

THE ESSENTIALS OF RISK MANAGEMENT

Third Edition (EoRM3)

ONLINE CONTENT FOR CHAPTER 1

Box 1A-1, Box 1A-2, Box 1A-3, Box 1A-4 [Updated] of EoRM2

From pp. 28–29 of *The Essentials of Risk Management, Second Edition* (EoRM2)

BOX 1A-1

CREDIT DERIVATIVES AND THE ISDA DEFINITION OF A CREDIT EVENT

The spectacular growth of the market for credit default swaps (CDSs) and similar instruments since the millennium has obliged the financial markets to become a lot more specific about what they regard as a credit event—that is, the event that triggers the payment on a CDS. This event, usually a default, needed to be clearly defined to avoid any litigation when the contract is settled. CDSs normally contain a “materiality clause” requiring that the change in credit status be validated by third-party evidence.

The CDS market has struggled somewhat to define the kind of credit event that should trigger a payout under a credit derivatives contract. Major credit events as stipulated in CDS documentation, and formalized by the International Swaps and Derivatives Association (ISDA) are:

- Bankruptcy, insolvency, or payment default
- Obligation/cross default, which means the occurrence of a default (other than failure to make a payment) on any other similar obligation
- Obligation acceleration, which refers to the situation where debt becomes due and repayable prior to maturity (subject to a materiality threshold of \$10 million unless otherwise stated)
- Stipulated fall in the price of the underlying asset
- Downgrade in the rating of the issuer of the underlying asset
- Restructuring (this is probably the most controversial credit event)
- Repudiation/moratorium: this can occur in two situations: First, the reference entity (the obligor of the underlying bond or loan issue) refuses to honor its obligations. Second, a company could be prevented from making a payment because of a sovereign debt moratorium (e.g., City of Moscow in 1998).

One of the most controversial aspects of the debate is whether the restructuring of a loan—which can include changes such as an agreed reduction in interest and principal, postponement of payments, or change in the currencies of payment—should count as a credit event. The Con-seco case famously highlighted the problems that restructuring can cause. Back in October 2000,

a group of banks led by Bank of America and Chase granted to Consec a three-month extension of the maturity of a short-term loan for approximately \$2.8 billion, while simultaneously increasing the coupon and enhancing the covenant protection. The extension of credit might have helped prevent an immediate bankruptcy, but as a significant credit event it also triggered potential payouts on as much as \$2 billion of CDSs.*

In May 2001, following this episode, ISDA issued a Restructuring Supplement to its 1999 definitions concerning credit derivative contractual terminology. Among other things, this document requires that to qualify as a credit event, a restructuring event must occur to an obligation that has at least three holders, and that at least two-thirds of the holders must agree to the restructuring. The ISDA document also imposes a maturity limitation on deliverables—the protection buyer can only deliver securities with a maturity of less than 30 months following the restructuring date or the extended maturity of the restructured loan—and it requires that the delivered security be fully transferable. Some key players in the market dropped restructuring from their list of credit events. See also discussion in Chapter 12 of EoRM2.

* The original sellers of the CDSs were not happy, and were annoyed further when the CDS buyers seemed to play the “cheapest to deliver” game by delivering long-dated bonds instead of the restructured loans; at the time, these bonds were trading significantly lower than the restructured bank loans. (The restructured loans traded at a higher price in the secondary market due to the new credit-mitigation features.)

From pp. 33–35 of *The Essentials of Risk Management, Second Edition* (EoRM2)

BOX 1A-2

VALUATION PROBLEMS IN A MARKED-TO-MARKET WORLD IN TIMES OF LOW LIQUIDITY

Financial instruments are held in the:

- “Trading book,” where they are measured at fair value through profit and loss or
- “Banking book” as assets available for sale (AFS), where they are subject to amortized cost accounting (also referred to as accrual accounting)

Any change in the fair value of a trading book instrument has a direct impact on a firm’s income statement in the period in which the change occurs. Changes in the fair value of financial assets classified as AFS are recorded directly in equity without affecting profit and loss until the financial assets are sold, at which point the cumulative change in fair value is charged or credited to the income statement.

In contrast, unless held for sale, loans are typically measured at amortized cost using the effective interest method, less “allowance” or “provision” for impairment losses. Loans held for sale may be reported in trading or AFS portfolios, or, in the United States, held in for sale portfolios at the lower of cost or fair value.

Instruments subject to fair value accounting are valued with reference to prices obtained from active markets, when these are available for identical or similar instruments. When market

liquidity dries up (e.g., during a market crisis), price discovery based on market prices becomes much more difficult. Other valuation techniques may become necessary, such as applying a model to estimate a value.* Where liquid market prices are unavailable, other approaches inevitably carry with them a range of uncertainties and can give a false impression of precision.

Fair value/mark-to-market accounting has generally proven highly valuable in promoting transparency and market discipline and is an effective and reliable accounting method for securities in liquid markets. However, it can create serious, self-reinforcing challenges that make valuation more difficult and increase uncertainties around those valuations, when there is no or severely limited liquidity in secondary markets. Three main criticisms of fair value accounting have been expressed:†

- First, unrealized losses recognized under fair value accounting may reverse over time. Market prices may deviate from fundamental values because of market illiquidity or because prices are bubble prices.
- Second, market illiquidity may render fair values difficult to measure, yielding overstated and unreliable reported losses.
- Third, firms reporting unrealized losses under fair value accounting may trigger unhelpful feedback effects—that is, trigger further deterioration of market prices through the destabilizing downward spiral of forced liquidations, writedowns, and higher risk and liquidity premia.

* The accounting standard for fair value (FAS 157) creates a hierarchy of inputs into fair value measurements, from most to least reliable:

- Level 1 inputs are unadjusted quoted market prices in active liquid markets for identical products.
- Level 2 inputs are other directly or indirectly observable market data. There are two broad subclasses of these inputs. The first and generally preferable subclass is quoted market prices in active markets for similar instruments. The second subclass is other observable market inputs such as yield curves, exchange rates, empirical correlations, and so on. These inputs yield mark-to-model measurements that are disciplined by market information, but that can only be as reliable as the models and the inputs that have been employed.
- Level 3 inputs are unobservable, firm-supplied estimates, such as forecasts of home price depreciation and the resulting severity of credit losses on mortgage-related positions.

† Looking at the pros and cons of fair value accounting, fair value accounting still seems better than the alternative of accrual accounting. Accrual accounting suppresses the reporting of losses and reduces the incentives for voluntary disclosure. This means that it can discourage the actions that may be necessary to resolve a crisis. The savings and loan crisis in the United States provides the best illustration. The crisis began when interest rates rose during the first oil crisis/recession in 1973–1975, causing thrifts' fixed mortgage assets to experience large economic losses that were not recognized under amortized cost accounting. This non-recognition of economic losses allowed bank regulators and policy makers to permit the crisis to continue for 15 years, effectively encouraging thrifts to invest in risky assets, exploit deposit insurance, and, in some cases, even commit fraud—activities that significantly worsened the ultimate cost of the crisis.

From pp. 36–37 of *The Essentials of Risk Management, Second Edition (EoRM2)*

BOX 1A-3

NONBANKING EXAMPLE OF BUSINESS RISK: HOW PALM TUMBLED FROM HIGH-TECH STARDOM

Palm was a pioneer in “handheld computers” in the early 1990s. In December 2000 annual sales were up 165 percent from the previous year. In March 2001 the first sign of slowing sales hit the firm. The top management of Palm decided that the appropriate response was to quickly launch their newest model of hand-held computers, the m500 line.

The CEO, Carl Yankowski, received assurances from his management that the m500 line could be out in two weeks. Palm unveiled the m500 line on March 19. Sales of Palm’s existing devices slowed further as customers decided to wait for the new model. The problem was that the waiting time wasn’t two weeks. Palm didn’t leave enough time for the testing of the m500 before sending the design to be manufactured. Production of the m500 line kept hitting snags. Palm wasn’t able to ship the new model in volume until May, more than six weeks after the announcement.

Inventory of the older product began to pile up, leading to a huge \$300 million write-off of excess inventory, and a net loss of \$392 million for the fiscal quarter ended June 1, compared with a profit of \$12.4 million a year earlier. The firm’s stock price plummeted and, as a consequence, an acquisition that was key to Palm’s strategy collapsed—the deal was for \$264 million in Palm’s stock. The company cut 250 workers, lost key employees, and halted the construction of new headquarters.

Palm’s rivals such as RIM (Blackberry) and Microsoft increased their efforts to capitalize on Palm’s mistakes.

From pp. 38–39 of *The Essentials of Risk Management, Second Edition (EoRM2)*

BOX 1A-4 [UPDATED]

NONBANKING EXAMPLE OF STRATEGIC RISK: HOW NOKIA, CHASING THE TOP END OF THE MARKET, GOT HIT IN THE MIDDLE TWICE

Nokia was the world’s leading mobile phone company but lost it all by the end of 2013. In particular, Nokia sold half of all the smartphones in the world, while Apple’s iPhone had a 5 percent share of the global market by the end of 2007. Many case studies and academic papers have pointed to a pervasive bureaucracy leading to destructive internal competition and a strategic failure to realize the importance of lifestyle products like the iPhone.* We examine Nokia’s strategic mistakes in two parts as follows:

* Yves Doz, INSEAD Emeritus Professor of Strategic Management, “The Strategic Decisions that caused Nokia’s Failure,” Daedalus Trust, Nov 2017 See <http://www.daedalustrust.com/the-strategic-decisions-that-caused-nokias-failure-2017/>.

Part 1: First Strategic Mistake

In 1999 Nokia launched a huge and costly effort to explore the new market for cell phones that allowed users to get on the Internet, watch movies, and play video games. Nokia spent hundreds of millions of dollars launching a string of “smartphones,” allocating 80 percent of its research and development budget (\$3.6 billion a year) to software, much of it designed to give phones computer-like capabilities. Nokia was also racing to thwart the threat of Microsoft coming “first to market” with similar software for smartphones (which would set the standards for this new market).

Retrospectively, it appears that Nokia focused on the wrong battle and picked the wrong competitor to worry about. Smartphones proved too bulky and too expensive for many consumers, and remained (at the time) a tiny presence in the market.

Moreover, in concentrating on smartphones, Nokia neglected one of the hottest growth sectors in cell phones—that is, cheaper midrange models with sharp color screens and cameras—giving competitors, such as Samsung Electronics and archrival Motorola, a rare opportunity to steal market share. The bet that phones would one day converge with computers was premature.

Nokia’s global market share plunged to 29 percent from 35 percent by mid-2003. In 2003, Nokia sold 5.5 million smartphones, far short of Nokia’s target of 10 million. In the first quarter of 2004, Nokia’s sales fell 2 percent in a global cellphone market that grew 40 percent from the year before, as measured by the number of units sold.

Part 2: Second Strategic Mistake

In the half-dozen years leading up to 2013, Nokia failed to successfully adjust its strategy to capitalize on the smartphone revolution. The firm faced significant competition in the smartphone market, including Apple and competitors that have adopted Google’s Android. Ironically, given Nokia’s earlier concern that Microsoft would introduce first-to-market software for smartphones, Nokia’s strategy in early 2013 was to deploy Microsoft Windows (in lieu of their own Symbian operating system) in order to make their product more attractive. Nokia had extensive cash holdings, significant strategic value, and patents that could potentially be worth billions. However, Nokia destroyed significant shareholder value: the market value of Nokia declined 90 percent from 2007 to the end of 2013 while its credit rating had been downgraded to junk status. In September 2013, Nokia announced the sale of its mobile and devices division to Microsoft.

Microsoft Mobile became the successor to Nokia’s mobile devices division after the sale was completed in April 2014. The purchased assets from Nokia were eventually written off by Microsoft in 2015. After the sale of its mobile device division, Nokia focused on network equipment through Nokia Networks, which is currently Nokia Corporation’s largest division.*

* [Updated] As the third edition of this book went to press, Nokia Networks operates in 130 countries and provides wireless and fixed network infrastructure, communications, and network service platforms and professional services to operators and service providers.