



# GLOBAL riskupdate

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# REASSESSING AND UPDATING CREDIT ANALYSIS AND MODELS

*After a financial crisis, there is always room for improvement in corporate credit-risk analysis. Tracy E. Williams, former managing director at JPMorgan, makes recommendations for model updates and shows how analysis can be forward-looking and anticipate unforeseen risks. The final article of three parts examines how to look for signals of insolvency, excessive debt levels and trouble lurking off-balance-sheet.*

## **Solvency: Looking for Weak Signals**

All discussions of liquidity, cash reserves and working capital lead to an examination of solvency. Emerging from a crisis, analysts will ask why they didn't see the signals of companies that defaulted or went bankrupt. There have been times when a company is deemed insolvent, despite satisfactory earnings, cash on hand, and a balance sheet without much of a debt burden.

Insolvency sends signals, although they are sometimes difficult to detect. Analysts should suspect a degree of insolvency if there is a combination of any of the following:

1. The company has no ability to refinance short-term debt,
2. A swift, significant short-fall in cash reserves occurs,
3. Most of its short-term lenders demand immediate paydown with little notice
4. Financial assets collapse in values,
5. Interest rates increase sharply with little evidence the company has hedged against the risk,
6. Third parties emerge from nowhere to stake their claims, or
7. The company has unusual, sudden obligations arising in unconsolidated subsidiaries.

Like liquidity, there is no one way to measure insolvency. Abundant factors contribute to it. Post-crisis, analysts should address it and hunt for weak signals. An important first signal? If



liquidity, measured by cash, marketable securities and immediately available funding sources, is substantially less than the sum of short-term liabilities, current interest expenses, other demand payouts, or other unanticipated liabilities, then the analyst should raise a flag.

## **Capital Structure: Fine-Tuning the Mix**

For many, capital structure is about the debt-equity ratio and perhaps an assessment of whether the balance sheet is overburdened with leverage. Companies have been able to survive downturns or withstand unanticipated

risks if they have sturdy balance sheets anchored by the right capital structure. Post-crisis, risk managers must examine whether the structure is appropriate for good times and bad.

**What is the right capital structure?** A high debt load doesn't imply a faulty capital structure. The appropriate mix of current and long-term debt and equity contributes to the right structure. But the evaluation goes beyond the right mix and should incorporate the following:

1. **Industry-related structure:** Is capital structure appropriate for the

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- company's industry (e.g., financing institutions, industrial companies or service companies)?
- Tenor matching:** Are assets and liabilities matched properly? Are fixed assets funded by long-term debt and/or capital?
  - Currency matching:** Are assets and liabilities by currencies matched properly (or hedged sufficiently) to minimize foreign-exchange risks?
  - Interest payments:** Is debt structured such that interest expenses (floating and fixed) are matched properly with cash flows from operations or from interest earned on certain assets?
  - Debt maturities:** Is debt structured such that principal payments are matched properly with cash flows?
  - Debt burdens:** Based on current operations or in a downturn scenario, at what point does the debt-equity ratio become too much of a burden, when the company struggles to meet principal and interest payments and/or when short-term lenders begin to pressure for paydowns?
  - Debt content:** If the amount of debt is appropriate, is the make-up of debt optimal?

### Debt: The Good and the Bad

Risk managers might conclude that the amount of debt on the company's balance sheet is manageable and is rationalized. Sometimes, however, they neglect to dissect the make-up and details of complex debt structures. A torrent of risks may exist beneath a single line of liabilities on the balance sheet. Debt structures today have numerous features, many not always be understood until a crisis event, or until it's too late (for both the lender and the borrower).

In one period, debt may appear as a fixed-rate senior, secured liability. In a subsequent downturn, the same debt might convert into a floating rate obligation with principal payments due that same quarter. While evaluating capital structure and debt-equity ratios, analysts should seek to understand debt nuances and understand the impact of a downturn.

- Fixed rate, floating rate structures,
- Senior secured, senior unsecured, subordinated, and convertible structures, and
- Prepayment options, call options, financial covenants

A downturn will decrease earnings and cash flows. Yet it will also cause anxiety among lenders and debt-holders who all seek an advantage to ensure payback or a comfortable position going forward. Analysts must ask whether the company has a capital structure that can endure such scenarios and the posture-changes by lenders and other creditors.

### Capital as Cushion: Surviving Stress

Besides providing a return to investors and helping to fund long-term assets, investments and expansion, capital provides a balance-sheet cushion. When a company confronts stress (arising from, for example, a recession, financial-market collapse, or customer defaults), ample amounts of capital help relieve companies from debt burdens, sudden losses, market wipeouts, or cash shortfalls.

Capital as cushion doesn't mean a company must manage a balance sheet supported all by capital and no debt. All capital implies the company is not exploiting the advantages of debt to generate improved returns on equity or to lower the overall cost of capital. (And investors will argue there is such a thing as too much equity capital.) The objective, of course, is to determine optimal levels of debt-equity—partly to avoid excess debt burdens and partly to ensure there is a sufficient capital cushion during downturns.

Analysts should, therefore, determine whether the capital structure is close to an optimal mix, one that also ensures a capital cushion exists for worst cases. To measure capital-cushion adequacy, analysts should perform some form of a balance-sheet stress test, using extreme-risk scenarios and measuring and deducing how the company will fare. The exercise is crude, but can tell much about whether the company can endure these scenarios or is prepared for them.

Stressing the balance sheet is an attempt to quantify the maximum amount of loss all categories of the balance sheet will suffer within a defined period (one week, one month,

six months, etc.). Losses might be due to collapse in asset values, business declines, surges in interest expense, volatile currencies, and customer defaults. After such losses (risks) are quantified (based on history, statistical probabilities, or worst-case assumptions), is there still enough capital (or better, liquid capital) to absorb losses and provide a cushion to keep the company afloat?

### Cash flow: Is It Still King?

For the most part, balance sheets help companies ward off risks, but cash flow is still king, because earnings are why companies exist and cash flow permits payouts to debt-holders and investors.

Sustainable, high-probability cash flow is a goal that emanates from sustainable profitability. Analysts must ask themselves whether the company's operations can generate predictable, stable cash flows, even during downturns or when unanticipated risks arise.

Risk managers learned from past events that financial analysis must look for cash traps or stumbling blocks or any weaknesses or factors that might threaten cash-flow stability. In some cases, the company might report earnings, but cash generated from operations can't get to where it needs to be (to parent companies or other operating subsidiaries). That might result from:

- Limited access to cash from unconsolidated or foreign subsidiaries,
- Limited access to cash from regulated subsidiaries,
- Cash sent from one affiliate to support activities or deficits in another,
- Cash subject to unexpected tax treatments or other penalties, and
- Cash necessary for unplanned capital expenditures.

Just as the balance sheet should be stressed and tested for worst-case scenarios, so should an analysis of cash flows, from the past and projected going forward: **How are cash flows affected by extreme risks?** The exercise should not be perfunctory. Analysts must sensitize cash flows from operations for many realistic scenarios:

- No-growth business case,
- Conservative, declining business case,

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3. Unexpected escalation of certain costs (raw materials, interest rates, etc.), and
4. Unexpected payouts for emergencies, disasters, contingencies, or legal action

Sometimes there is a tendency to dismiss sensitivity analyses as unreal, unlikely cases. Recent crisis events show they can and do happen. Analysts, therefore, should determine the impact on cash flow in these cases or assess what the company is doing to minimize their impact on operations.

### Off-Balance-Sheet Risks: Trouble Lurking Beneath

Analysts often forget to assess adequately off-balance-sheet risks, because the risks (a) are sometimes cryptically described in detailed footnotes, (b) are sometimes reported in an inconsistent way and at the discretion of the company, (c) are hard to measure, quantify or understand, or (d) have probabilities of occurring that are mere guesses.

In worst cases, however, many of those same risks all of a sudden appear on the balance sheet as real liabilities. Analysts should never shrug them off. Instead they should strive to understand what they are or request the company to explain them as thoroughly as possible.

Off-balance-sheet risks can range from financial risks to legal risks. They include pending legal action, unexpected environment costs, forward financial transactions, pension obligations, uncertain contractual commitments, or third-party guarantees. Recognizing the risks are real, analysts should:

1. Identify and prioritize the most significant of these risks, based on probability or immediacy of impact,
2. Request from companies more disclosures if the reporting is inadequate or difficult to interpret,
3. Determine how the same risks would appear on the balance sheet when the risks are realized,
4. Quantify as best as possible what the risks are or what the potential loss would be, and

5. Measure the impact of the same risks and potential losses on income statements, cash flows and balance sheets (capital cushion)

### Borrowings: Getting Paid Back

For risk managers, analysis ultimately comes down to the company's ability to meet obligations: Pay interest or amortize debt; meet obligations arising from other bank-related activity (trading, funds transfer, securities processing, etc.).

Here is where the analyst starts to aggregate other parts of the analysis. **From lessons of the past, the analyst should ask:**

1. Can the company fulfill obligations from primary sources: cash flow from operations, cash reserves, or other liquid assets?
2. Can the company avoid relying on secondary sources: sales of fixed assets, refinancing, new capital, etc.?
3. What are the significant threats and risks to both primary and secondary sources? How would they affect the paydown of debt in the short- and long-term? What is the company doing to avoid such scenarios?
4. Will new debt be necessary for the company to achieve planned growth? Will cash from primary sources be sufficient to manage the new debt? Or must it rely, too, on new sources?

### Market-Based Indicators: How Meaningful?

In risk analysis, there is nothing wrong with using market-based models and indicators. They include, for example, a company's stock quotes or prices in credit-default swaps. They are reactive, up-to-the-minute measurements of a company's creditworthiness. They also include models based on bond-market prices and credit spreads and models based on translating a company's equity value into an assessment of its ability to meet debt payments.

At their best, they send warning signals or reminders that a company or companies in an industry group require attention. They tap you on the

shoulder to alert you that something might be wrong. And they suggest that more than a few people in the marketplace might have cause for some degree of concern.

At their worst, they garner too much attention, as herds of risk managers respond to the indicator instead of the company or the situation. And overwhelming response spawns panic or creates an avalanche of reactive behavior. In the summer, 2008, market participants and risk managers watched credit-default-swaps market activity and pricing trends for financial institutions hourly, observed signals of weakness, but couldn't necessarily pinpoint the triggers of weakness.

Market models and indicators are useful, if they:

1. Are understood and use variables, factors or influences that are readily measured and explained,
2. Are intended to be signals for possible decline and tools to suggest reasonable, courses of action might be necessary (updated company review, risk-rating review, exposure reviews, or discussions with the company), and
3. Are not substitutes for rational decision-making and in-depth analytical scrutiny

Post-crisis, for risk managers and financial analysts, a revised approach to credit models and financial analysis is to acknowledge extreme risks, worst cases, and prolonged downturns. They can and do occur, and companies and counterparties should show they are financially and operationally prepared.

Forward-looking financial analysts should take initiatives to update their approaches, techniques, ratios and models. More than ever, the models, like sleuths, should look for hidden risks, anticipate worst cases, and assess carefully whether those companies are prepared to withstand what most will say might not ever occur.

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