidate A.

If the 15% equity is not adequate, A is a VIE. C has the decision making power, and by agreeing to compensate E for any of A's losses, C absorbs significant losses. Therefore C is likely A's primary beneficiary and should consolidate A.

If A reports income that exceeds 10% of its average equity, the excess is distributed to C. A's shareholders could view this as a kind of insurance payment for being protected from losses, and would report it as an expense. If A earns \$18 on average equity of \$100, then \$8 ($= \$18 - 10\% \times \100) is C's share, accounted for as follows:

Dr.		Expense	8	
	Cr.	Payable to C		8

A, therefore, reports final net income of \$10 ($= \$18 - \8).

d.

B's stockholders' equity is only 10% of its total assets, and is insulated from losses by the guarantees provided by C and D. Moreover, D's unsecured loan to B provides additional subordinated financial support. These factors indicate that B is a VIE. D has decision making power through its control of B's board. Losses in guaranteed residual values on D's specialized property, and its unsecured loan, require D to absorb a potentially significant amount of B's losses. Therefore, it is likely that D is B's primary beneficiary and must consolidate B.

Revised Problem

E3.10 Identification of Variable Interest Entity and Primary Beneficiary Softek Corporation forms a separate legal entity, Startek, to develop new technology. The entity is funded by \$4,000,000 in outside equity and \$26,000,000 in debt. Softek guarantees Startek's debt. The entity is expected to generate the following cash flows at the end of one year:

Cash Flow	Probability
\$11,000,000	0.40
33,000,000	0.20
55,000,000	0.40

A discount rate of 10 percent is appropriate.

Required

- Assume qualitative analysis of Startek's VIE status is inconclusive. Quantitatively analyze whether Startek is a variable interest entity.
- Assume Startek is a variable interest entity. Identify the factors that determine whether Softek is the primary beneficiary that must consolidate Startek.

Revised Solution

E3.10 Identification of Variable Interest Entity and Primary Beneficiary

- If qualitative factors are inconclusive, the answer to this question depends on a quantitative analysis of the ability of the equity interest to absorb Startek's potential losses. The Codification specifies that if the equity interest is less than 10 percent of total assets, the entity is a VIE unless there is evidence to the contrary. However, in this case, the equity interest is 13 percent of assets (= \$4,000,000/\$30,000,000). Using the quantitative analysis presented in the chapter (and illustrated in ASC 810-10-55-53), expected gains and losses are computed as follows (*in millions*):

Expected cash flow	Present value	Prob.	Expected PV	Investment fair value	Residual returns	Expected gains	Expected losses
\$ 11	\$ 10	0.40	\$ 4	\$ 30	\$ (20)		\$ (8)
33	30	0.20	6	30	--		
55	50	0.40	<u>20</u>	30	20	<u>\$ 8</u>	
			<u>\$ 30</u>			<u>\$ 8</u>	<u>\$ (8)</u>

Because the \$4,000,000 equity interest is insufficient to absorb the expected losses of \$8,000,000 computed above, the quantitative analysis indicates that Startek is a VIE.

- Softek guarantees Startek's debt, so it likely has the obligation to absorb Startek's losses. However, we don't have any information on whether Softek has decision-making power over the activities that most significantly affect Startek's economic performance. If so, it is likely to be the primary beneficiary and will consolidate

Startek.

Revised Solution

P3.10 Consolidation of Variable Interest Entities

(dollar amounts in thousands)

a.

MCBC owns about 50% of each of these joint ventures, close to the over 50% needed for traditional consolidation; its 52% interest in BRI suggests consolidation. It reports guarantees of debt issued by BTI and RMMC, but it is not clear how significant this is. All of these ventures appear to be captive or near-captive entities largely designed to serve MCBC's needs in beer production and distribution. The ventures' profits directly benefit MCBC and the other owners. RMMC and RMBC are nontaxable entities and Grolsch is a taxable entity in the U.K., not the U.S. Grolsch's profits are limited by agreement. These conditions point toward VIE status. The captive nature of the entities leads to the conclusion that MCBC directs the activities that most significantly affect the performance of these ventures. There may be other agreements not disclosed that also point toward MCBC being the primary beneficiary of all four ventures.

b.

At the end of 2007, total assets of the four VIEs sum to \$580,341; half is \$290,171, a little over 2% of MCBC's \$13,451,566 of total assets, with and without the \$290,171. Half of the \$38,356 in pre-tax income of the ventures (credited to cost of goods sold) is \$19,178, about 4% of MCBC's 2007 net income of \$497,192. Neither of these are highly significant percentages of MCBC. The ventures' liabilities (unknown) are not likely large enough to have much of an effect on MCBC's leverage ratios.

c.

Considering that MCBC's purchases from the ventures affect its cost of goods sold, offsetting ventures' "profits" against COGS to reduce the cost reported there seems reasonable.