

Notes

Introduction

1. Bank for International Settlements, *81st Annual Report*, Basel, June 26, 2011.

1. Basel III: An Overview and a Warning

1. *The Economist*, May 14, 2011.
2. Originally, this concept was known as *precommitment*, but the term was dropped because some central bankers objected to it.
3. When properly used, mathematical artifacts are powerful tools. But they are also a double-edged sword.
4. As an excuse, many banks said that it was not their executives and risk managers who abused the system but the 'models'. In reality, financial models of the riskiness of loans failed because their developers based them on data gathered in an unusually benign economic climate. The excuse that is now being used speaks volumes about the *model illiteracy* of those who have commissioned them.
5. *The Economist*, May 14, 2011.
6. D. N. Chorafas, *IT Auditing and Sarbanes-Oxley Compliance*, Auerbach/CRC, New York, 2009.
7. *Financial Times*, July 22, 2011. Barney Frank is a member of the US House of Representatives and former chairman of the House Financial Services Committee, 2007–11.
8. *The Economist*, July 16, 2011.
9. D. N. Chorafas, *Risk Pricing*, Harriman House, London, 2010.
10. The term generally appears in connection with 'sovereign debt', but its bearing is much larger, ranging from sovereign policy such as quantitative easing (QE) to the existence and authority of an independent – therefore *sovereign* – state.
11. David Packard, *The HP Way: How Bill Hewlett and I Built Our Company*, Harper Business, New York, 1995.
12. Jean-Pierre Soisson, *Charles Quint*, Grasset, Paris, 2000.
13. *Financial Times*, July 22, 2011.
14. Above the minimum requirement of 7 percent.
15. Basel Committee on Banking Supervision, *Resolution Policies and Frameworks – Progress So Far*, BIS, Basel, July 2011. The same Basel document also states that if the biggest banks continue to take on risk they could be hit with an even higher charge of 3.5 percent.
16. The terms *metrics* is broader than 'measurements' deliberately used because it denotes not only measured quantities but also the process of measuring and decision lying behind it.
17. *Financial Times*, July 2, 2011.
18. Chaired by John Vickers.
19. CRD4 will become European Union law after approval by the European Council and European Parliament.

20. The majority of people who know and use statistics have learned to think in terms of a normal distribution where 99.7% of measurements, or events, lie between 'plus' or 'minus' three standard deviations from the mean. Whatever falls outside is an *outlier*, a term which has a much wider connotation.

2. Finance and Banking Are Time and Motion Machines

1. D. N. Chorafas, *Economic Capital Allocation with Basel II: Cost and Benefit Analysis*, Butterworth-Heinemann, London/Boston MA, 2004; and D. N. Chorafas, *Operational Risk Control with Basle II: Basic Principles and Capital Requirements*, Butterworth-Heinemann, London/Boston, MA, 2004.
2. *Bloomberg News*, March 10, 2011.
3. *Ibid.*
4. William Greider, *Secrets of the Temple*, Touchstone/Simon & Schuster, New York, 1987.
5. In some countries, the USA and the Federal Reserve being a prime example, the central bank's charter requires it to pursue both financial stability and full employment – which are contradictory goals.
6. One of the worst government scandals of 2010 took place inside the city of Bell, one of the tiniest local governments. Bell is a blue-collar neighborhood within the vast conglomeration of Los Angeles, whose city elders (eight of whom are now awaiting trial) paid themselves outrageous pensions and salaries of up to US\$800,000 a year, thus robbing residents in countless innovative but unethical ways (*The Economist*, November 20, 2010).
7. *Financial Times*, February 21, 2011.
8. Ronald Reagan had famously said that the worst sentence in the English language is, 'I come from the government and I am here to help.'
9. D. N. Chorafas, *Managing Risk in the New Economy*, New York Institute of Finance, New York, 2001.
10. Real estate values have been both at the origin and in the sequel of the crisis.
11. D. N. Chorafas, *Risk Pricing*, Harriman House, London, 2010.
12. As of mid-December 2010, Picard had reportedly recovered US\$2.5 billion, which suggests that some parties would rather pay and keep their secrets.
13. Ironically, this coincided with the second anniversary of Madoff's 2008 arrest.
14. For example, HSBC hired KPMG to do full-scale diligence examination of Madoff's operation after it bought the Bank of Bermuda, which served as the custodian for a series of billion-dollar 'feeder' funds.
15. *The Economist*, December 18, 2010.
16. *Ibid.*
17. Jean-Pierre Soisson, *Charles Quint*, Grasset, Paris, 2000.
18. John Lanchester, *IOU: Why Everyone Owes and No One Can Pay*, Simon & Schuster, New York, 2010.
19. In a derivative financial instrument the *underlying* may be a specified commodity price, share price, interest rate, currency exchange rate, index of prices, or something else properly identified by the transaction. Typically, though not always, the relationship prevailing between the underlying and the derivative is not linear (see D. N. Chorafas, *Derivative Financial Instruments*, McGraw-Hill, New York, 2008).
20. Statistics by *Financial Times*, December 17, 2010.
21. D. N. Chorafas, *Financial Boom and Gloom: The Credit and Banking Crisis of 2007–2009 and Beyond*, Palgrave Macmillan, Basingstoke, 2009.

22. Barings' operation in Singapore had followed a similar policy. Barings crashed.
23. Largely thanks to Bill Clinton and George W. Bush, the latter conceivably being the worst president in American history (so far) – unless Barack Obama overtakes him.
24. *The Economist*, June 13, 2009.
25. *Financial Times*, September 30, 2010.
26. Procter & Gamble, one of the most solid companies in the Dow Jones, lost 37 percent of its value before recovering.
27. CNBC, October 1, 2010. Allegedly the basic reason which turned the model on its head was a sloppily executed sell order of one mutual fund group (reportedly Waddell & Reed), when the market was already jittery because of economic turmoil in Europe.
28. Nathan Miller, *F.D.R.*, New American Library, New York, 1983.
29. Gates and his company were fully entitled to pay what allegedly was greenmail, even if this refusal was against the embedded interests of the political machine.
30. The most recent financial regulation in the USA, also known as the Dodd–Frank Act.
31. D. N. Chorafas, *Sovereign Debt Crisis and the New Normal*, Palgrave Macmillan, Basingstoke, 2011.
32. *Financial Times*, May 17, 2010.
33. In America, the Dodd–Frank bill did succeed in reminding the banks of their responsibilities to retail clients through provisions for consumer protection, but though a popular theme this was watered down by lobbyists.
34. *The Economist*, March 12, 2011.
35. *Ibid.*
36. *The Economist*, February 26, 2011.

3 Global Banking and Systemic Risk

1. And, according to some accounts, it flourished particularly in the second millennium BC.
2. *The Economist*, August 7, 2010.
3. D. N. Chorafas, *Globalization's Limits: Conflicting National Interests in Trade and Finance*, Gower, London, 2009.
4. The letter of credit, for example, was invented in medieval times in conjunction with trade fairs in Lyon.
5. For example, through the Black–Scholes option pricing algorithm for derivatives.
6. Douglas Porch, *The French Secret Service*, Macmillan, London, 1996.
7. European Central Bank, *Financial Stability Review*, June 2011.
8. *The Economist*, January 15, 2011.
9. See Chapter 1, in the section on dark pools, special purpose vehicles and flash crash.
10. D. N. Chorafas, *Energy, Natural Resources and Business Competitiveness in the EU*, Gower, London, 2011.
11. Based on a scenario in which the non-OECD countries' share of world trade and global GDP is kept constant.
12. *EIR (Executive Intelligence Review)*, January 1, 1997.
13. The *risk of contagion* starts as an idiosyncratic problem that becomes more widespread as the reasons for financial imbalances and other negative factors persist and accumulate.

14. D. N. Chorafas, *Globalization's Limits: Conflicting National Interests in Trade and Finance*, Gower, London, 2009.
15. As contrasted with the more classical multinationals, which concentrated on manufacturing and trade.
16. A bank typically holds only limited cash reserves, since normally only a small proportion of its accounts are closed on any given day. As a result of a sudden demand for account closures, the bank finds itself in payment difficulties and is forced to raise money instantly from other banks and from its creditors in order to serve its customers.
17. BIS, *79th Annual Report*, Basel, June 29, 2009.
18. Also called regulatory capital arbitrage.
19. D. N. Chorafas, *Rocket Scientists in Banking*, Lafferty Publications, London/Dublin, 1995; and D. N. Chorafas, *Stress Testing: Risk Management Strategies for Extreme Events*, Euromoney, London, 2003.
20. DTAs were a Ponzi game, but nobody was punished for it.
21. *Bloomberg News*, March 18, 2011.
22. Basel has not yet clearly decided how to handle these perpetuals in the confines of Basel III. One of the opinions is that in the first year they should be reduced in terms of value in Tier 1 by 10 percent.
23. But included an option to stop coupon payments to investors.
24. D. N. Chorafas, *Financial Boom and Gloom: The Credit and Banking Crisis of 2007–2009 and Beyond*, Palgrave Macmillan, Basingstoke, 2009.
25. Which evidently contrasted with the hype that these were Tier 1 capital, but nobody seems to have noticed.
26. Which a disgusted Irish citizen wrote on his big cement truck which, in mid-2010, he drove up the steps of the Irish parliament.
27. *The Economist*, November 27, 2010.
28. D. N. Chorafas, *Modelling the Survival of Financial and Industrial Enterprises: Advantages, Challenges, and Problems with the Internal Rating-Based (IRB) Method*, Palgrave Macmillan, Basingstoke, 2002.
29. Rather than using them to control their exposure.
30. D. N. Chorafas, *The 1996 Market Risk Amendment: Understanding the Marking-to-Model and Value-at-Risk*, McGraw-Hill, Burr Ridge, IL, 1998.
31. *The Economist*, February 21, 2004.
32. D. N. Chorafas, *Sovereign Debt Crisis: The New Normal and the New Poor*, Palgrave Macmillan, Basingstoke, 2009.
33. *The Economist*, October 24, 2009.

4 Basel III Is a Grand Compromise, Not a Bold Initiative

1. The RFC was established in 1932 by the Fed to channel US\$1.5 billion of taxpayers money into the banking system. US\$1.5bn was big money at the time. Ten years later, the cost of the Manhattan Project was US\$2 billion, and was considered to be a large amount.
2. The Basel Committee represents 27 countries and regions, including the UK, China, France, Germany, the Netherlands, Japan, Sweden, Switzerland and the USA.
3. Which was supposed to be a significant improvement over Basel I, but became subject to extensive regulatory arbitrage.
4. CoCo structures so far available are Lloyds' enhanced convertible notes (ECNs) and Rabobank's senior contingent note (SCN).

5. Crédit Suisse may issue as much as US\$30 billion in CoCos over several years to replace a portfolio of hybrid securities that will no longer qualify as capital under Basel III rules.
6. *Bloomberg News*, February 12, 2011.
7. Also, if a conversion takes place, this is likely to be interpreted by the market as a crisis signal, thus increasing market pressure on a given institution.
8. Basel II specified 8 percent capital adequacy for international banks and 4 percent for local or national, but the dichotomy was different than the one this paragraph suggests.
9. *Financial Stability Review*, Deutsche Bundesbank, November 2010.
10. D. N. Chorafas, *Sovereign Debt Crisis and the New Normal*, Palgrave Macmillan, Basingstoke, 2011.
11. GAAP and IFRS have significant differences, but there are other standards as well as IFRS versions. The French, for example, have one that is not totally compatible with what the IASB has designed. D. N. Chorafas, *IFRS, Fair Value and Corporate Governance: Its Impact on Budgets, Balance Sheets and Management Accounts*, Butterworth-Heinemann, London/Boston, 2005.
12. D. N. Chorafas, *IFRS, Fair Value and Corporate Governance: Its Impact on Budgets, Balance Sheets and Management Accounts*, Butterworth-Heinemann, London/Boston, 2005.
13. Europeans are divided on the question of whether to tax banks to pay for future financial rescues.
14. This chapter was released on January 11, 2011.
15. *Financial Times*, January 11, 2011.
16. *International Herald Tribune*, December 18, 2009.
17. Asian credit institutions also have problems with Tier 1 and Tier 2 capital.
18. This could be decided on a discretionary basis by a public authority, or be subject to certain rules. For example, according to how much a set capital ratio is being undershot, or by the level of the bank's equity prices.
19. Rules credited to Puggy Pearson, who dropped out of school at 11 but won the World Series of Poker in 1973.
20. For instance, including losses occurred over the last five years by an acquired company, provided the acquiring company has recorded taxable benefits in its financial statements – or vice versa.
21. *International Herald Tribune*, October 26, 1995.
22. *Financial Times*, August 24, 2010.
23. Bank of America Merrill Lynch, *French Banks*, January 29, 2010.

5 Is It Possible to Regulate a Global Financial Market in Perpetual Change?

1. Isidor F. Stone, *The Trial of Socrates*, Little, Brown, Boston, 1988.
2. The term hedging is itself a misnomer, typically chosen to give confidence but without considering that hedges have a nasty habit of becoming asymmetric. See D. N. Chorafas, *IFRS, Fair Value and Corporate Governance: Its Impact on Budgets, Balance Sheets and Management Accounts*, Butterworth-Heinemann, London/Boston, 2005.
3. The crucial question is: can the institution afford the risks it is taking, without going cap-in-hand to the government for taxpayers' money?
4. *Bloomberg News*, February 11, 2011.

5. D. N. Chorafas, *Sovereign Debt Crisis and the New Normal*, Palgrave Macmillan, Basingstoke, 2011.
6. And not with precision, which hides the grand design by being too specific.
7. D. N. Chorafas, *Risk Pricing*, Harriman House, London, 2010.
8. Widely known as *Città Salaris*, the complete title of this small and powerful look is *La Città del Sole e Poesie*. First published in the mid-sixteenth century. Recent edition by Feltrinelli, Milano, 1962.
9. Like the big global banks did, both individually and by establishing the Institute of International Finance (IFF) in Washington, DC.
10. Back in the late 1980s, in his lectures at ETH Zürich, Professor Wirth used to say: 'Today, programming in COBOL is a criminal offense!' Cobol was then a 30-year-old obsolete 'language'. Think of programming in COBOL in the twenty-first century, when knowledge engineering can do the job at much lower cost, offer higher performance and in a fraction of the time.
11. Forget Madoff. As far as falling into the law's catchment area, he was an exception, and paid the price for himself and for all the others.
12. With elected separate domiciles in Paris, London and Frankfurt, respectively.
13. The centralized Five-Year Plan initiated by Stalin in 1928.
14. David E. Hoffman, *The Oligarchs*, Public Affairs, New York, 2002.
15. Ibid.
16. Basel Committee, *Implementation of Basel II: Practical Considerations*, BIS, July 2004.
17. D. N. Chorafas, *Economic Capital Allocation with Basel II: Cost and Benefit Analysis*, Butterworth-Heinemann, London/Boston, 2004.
18. Inaugural address, January 20, 1953.
19. *The Economist*, March 27, 2010.
20. *Financial Times*, September 28, 2009.
21. The European Union's directive, which includes market discipline.
22. A similar reason complicates the application of indicators based on observed market prices.
23. D. N. Chorafas, *Energy, Natural Resources and Business Competitiveness in the EU*, Gower, London, 2011.
24. The relationship between the compliance function and internal audit is addressed by several jurisdictions, but there are no general rules on how to go about it (Basel Committee on Banking Supervision, *Implementation of the Compliance Principles*, August 2008).

6 Capital Adequacy and Liquidity: the Devil Is in Their Detail

1. An example is provided by the contagion effects following the collapse of the investment bank Lehman Brothers and the impact this had on other banks as well as on the global economy.
2. Milton Friedman, *Dollars and Deficits*, Prentice-Hall, Englewood Cliffs, NJ, 1968.
3. *The Economist*, October 30, 2010.
4. That is the classical bank practice of taking in deposits and lending most of them out in the form of riskier and longer-term loans.
5. *Financial Times*, December 17, 2010.
6. *Bloomberg News*, October 4, 2010.
7. European Central Bank, *Annual Report 2002*.
8. Some regulators are much more prudent than others. The People's Bank of China (PBOC) raised reserve requirements on banks six times during 2010, obliging

- them to set aside 18.5 percent of their deposits, which was a record ratio (*The Economist*, January 8, 2011).
9. 'I said Yalta, not Malta,' Stalin cabled to Churchill and Roosevelt when the two Western political leaders met in Malta to get ready for the coming meeting. And they went to Yalta.
 10. The capital components under Basel II were: common equity, retained earnings, minority interests, some preference shares, and deductions.
 11. Basel Committee on Banking Supervision, *An Assessment of the Long-Term Economic Impact of Stronger Capital and Liquidity Requirements*, BIS, Basel, August 2010.
 12. Basel Committee on Banking Supervision, *International Framework for Liquidity Risk Management, Standards and Monitoring*, BIS, Basel, December 2009.
 13. From January 1, 2018, banks must also meet the medium-term funding metrics: the Net Stable Funding Ratio (NSFR), the objective of which is to ensure that there are no inappropriate maturity mismatches between assets and liabilities over a one-year horizon.
 14. Still, the Basel Committee eased its definition of how severe the outflows in such a crisis would be. It also allowed banks to count high-quality corporate bonds in addition to cash and government bonds.
 15. European Central Bank, *Financial Stability Review*, December 2010.
 16. Many banks do not seem to know the precise rules that govern payments connected to hybrid securities.
 17. *Financial Times*, April 12, 2010.
 18. As if this were not enough, the Bank of America projected that additional claims from other investors against loans sold by Countrywide could total between US\$7 billion and US\$10 billion.
 19. *The Economist*, January 23, 2010.
 20. Bank of America Merrill Lynch, *Weekly Strategy Insights*, October 12, 2009.
 21. D. N. Chorafas, *Financial Boom and Gloom: The Credit and Banking Crisis of 2007–9 and Beyond*, Palgrave Macmillan, Basingstoke, 2009.
 22. The Geneva Association, *Progress*, No. 48, December 2008.
 23. *The Economist*, January 24, 2009.
 24. And sank both Fannie Mae and Freddie Mac.
 25. E&Y says that it followed the rules laid down by FASB. FAS 140 allowed it to certify Repo 105 as it did. But in March 2010, a report into Lehman's bankruptcy by a court-appointed examiner stated that while E&Y had become 'comfortable' with Lehman's use of Repo 105 it did not examine the extent to which the investment bank used it to manicure its reported figures (*The Economist*, January 1, 2011).

7 Home–Host Issues Haunt Bankers and Regulators

1. Basel Committee, *Resolution Policies and Frameworks – Progress So Far*, BIS, Basel, July 2011.
2. D. N. Chorafas, *Globalization's Limits: Conflicting National Interests in Trade and Finance*, Gower, London, 2009.
3. The underlying assets were mainly collateralized debt obligations (CDOs) issued by other institutions. A settlement announced on March 28, 2011 provided most of the retail investors with a 70 percent to 93 percent recovery rate on their initial investment with an additional payment pushing the recovery up to 85 percent to 96.5 percent. *The Economist*, April 2, 2011.
4. Located on both sides of the state border, Calumet provided 'swing-door' protection to the underworld. When the Illinois police descended on the western part

of the city, gangs, prostitutes and traffickers just crossed the border into Indiana, and they did precisely the opposite when the Indiana police began to get active in the eastern half of the city – but only up to the border. It is curious that these two police departments never worked in unison.

5. *Bloomberg News*, January 29, 2011.
6. Who in the past had been no particular friend of marking to market.
7. *Financial Times*, March 21, 2011.
8. But did not seem to deny relationship lending.
9. *Financial Times*, February 6, 2008.
10. Statistics by *Financial Times*, February 14, 2009.
11. Nathan Miller, *F.D.R.: An Intimate History*, New American Library, New York, 1983.
12. Basel Committee, *Resolution Policies and Frameworks – Progress So Far*, BIS, Basel, July 2011.
13. D. N. Chorafas, *Sovereign Debt Crisis, the New Normal and the New Poor*, Palgrave Macmillan, Basingstoke, 2011.
14. ECB, *Monthly Bulletin*, October 2003.
15. *Financial Times*, March 21, 2011. More than one in four investors cited the risk of a sharp slowdown in Chinese economic growth as the biggest threat to markets, outstripping fears about political upheaval in the Middle East and North Africa.
16. The Zero fighters, the most feared of Japanese planes, were originally designed by Howard Hughes, rejected by the US military, but copied and manufactured by the Japanese.
17. Richard P. Feynman, *Adventures of a Curious Character*, W. W. Norton, New York, 1985.
18. *Bloomberg News*, January 30, 2010.
19. The rules were written by US regulators after financial reform legislation passed in the Dodd–Frank Act required an overhaul of the US\$600,000 billion over-the-counter (OTC), derivatives markets.
20. *Financial Times*, December 17, 2010.
21. Done in the late 1970s by then US President Jimmy Carter.
22. *Financial Times*, January 22, 2011.
23. Tax-free reserves are legal in Switzerland but illegal in other countries; for example, in the USA, where the IRS interprets them as a way of hiding profits.
24. D. N. Chorafas, *Risk Pricing*, Harriman House, London, 2010.
25. D. N. Chorafas, *Stress Testing for Risk Control Under Basel II*, Elsevier, Oxford/Boston, MA, 2007.

8 The Concept of Risk Management Must Be Thoroughly Revamped

1. *The Complete Illustrated Lewis Carroll*, Wordsworth, Ware, Herts, 1996.
2. Dating back to the Middle Ages, when plays were performed by candlelight.
3. The currency of choice in preparing and presenting their balance sheet and income statement (P&L).
4. *The Economist*, March 5, 2011.
5. Equity prices of small-capitalization companies are more vulnerable than those of large-capitalization companies to adverse business and economic conditions.
6. There still are differences between finance, engineering, medicine and the physical sciences.
7. D. N. Chorafas, *Energy, Natural Resources and Business Competitiveness in the EU*, Gower, London, 2011.

8. Contracts for drilling units are generally fixed day rate contracts, and renegotiations or increases in operating expenditures affect their profitability adversely.
9. William Greider, *Secrets of the Temple: How the Federal Reserve Runs the Country*, Touchstone/Simon & Schuster, New York, 1987.
10. Antonio J. Ferreira, 'Family Myth and Homeostasis', *Archives of General Psychiatry*, 9: 457–63, 1963, p. 458.
11. *Financial Times*, November 17, 2008.
12. As the credit premium rises.
13. *BusinessWeek*, December 5, 1988.
14. For Greece and Ireland, the alarm bells rang at 7 percent. It was silly of Portugal to wait so much longer.
15. Therefore EVT studies should be seen as a source of information rather than a complete analysis, when assessing the overall levels of protection provided, for example, by different types of default estimates.
16. *The Economist*, January 24, 2009.
17. Something economists are now calling 'black swan fatigue'.
18. D. N. Chorafas, *Stress Testing for Risk Control Under Basel II*, Elsevier, Oxford/Boston, MA, 2007.
19. For example, in early April 2011 the European Central Bank lined up 90 banks in its jurisdiction for capital examination through stress testing.
20. *The Economist*, February 27, 2011.
21. *The Economist*, February 13, 2010.
22. This also happens with volatility estimates used in risk pricing, hence the term *volatility smile*.

9 Correlation Risk Overwhelms the Global Banking Industry

1. Each represented by a set of measurements.
2.
$$r_{AB} = \frac{S_{AB}}{S_A \cdot S_B}$$

where s_{AB} is the covariance of 'A' and 'B' and s_A and s_B , respectively, the standard deviations of set 'A' and set 'B'. The mathematical details are not part of the aim of this book. The covariance refers to the co-movement of the two variables 'A' and 'B'; for example, risks (or prices) pertaining to two different instruments which correlate.
3. Stochastic dependence may indicate that there *might be* a causal relationship, but much more research is necessary to find out whether this is true.
4. The Board of Dresdner Bank made that silly decision and it ended by wrecking the institution, whose remnants were merged into Commerzbank.
5. The master economic plan of the Soviet Union.
6. D. N. Chorafas, *Stress Testing for Risk Control Under Basel II*, Elsevier, Oxford/Boston, 2007.
7. The algorithm is:

$$CR(n) = \sum_{i=1}^n MA_i$$

where n = number of biggest banks (3, 5, 7 or 10); MA = market share in percentage points.

Source: Deutsche Bundesbank, *Monthly Report*, January 2002.

8. For example, the Herfindahl–Hirschmann Index (HHI), which is expressed through the equation:

$$\text{HHI} = \sum_{i=1}^m \text{MA}_i^2$$

where m = total number of banks in a given market. This algorithm represents the sum of squared market shares of all banks in a market. Squaring ensures that the larger shares are weighted more heavily. This approach is justified by the fact that their market weight leads to an unequal distribution of market shares.

9. See D. N. Chorafas, *Financial Models and Simulation*, Macmillan, London, 1995; and D. N. Chorafas, *Advanced Financial Analysis*, Euromoney Books, London, 1994.
10. A mean variance efficient portfolio is said to be one that cannot be outperformed by another portfolio in both risk and return. Admittedly, this is a vague notion.
11. As it did from July/August 2007 to the end of 2008/early 2009.
12. D. N. Chorafas, *Risk Pricing*, Harriman House, London, 2010.
13. The Delphi method has been used successfully with a variety of projects, originally developed (in the early 1960s) in connection with the Man-on-the-Moon project.
14. D. N. Chorafas, *Operational Risk Control with Basel II: Basic Principles and Capital Requirements*, Butterworth-Heinemann, London/Boston, 2004.
15. D. N. Chorafas, *Risk Pricing*, Harriman House, London, 2010.

10 Risk Control Requires Authority, Goals and Organization

1. *M. Pasteur: Histoire d'un Savant par un Ignorant*, J. Hetzel, Paris, 1883.
2. *Ibid.*
3. *Ibid.*
4. 'De devenir', in Louis Pasteur's words.
5. For example, solar movement is dissymmetric.
6. The emphasis in this equation is on a 'good hedge'. The problem is that – given asymmetries – it is not that easy to define it.
7. Bank of America Merrill Lynch, *Global Asset Allocation*, April 5, 2011.
8. D. N. Chorafas, *Rocket Scientists in Banking*, Lafferty Publications, London/Dublin, 1995.
9. For banks with assets over US\$1 billion, this stands at about 20 percent.
10. D. N. Chorafas, *Risk Pricing*, Harriman House, London, 2010.
11. D. N. Chorafas, *Reliable Financial Reporting and Internal Control: A Global Implementation Guide*, John Wiley, New York, 2000.
12. Named after the physicist, Werner Heisenberg.
13. That is how risk adjusted return on capital (RAROC) works.
14. *Outstanding Investor Digest*, New York, September 24, 1998.
15. Ron Chernow, *The House of Morgan*, Touchstone, New York, 1990.
16. Paul Roberts, *The End of Oil*, Bloomsbury, London, 2004.
17. The term *volatility smile* first appeared in the mid-1990s in connection with the mispricing of options and other derivative instruments. Other things being equal, the lower a financial instrument's price, the more easily it will sell. For pricing purposes, banks ask brokers for their volatility projections, and the brokers often minimize volatility risk – that is the 'smile'. Needless to say, this can be very

- costly for the banks. NatWest Markets became bankrupt because of volatility smiles.
18. Indeed, in some of these cases the bank had to pay penalties to the client because contractual investment targets were not kept.
 19. Benjamin Graham and David L. Dodd, *Security Analysis*, McGraw-Hill, New York, 1951.
 20. Which, for example, characterize IFRS.
 21. D. N. Chorafas, *Risk Pricing*, Harriman House, London, 2010.
 22. US GAAP and IFRS apply different valuation methods to different types of assets and liabilities. For example, one criterion that determines the valuation method is the intended holding period of the asset or liability. D. N. Chorafas, *IFRS, Fair Value and Corporate Governance: Its Impact on Budgets, Balance Sheets and Management Accounts*, Butterworth-Heinemann, London/Boston, MA, 2006.
 23. Fair value is the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between a willing seller and a willing buyer.

11 By Salvaging Overleveraged Banks, Sovereigns Propagate Global Systemic Risk

1. *Bloomberg News*, April 8, 2011.
2. *The Economist*, April 9, 2011.
3. Officially €80–90 billion.
4. Simon Johnson and James Kwak, *13 Bankers*, Vintage Books, New York, 2011.
5. Quite apart from the social and policy issues raised by this irresponsible action.
6. *Financial Times*, February 21, 2011.
7. Moreover, those in each repayment group must be treated equally.
8. America has put in place bail-in-like powers as part of the financial reform Dodd–Frank Act in 2010. *Financial Times*, February 21, 2011.
9. D. N. Chorafas, *Sovereign Debt Crisis, the New Normal and the New Poor*, Palgrave Macmillan, Basingstoke, 2011.
10. Together with the decision by the Bank of England not to repeat for a second time its benevolence toward Barings when, in 1995, the British merchant bank lost all its capital in derivatives gambles on the Osaka and Tokyo stock exchanges.
11. D. N. Chorafas, *Education and Employment in the European Union: The Social Cost of Business*, Gower, London, 2011.
12. D. N. Chorafas, *Sovereign Debt Crisis, the New Normal and the New Poor*, Palgrave Macmillan, Basingstoke, 2011.
13. Give or take one year.
14. *Financial Times*, March 28, 2011.
15. Which Dr Neil Jacoby, Dean of the School of Business Administration UCLA and economic advisor to President Eisenhower, taught his students.
16. *The Economist*, October 16, 2010.
17. Comparable to Tony Blair's pronouncement, while he was Britain's prime minister, that he was going to cut CO₂ levels radically by 2050.
18. Deutsche Bundesbank, Financial Stability Review, November 2010.
19. L. G. McDonald and P. Robinson, *A Colossal Failure of Common Sense*, Crown Business, New York, 2009.
20. D. N. Chorafas, *Financial Boom and Gloom: The Credit and Banking Crisis of 2007–2009 and Beyond*, Palgrave Macmillan, Basingstoke, 2009.

21. Greenspan, however, had second thoughts. As he confessed to Congress in the hearings of October 2008, bankers' behavior during the crisis had revealed a flaw in the model that defines how the world works. A flaw discovered too late.
22. D. N. Chorafas, *Risk Pricing*, Harriman House, London, 2010.
23. *EIR*, April 23, 2004.
24. D. N. Chorafas, *Sovereign Debt Crisis, the New Normal and the New Poor*, Palgrave Macmillan, Basingstoke, 2011.
25. D. N. Chorafas, *Education and Employment in the European Union: The Social Cost of Business*, Gower, London, 2010.
26. A new survey by the World Economic Forum, discussed at its 2011 annual gathering in Davos, indicated that its members see widening economic disparities as one of the two main global risks over the next decade, the other being global governance.
27. Previous attempts, such as, for example, the nineteenth-century Bank of the United States, encountered fierce opposition and failed.
28. D. N. Chorafas, *IT Auditing and Sarbanes-Oxley Compliance*, Auerbach/CRC, New York, 2009.
29. Cr dit Agricole and BNP Paribas, for example, had more than 13 percent and 12 percent of their equity, respectively, in minority hands.
30. *Financial Times*, April 28, 2010.
31. Therefore, when one is leveraged and unemployment hits, the whole family is under stress.
32. *The Economist*, February 26, 2011.
33. As of April 18, 2011. While US Treasuries still retained AAA status, their downgrade from a stable to a negative outlook was a worrying event in a nervous market. Indeed on August 12 2011, Standard & Poor's downgraded US Treasury Bills from AAA to AA+.
34. Aside from the fact that such activities should be moved on to exchanges.
35. The Geneva Association, *Progress*, no. 42, December 2010.
36. D. N. Chorafas, *Financial Boom and Gloom: The Credit and Banking Crisis of 2007–2009 and Beyond*, Palgrave Macmillan, Basingstoke, 2009.
37. Bank of America Merrill Lynch, *Weekly Strategy Insights*, October 12, 2009. In comparison, losses for subprimes/second lien were 23 percent, and for credit cards 16 percent.
38. *Financial Times*, September 22, 2010.

12 What Is the Point of Central Banks' Interventions?

1. D. N. Chorafas, *Sovereign Debt Crisis, the New Normal and the New Poor*, Palgrave Macmillan, Basingstoke, 2011.
2. Banks, too, are dependent on ECB funding. Ireland's banks are an example.
3. Milton Friedman, *Dollars and Deficits*, Prentice-Hall, Englewood Cliffs, NJ, 1968.
4. R. Christopher Whalen, *Inflated*, Wiley, New York, 2011.
5. *Ibid.*
6. CNBC, July 13, 2011.
7. R. Christopher Whalen, *Inflated*, Wiley, New York, 2011.
8. *Ibid.*
9. *The Economist*, November 27, 2010.
10. Bank of America Merrill Lynch, *The RIC Report: Shocks 1 Stocks*, March 8, 2011.
11. *Financial Times*, November 27/28, 2010.
12. Milton Friedman, *Dollars and Deficits*, Prentice-Hall, Englewood Cliffs, NJ, 1968.

13. Statistics by Deutsche Bundesbank, *Monthly Report*, March 2011.
14. In the words of Vikram Pandit, Citigroup's CEO.
15. *Deutsche Bundesbank Monthly Bulletin*, March 2011.
16. For example, attempting to guarantee full employment, as the Fed does. This, as already noted, is a contradiction.
17. Which was the original supervisory authority.
18. The product of the monetary base and the velocity of circulation of money is a jurisdiction's money supply.
19. *The Economist*, January 29, 2011.
20. While many jurisdictions today have deposit insurance schemes, these are not clones of one another. The Swiss solution, for example, is different from the American one, or that of other countries. What exists is an insurance model guaranteed not by the government but by the Swiss Bankers Association (SBA) to a maximum amount of CHF 30,000 should a bank go into liquidation. Unlike the FDIC, the SBA will collect the funds after the fact, asking banks to contribute if necessary.
21. *The Economist*, May 29, 2010.
22. Not to be confused with TAF, which stands for the Term Actions Facility by the Fed, a program launched in December 2007.
23. *Financial Times*, May 17, 2010.
24. The merged Bank of America Merrill Lynch eventually received a combined US\$45 billion.
25. *The Economist*, December 12, 2009.
26. *Financial Times*, April 12, 2010.
27. According to some opinions, the ultimate cost to the taxpayer of the banks' salvage alone may be some US\$50 billion.
28. In Obama parlance, this meant popular anger sweeping the USA against the big global banks and their wheeling and dealing.
29. The term 'Wall Street' has been enlarged to include not only institutions with home offices in lower Manhattan but all US megabanks – and why not the big global banks in all other countries?
30. Simon Johnson and James Kwak, *13 Bankers*, Vintage Books, New York, 2011.
31. David Cho, 'Banks "Too Big to Fail" Have Grown Even Bigger', *Washington Post*, August 28, 2009.
32. The RTC, and in consequence TARP, were preceded by the Reconstruction Finance Corporation (RFC), a Herbert Hoover initiative aimed at stopping the snowballing of the economic crisis in the banking industry at the end of the 1920s. Hoover argued that restoring prosperity to banks and corporations would reinvigorate the economy. RFC channeled US\$2 billion (big money at the time) to banks, railroads and insurance companies on the edge of collapse. A sister government agency, the Federal Farm Loan Bank was endowed with US\$1 billion to help farmers avoid foreclosures. At the same time, the Fed expanded the supply of credit (Nathan Miller, *F.D.R.*, New American Library, New York, 1983).
33. D. N. Chorafas, *Financial Boom and Gloom: The Credit and Banking Crisis of 2007–2009 and Beyond*, Palgrave Macmillan, Basingstoke, 2009.
34. Merrill Lynch, *Investment Strategy Update – RTC II?*, September 18, 2008.
35. Bank of America Merrill Lynch, *Situation Room: Credit Risk of the US Is Inflation*, April 18, 2011.
36. Simon Johnson and James Kwak, *13 Bankers*, Vintage Books, New York, 2011.
37. Originally the same (wrong) idea was known as the *Greenspan put*, after its inventor.
38. *The Economist*, June 19, 2004.
39. Merrill Lynch, *Bracing for the Perfect Storm*, October 3, 2005.

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