Centering the business capstone course on the banking crisis: concrete integrated pedagogy

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Abstract

The recent financial crisis offers instructors rich material for business programs regarding the relations between accounting, business law, economics, and finance, as well as ethical issues. This paper offers a concrete approach to developing a business capstone course built around the financial crisis and the lessons it offers business students. Complete pedagogical modules are offered for each discipline, including suggestions for specific assignments in each discipline.

Key Words: Capstone Course, Banking Crisis, Pedagogy

INTRODUCTION

A capstone course is essential in the business school curriculum. It provides each student the time to refresh their grasp of and to hone their ability to apply the principles, tools, and methods of the fields comprising the business curriculum. Further, it gives students the opportunity to integrate the insights of the various fields. The effectiveness of the capstone course can be enhanced by centering the capstone course on the 2008 financial crisis. All students share the common experience of the 2008 crisis's violent shaking of the economy. It immediately affected each of their pocketbooks and continues to do so today, as well as their expectations for their futures. This common experience with the financial crisis provides a rich context for framing the illustrations of the principles and the applications of the tools and methods of the various business disciplines. It also makes the course's questions, tasks, exercises, and assignments immediately relevant and important in the students' eyes.

Razaki et al [2010] provided the general conceptual framework for such a capstone course suggesting teaching modules in the disciplines of economics, finance, and accounting. This paper extends that pedagogical work in two ways. First, it adds a fourth discipline to the course, business law. This demonstrates the ability to broaden the reach of this approach to the capstone course. Second, it takes the framework from a general, conceptual level to the specific, practical level by proposing concrete exercises/assignments.

Following the lead of Razaki et al [2010], this paper sharpens the focus of the capstone course further by centering it on one of the financial crisis's key contributors, the banking crisis. Focusing on banking taps the understanding and experience of students' daily life. And it does more. This familiarity provides the point of departure for exploring the causes of banking gone wild. As the analysis of Alonzi et al [2010] points out, agency issues rooted in asymmetric information and its consequent problems of moral hazard were major contributors to the banking crisis. Essentially, loan officers exploited their informational advantage in the near term by continually lowering credit underwriting standards. Specifically, the stylized story recounts the short term gain for loan officers and long term pain for their employer and others, and proceeds along the following lines. Those on the front line making the lending decisions, the loan officers, had the credit application files of the would-be borrowers containing (or lacking) credit bureau reports detailing credit history, the borrower pay stubs and job verification reports, the appraisers' evaluations of the properties, and more. Having studied the data in these credit files, the loan officers possessed an informational advantage. They knew better (asymmetric information) the quality of their would-be borrowers than did either the owners of the firms employing the loan officers or the buyers of the loan paper (via Mortgage Backed Securities or Collateralized Debt Obligations) in the secondary market for existing loan paper. Those loan officers exploited (i.e. the agency issue) this informational advantage by making ever riskier loans (i.e. a moral hazard). These loans looked fine in the near term and so earned the loan officers bigger pay checks/bonuses. But, ultimately, the riskier credit quality of the borrowers emerged resulting in more defaults in the longer term. This increased level of defaults left their employers or those buying the loans from their employers holding the bag of record losses due to record loan defaults.

This nexus of asymmetric information, agency issue, and moral hazard provides a rich vein for student investigations that challenges the student to use the principles and tools of Business Law, Economics, Finance, and Accounting. And, it encourages students to integrate the discipline insights to see clearly the interconnected nature of the banking crisis. The Business Law module in this paper challenges the student to realize the degree to which monitoring and enforcement of the law, or the lack thereof, contributes to reducing or encouraging agency problems harmful to society. The Economics module turns the student's focus to the conditions needed for markets to deliver the benefits of Adam Smith's Invisible hand revealing that asymmetric information robs the invisible hand of its benefits. The Finance module sharpens the focus of the Economic module to four banking- specific agency problems relating them to the Volcker rule and methods used to align managers' interests with owners'. The Accounting module drives the student's conception of accounting from blind application of rules to accounting's crucial role as information guardian that ascertains and disseminates relevant information that levels the unlevel informational playing field inherent in the presence of asymmetric information.

SECTION TWO: INTRODUCTION TO THE MODULES AND METHODS

The discipline of Business Law deals with the context within which humans interact. The Business Law module has the student refresh his/her understanding that the law sets the general context for human interaction and the boundaries of acceptable behavior. It also emphasizes that the application of the law requires judgment because it is evolving and admits to gray and nebulous areas. The section on Business Law challenges the student through exercises to realize how important the monitoring and enforcement of the law are in discouraging or encouraging malfeasance of bank management by exploiting information asymmetry. Specifically, the students are challenged to investigate whether the lack of monitoring and enforcement of the specific laws contributed to the severity of the 2008 banking crisis.

The banking crisis revealed that financial markets and, in particular, the market for bank loan paper seized up. In the Economics module the focus is on what made these markets ineffective. Adam Smith [Smith, 1991, p 399] claimed that markets coordinating individual self-interested voluntary decisions are "led by an invisible hand to promote an end which was no part of his intention…by pursuing his own interest he frequently promotes that of society more effectually than when he really intends to promote it" (i.e. the public good). Students are led to consider the foundations of competitive markets, the infrastructure needed for effective markets including the role of government in a market system, the design of compensation systems minimizing agency problems to promote competitive markets, and the impact and implications of asymmetric information for those foundations, the infrastructure, and compensation systems.

The Finance module introduces four specific agency issues in banking and provides current news reports illustrating each. It then presents questions and challenges to students. In one challenge, the students focus on the Volcker Rule preparing for and then debating the implications of the rule for banks and banking. The second reinforces the importance and implications of the design of compensation systems by directing them to research the methods currently used to align managers' interests with those of owners' in preparation for classroom discussion. This second exercise integrates well with the Economics module's compensation system design task. The two can be combined into one assignment or be pursued sequentially as the instructor wishes.

The Accounting module leads the student to see accounting as the informational antidote to the problems arising from asymmetric information. Accounting, done properly, ascertains and disseminates information and levels the unlevel informational playing field inherent in asymmetric information. Given accounting's crucial informational role, the students are asked to review the FASB's conceptual framework of financial accounting to address the general question: why do we (accountants) do what we do? From this general question, the focus narrows to two specific practices figuring prominently in the banking crisis: accrual accounting and mark-to-market valuation. Lastly, the section considers the auditor's duty to detect and report threats lurking in the financial data of a company.

To treat the topics, issues, and questions mentioned above, this paper employs the pedagogical methods of the trio (presentation, paper, discussion), think-pair-share, and the debate. The trio method provides the student the opportunity for developing oral and written communication skills as well as developing effective discussion etiquette. In the trio method, a topic is broken into several parts with each part assigned to a group of students. Each student group prepares a three to five page paper on its part, gives a brief twenty minute oral report to the class, and finally gives each classmate a copy of their paper. After all the reports on the topic are given, the next class session (or two or more) are devoted to a classroom discussion of the topic. A second method is the think-pair-share method. This method encourages students to study a topic in steps leading to effective communication in group situations. The professor poses a question and the students are asked to "think" in silence about the question (either right on the spot or between class sessions) and jot down her/his response. Then the students are "paired" up to compare and discuss their responses. Essentially, they are testing their ideas out in a limited, less public venue. Lastly, each pair "shares" its thoughts with the whole class. With the pump primed in the think and pair stages, a shared discussion can ensue. A third method is the debate. After posing the issue, the class is divided in half with each half an advocate for one side of the issue. On debate day, two representatives are drawn at random from each side to present their side's case. After the presentations, each side can ask questions of the other. The question session is followed by a general classroom discussion. In one variant of the debate, all students are required to prepare both sides of the issue and on the day of the debate the professor randomly chooses the students who will engage in the debate.

SECTION THREE: BUSINESS LAW AND REGULATORY AGENCIES

It is now universally recognized that the failure of regulatory agencies to prevent financial fraud, nonfeasance, and incompetence by lenders was a major cause of the 2008 global economic crisis. This is evidenced by the recent passage of the 2010 Dodd-Frank Wall Street Reform and Consumer Act. This section will elucidate the current structure, responsibilities, and failures of the various regulatory agencies in the economic upheaval with special emphasis on the role of banks.

There are no fewer than five and as many as eight federal agencies responsible for regulating the banking industry. Some of the crucial regulators include the Federal Reserve Board (FRB), the Office of the Controller of the Currency (OCC), the Office of Thrift Supervision, and the Federal Trade Commission (FTC). In addition, while the Securities and Exchange Commission (SEC) does not regulate banking activities per se, it does regulate "securities," which may be offered by banks, including investment banks.

One critical question to be asked is: With the number of federal regulatory agencies responsible for oversight and monitoring of the banking industry, how could such a monumental collapse of the home mortgage lending industry occur? To find an answer, students in a capstone course will find it instructive to examine relevant legislation as a foundation for understanding the regulatory scheme under which the banking industry operates.

Beginning in the 1980's, Congress and the bank regulators, most noticeably the FRB, the OCC and the OTC, began loosening statutory requirements for federally chartered banks and thrifts [Di Lorenzo, 2009, p 155]. In addition, Congress allowed non-federally chartered lenders to offer non-traditional, alternative borrowing instruments such as Adjustable Rate Mortgages (ARM's) to consumers. The net result was a proactive government policy of lifting strict statutory constraints on mortgage lending in favor of transferring decisions on lending policies and products to bank management [Ibid. p 156]. Unfortunately, this was akin to allowing the fox to watch the henhouse, which contributed to the moral hazard. The purported rationale for this uncharacteristic *laissez-faire* government policy was to increase rates of home ownership, especially for low income and minority borrowers, a distinct societal benefit.

At the same time that federal agencies were adopting a policy of deferring to bankers/lenders loan acceptance standards, lenders were introducing innovative, but risky loan products like ARM's and Mortgage Backed Securities (MBS's). Regulatory standards such as loan-to-value ratios were replaced with "guidance." The bank lenders were left with a vague mandate "to avoid unsafe and unsound mortgage products and practices." Given the potential for substantial profits, the prevalent "no risk" lending environment and little or no accountability for bad loans, the mandate to avoid unsafe and unsound loans was often ignored by loan originators [Di Lorenzo, p 178].

As if the "hands-off" approach by federal regulators charged with monitoring the soundness of the banking industry was not enough, Cox has pointed out that the federal government was proactive in interfering with and obstructing investigations of unsafe lending practices by various state attorneys general. The OCC, in particular, actively promulgated rules claiming for itself the exclusive right "to investigate and enforce violations of state consumer protection laws. This usurpation effectively preempted state laws that limited unfair mortgage loan terms for homeowners [Cox, p 279]. A perfect storm was thus created when the two primary bank regulators, the FRB and the OCC, took no action to control subprime mortgage lending abuses. The net result of the suppression of state enforcement actions, in combination with lax or non-existent federal oversight, was an environment rife for abuse by lenders [Ibid.300]. To make an already risky situation worse, in the 1990's, there was a proliferation of non-bank lenders. There was no federal regulator supervising these entities and, therefore, very limited federal oversight [Ibid. 292].

BUSINESS LAW PEDAGOGICAL MODULE

Business Law Project I: There are several federal regulatory agencies whose responsibilities include oversight of the banking industry. Students should understand the role of these various agencies in order to gauge their effectiveness during the mortgage lending meltdown.

Project description: Research the following federal agencies which are responsible for oversight and monitoring of the mortgage lending industry: the FRB, the OCC and the OTC. Prepare an outline which summarizes each agency's respective regulatory power. Specific attention should be paid to the supervisory and monitoring functions of each agency, e.g. their rulemaking, audit, and compliance authority. Determine whether each agency failed in its mandate to regulate the lending business, thereby being guilty of a "nonfeasance." Solomon [2008] has defined "nonfeasance" as the "failure to do an action that is required to be performed, i.e. when an official fails to perform his official duty" [p 215].

Lending Laws and Regulations

There are myriad laws which lenders must comply with in providing loans to prospective homeowners. Some of the more notable laws include: The Truth in Lending Act (TILA); the Home Ownership and Equity Protection Act (HOEPA); the Fair Credit Reporting Act (FCRA); the Equal Credit Opportunity Act (ECOA); the Real Estate Settlement Procedures Act (RESPA); the Gramm-Leach-Bliley Act (GLBA); and the Federal Trade Commission Act (FTC Act). As summarized by Cox [2009], these laws were primarily consumer protection laws governing mortgage loan origination and were grouped into the following categories:

(1) Disclosure requirements: Lenders are required to disclose relevant and material information to borrowers concerning their loans. Some examples of these disclosures are information concerning the total cost of the credit in the form of an annual percentage rate, the total of payments, whether the loan contains a prepayment penalty. Other provisions include "good faith disclosure" which requires listing the costs incurred by the borrower in taking out the mortgage [Cox, p 285]. TILA is the most notable of the disclosure laws, in particular Regulation Z of that Act. But TILA was only enacted as a consumer cost disclosure act and, therefore, was primarily focused on content, quantity and quality of information given to consumers rather than focused on imposing substantive prohibitions on lending practices harmful to consumers [Maman, 2008, p 215].

(2) Restrictions on the Terms of Mortgage Loans: Substantive restrictions on the costs and terms of residential loans were less prominent in the mortgage lending regulatory scheme [Cox, p 286]. This lack of regulatory oversight fostered lending practices that in hindsight contributed to the moral hazard. Mortgage products and practices which emerged included
   (a) adjustable rate mortgages (ARM's), which featured low initial rates;
   (b) payment options plans in which the borrower could choose an amount to pay, including the possibility of a minimum payment that did not include accrued interest;
   (c) loans made without regard to the borrower's ability to repay, including limited documentation or no documentation ("stated income"); and
   (d) loans made requiring very little or no borrower equity [Di Lorenzo, p 165].

Cox has reported "A striking feature of the growth in subprime mortgage origination was the rise of lending channels outside the depository institutions (banks) called 'non-bank lenders.' Up to now, there was very limited oversight of these non-bank lenders" [Cox, p 292]. Because of this glaring lapse in the regulatory scheme, abuses by profit-motivated, and in some cases "unscrupulous" lenders became more than a distinct possibility.

Business Law Project II: There are many federal laws and regulations which were intended to regulate bank lending practices. In order for students to understand how the regulatory environment may have contributed to the collapse of the home loan industry, students will need to research the applicable and relevant laws and regulations to determine if specific laws were violated, or simply ignored.

Project description: Research the relevant provisions of the following laws and regulations: TILA specifically Regulation Z; FCRA; GLBA; and FTC Act. Prepare an outline summarizing the lending provisions of each law/regulation. Students should determine whether any of these laws and regulations were violated, and if so, how.

Legislation

As previously discussed, lenders introduced a number of products and lending practices which, on the surface, provided otherwise unqualified borrowers with the opportunity to own a piece of the American dream---home ownership. ARM's promised borrowers a low initial rate, "teaser rates," on home loans [Di Lorenzo, p 165]. These rates were later adjusted upward increasing monthly payments by as much as 50% in some cases [Ibid. 166]. Lenders also engaged in practices in which little or no documentation was required of prospective borrowers concerning borrower assets or income level. Lenders would accept whatever income level the prospective borrower indicated ("stated income"). As lending practices became more and more lax, lenders eventually would not even bother inquiring about a borrower's income or assets, a practice known as "no income, no assets."

In addition to writing loans in which borrowers had little equity in the home they were purchasing, lenders were also underwriting loans without regard to a prospective borrower's ability to repay the loan. The FRB corrected this unsafe practice by issuing regulations in 2009 pursuant to the Home Ownership and Equity Protection Act ("HOEPA"). HOEPA and the FRB regulations thereunder prohibit loans made without regard to the borrower's ability to repay the loan. However, as pointed out by Di Lorenzo, these regulations apply only to "high-priced mortgage loans." In addition, there was no clear standard that defined a borrower's ability to repay [Ibid. 179]. While government agencies issued "guidance" that "prudent underwriting standards 'should include an evaluation of a borrower's ability to repay the … loan,' the guidance did not prohibit stated income or reduced documentation loans" [Ibid. 161].

Business Law Project III: The literature on the lending crisis is replete with suggestions and recommendations concerning steps that have been taken, or should be taken to prevent a similar crisis from occurring in the future. In 2009, Congress passed an amendment to TILA, "HOEPA," to address some of egregious lending abuses. On July 21, 2010, President Obama signed into law the Dodd-Frank Wall Street Reform and Consumer Act, a massive piece of legislation which purports to overhaul the financial banking industry.

Project Description: After researching the literature, write a 3-5 paper analyzing recent legislation adopted to correct the various abuses and deficiencies in the banking regulatory system which contributed to the financial crisis. A minimum requirement for this project should be an analysis of the salient features of the Dodd-Frank legislation and HOEPA as they relate to home loan mortgages. Students should specifically address the following questions:

1. What do HOEPA and Dodd-Frank specifically prohibit concerning the various abuses discussed in this paper?
2. Do these laws address those abuses adequately? Why or why not?
3. Is further legislation necessary to cover abuses not specifically addressed in the current legislation? If so, what additional prohibitions, restrictions might be considered.

SECTION FOUR: ECONOMICS PEDAGOGICAL MODULE

The seizing up of the financial markets, in particular the market for loan paper, provides the springboard for a close examination of the essential factors contributing to well functioning markets. Essentially the competition necessary for effective markets was absent. In large part, the culprit was the presence of the asymmetric information leading to myopic, poor lending decisions discussed in the introduction. In this context it is important for students to review the ivory-tower assumptions underlying competitive markets. Further, students need to appreciate the essential infrastructure needed to bring competitive markets to life in the real world. Lastly, students need to grapple with the challenges of designing managerial compensation systems that promote competitive markets by eliminating asymmetry of information. To accomplish these pedagogical goals and extend the work of Razaki et al. [2010], three concrete activities are presented that help students solidify their understanding and appreciation for competitive markets.

Economics Project I. Review of what economists mean by competitive markets by investigating and listing the requisite basic assumptions.

Project Description: To understand the fundamental assumptions that underlie a competitive market, students should list the competitive market assumptions found in several principles of microeconomics textbooks. The work of leading authors to check includes but is not limited to: Baumol & Blinder [2001], Case, Fair, and Oster [2009], Frank, Bernanke, and Johnston [20009], Krugman and Wells [2009], Lipsey, Ragan, and Storer [2007], McConnell and Brue [2008], Mankiw [2009], Parkin [2000]. (Even a chapter in Thomas Hieronymous' [1977] The Economics of Futures Trading or the first two chapters of Milton Friedman's [1962] Capitalism and Freedom can be consulted by the truly industrious student). When the students come to class with their written lists, have them contribute factors while you list them on the board. With the list compiled, put the students in groups of three and have them write an example for as many assumptions as they can in 5 minutes. Next have them repeat this listing but this time listing counter examples for as many assumptions as they can in 5 minutes. Then have each group report. The discussion naturally turns to the questions "How competitive is our market system?"

In the remaining time in the class period help the students recall the implication of "competitive" applied to a market. Truly competitive markets mean that each buyer and each seller is a price taker, not a price maker. Alternately this means each market participant is as small as an ant next to the elephant of the market. Each participant is powerless over price and only chooses whether and how much quantity to do in that market. Stress that it is this competitive assumption which leads to the efficacy of price and profit signals that, in turn, lead to an efficient allocation of resources, or more colloquially, "the right amount of each item at least cost."

We believe the students will find that "competitive" is an adjective that takes markets into a rarified environment indeed. Our list includes nine key assumptions or pillars: large number of buyers and sellers; independent action of buyers and of sellers; knowledgeable buyers and seller; easy entry and exit, property rights are well defined and enforceable; able adults in action (making the decisions); transactions costs are zero; homogeneous product; and given the current distribution of $ income and wealth. Our acronym is LIKE PATH$. Undoubtedly, some would add or delete from this list.

Economics Project II. The importance of proper Infrastructure and Microstructure for effective markets.

Project Description: This project requires students to look into the real world at an actual market's microstructure to see the infrastructure necessary for an effective market. That is, to go beyond the price-signal-tip of the market iceberg to the under-water-bulk of its microstructure. The Chicago futures markets found at the CMEgroup provide easy access via the web to the infrastructure of a market place. A brief introduction to these markets is helpful and is presented concisely in (less than 1300 words) "Chicago Board of Trade" in History of World Trade since

1450 [Alonzi in McKusker, 2006]. With this brief introduction in hand, direct the students to examine and understand the CBOT rule book found at the CME group website (URL given below). Essentially, this rule book is the collective, cumulative wisdom and practices gained by traders from their trading experiences since 1843. While "buying low and selling high", or vice versa, is the highlighted principle that everyone focuses upon, the purpose of this exercise is to stress that it is the market infrastructure which facilitates and permits this trading activity by ensuring that markets are effective. It was this infrastructure institutionalized in the CMEgroup rule book that enabled the effective, continuous functioning of the CME group throughout the financial crisis and enables it to this day.

Direct the students to examine three particular parts of the rulebook:
1. the webpage itself: estimate the number of pages in the rule book http://www.cmegroup.com/rulebook/CBOT/index.html
2. Chapter 5 on acceptable trading practices http://www.cmegroup.com/rulebook/CBOT/I/5/
3. Chapter 10 on Corn http://www.cmegroup.com/rulebook/CBOT/II/10/

Give them the following tasks:
1. Estimate the number of pages contained in the rule book,
2. Write a one page summary listing trading infractions, prohibited trading activities, and the responsibilities of a trader,
3. Answer the seven questions given below about the corn (or contract chosen by the instructor) contract.

The webpage itself reveals the scope and extent of the microstructure required for a market to function effectively and deliver the efficiency promised by economists from Adam Smith to the present. Require the students to tool around the links on the page to the various chapters. Assign them the task of estimating the number of pages contained in the rule book.

Chapter 5 on acceptable trading practices is an eye opener. "Free market" does not mean "anything goes". This chapter of the rulebook details what it means to trade in an acceptable and effective manner. Assign the student the task of writing a one page summary listing trading infractions, prohibited trading activities, and the responsibilities of trading.

Trading infractions are indicated in rule 514 and include:
1. a bid or offer out of line with the market;
2. a bid or offer which tends to confuse the other traders;
3. a trade through the existing bid or offer;
4. failure to confirm a transaction;
5. failure of a buyer and seller to properly notify the pit reporter of transaction prices in accordance with Rule 528 and/or failure to ascertain that such prices are properly recorded;
6. use of profane, obscene or unbusinesslike language on the trading floor;
7. use of undue force while on, entering or leaving the trading floor;
8. conduct which tends to confuse, distract, abuse or intimidate any Exchange employee;
9. conduct of an unbusinesslike nature;
10. failure to defer to a member who has clearly turned the market;
11. failure to indicate a quantity on a bid or offer; and
12. disseminating false, misleading or inaccurate quotes.

Prohibited trading activities such as withholding orders are covered in rule 529, trading against customer orders (531), disclosing orders (532), and prearranged trades (539) just to list a few. Positive requirements include recordkeeping (536), responsibility for customer orders (540), and reports of large positions (561) to list just a few. By reviewing chapter 5, students gain an appreciation and understanding that the infrastructure and microstructure required for an efficient "free market" is large, specific, and detailed. Lastly, have the students look at a chapter covering one specific futures contract. We would select corn for three reasons (though the instructor can use any of the many futures contracts): to be specific, to focus the investigation as all futures share common features, and to use an item most students think they know. Upon inspection most students will find that they know less about corn than they thought, unless they are from farm communities in the I states (Iowa, Illinois, Indiana as well as their neighboring states). The corn contract at the Chicago Board of Trade (CBOT) calls for delivery of number 2 yellow corn. This is the corn that cattle are fed to fatten them. It is neither sweet corn nor popcorn that humans consume directly. This differentiation of the types of corn reveals to the student the complexity and specificity required of doing business in the real world.

Direct the students to examine rule 10101 "Contract Specifications" and 10102 "Trading Specifications" and have them answer the following questions (answers given in parenthesis are good as of June 30, 2010):

1. How many bushels in a corn contract? (Answer: 5,000 bushels)
2. What is the allowed price differential between number 1 and number 3 yellow corn? (Answer: 2.5 cents)
3. What are the contract months for corn? (Answer: September, December, March, May, July)
4. What is the regular daily price limit for the change in the price of corn? (Answer: 30 cents per bushel)
5. In a regular day what is the maximum range of movement for the price of corn? (Answer: 60 cents per bushel, if corn goes up 30 cents from the prior close it can fall to 30 cents below the prior close for a range of 60 cents from +30 to -30 cents)

6a. What is the minimum price increment in the price of corn? (Answer: ¼ of one cent)
6b. How much is this price increment worth? Show your computation of this amount.
(Answer: \$12.50/contract = \$0.0025/bushel x 5,000 bushels/contract)

7. What is the position limit on corn? (Answer: 600 net long or short in spot month, 13,500 futures-equivalent net long or short in a month excluding the spot month, 22,500 futures-equivalent net long or short all months combine. All this subject to exemptions for bona fide hedging, risk management, arbitrage, or spreading as set forth in rule 559.)

This notion of market infrastructure leads directly to consideration of the appropriate role of collective action in general (the futures exchanges were designated self regulatory organizations in the 1800s and have functioned in this quasi government agency form ever since) and, in particular, of government in the competitive market place. While the preceding investigation of the CMEgroup rulebook leans toward supporting the efficacy of collective action, the financial debacle of 2008 provides the students with a laboratory view of what government action does that is counterproductive. In particular, direct the students to examine the effects of four areas of government action (notably this examination reinforces the theme of the Business Law Module):

1. Central bank monetary policy (the John Taylor "too loose" policy view vs. the Greenspan/Bernanke view of excess saving) pushing interest rates below equilibrium.
2. Government designated/approved credit rating agencies (Moody's, Standard and Poor, and Fitch).
3. Government guarantees of Federal National Mortgage Association (Fannie Mae) and Federal Home Loan Mortgage Corporation (Freddie Mac) which are hybrid corporations with publicly traded stock but implicit government guarantees.

4. Congress and HUD setting affordable housing lending targets for Fannie Mae and Freddie Mac lending activity.

Assign each small group one of the four areas of government action to investigate. Have them prepare a one page summary of their findings and have them present their findings. The discussion can then be focused on the proper role of government action in a competitive market place. The discussion will combine the effectiveness of collective action found through the examination of the CMEgroup rule book and the ineffectiveness of collective action found through the examination of the four areas of government action cited above. The upshot is that, as in most issues concerning economics, the answer is: “it depends”. A further point can be made that an informed citizenry is essential for the vitality and health of our democracy.

Economics Project III. Solving the Asymmetric Information Problem: Design a Compensation Plan.

Project Description: The third project focuses on the asymmetry of information. The papers by Razaki et al [2010] and Alonzi et al [2010] stress that the mismatch between compensation incentives based on short-term measures and profits for the corporations in the long-term profits can breed lender myopia. This myopia results in lending decisions that are beneficial to manager compensation in the short term but are detrimental to corporate profits and so owner equity in the long run. Give the students a challenge. Put them in groups of three students and have each group design an incentive system that eliminates asymmetric information and, thereby, promotes well functioning markets. For background, have them read The Big Short by Michael Lewis or for something shorter “The Making of a Fine Financial Stew” by Alonzi [2010] at http://www.financialdecisionsonline.org/current/AlonziSummer2010.pdf . Have the student groups prepare a one page bullet point presentation of their incentive plan and a short (five minute) presentation to the board of directors of the hypothetical financial firm they are supposed to be working for. Have each group make its presentation. Then, open the class to a general discussion of compensation.

The design of incentives is difficult. The grappling with the issue is the real intended payoff of this exercise. Suggestions of capping pay leads directly to discussions of price controls and the proper role of government. Suggestions of deferring pay leads to considerations of credibility. Do the decision makers believe that the promise to pay bonuses 15 or 30 years from now, when the mortgages made today are paid, is credible? Do they believe that other events outside their control would prevent the firm from honoring its deferred compensation promises? Some student may choose to examine how the sports industry has handled the issue of compensation (NFL, NBA, NHL, MLB) with caps and luxury taxes and the consequences on performance and the maintenance of a team. This third Economics project relates closely to the second challenge presented in the Finance module. The instructor could assign each of these sequentially to emphasize different aspects of contract design. Or the instructor could combine the Economic and Finance compensation design projects to stress the integral nature of the business disciplines.

The role of asymmetric information in the financial crisis of 2008 produced a powerful shock to the world economy and its effects are still being felt today. Thus, this crisis provides the motivation and spring board for reconsidering what “competitive” means in competitive markets, what infrastructure is needed for competitive markets, and what compensation system could promote competitive markets by overcoming the asymmetric information of the compensation plans in place pre-2008. In this Economics Pedagogical Module, three projects have been developed and presented providing the motivation for each task, the statement of each task, and suggested responses to each task. The instructor could use one, two, or all three tasks depending on her/his intent and time constraints. The outcome of these activities is that the student learns through hands on activities, receives a practical review of basic economic concepts, and develops her/his life-long grasp of what it takes to make a "free market" function efficiently.

SECTION FIVE: FINANCE PEDAGOGICAL MODULE

Examples of Moral Hazard and the Principal-Agent Problem: Recent financial news continues to report the devastating aftershocks of the 2008 financial crisis. From these reported aftershocks interesting questions concerning moral hazard continue to present themselves as challenges for students in the capstone course to tackle. First we review four areas of moral hazard prevalent in the banking industry noted in the literature, then we provide a recent news report involving each of the specific areas, and then tasks/questions are presented for the professor to draw from for class assignments. For the sake of brevity, only the most noteworthy examples are mentioned.
Razaki et al. [2010] outlined the four areas of moral hazard in the banking industry currently recognized in the literature. They are:

1. Between the bank and the bank's loan customers;
2. Between the bank and the deposit insurer;
3. Between the bank's managers and the bank's owners, and
4. Between the bank and the buyers of mortgage-backed securities.

A detailed discussion of these areas of moral hazard follows.

1. Between the bank and the bank's loan customers. The clearest example of this form of moral hazard is the subprime mortgage debacle. The initial selling point for these high-risk loans was that they would offer families the opportunity they might not have otherwise to purchase a home. Mortgage brokers would target customers with questionable or even poor credit and entice them with the American dream of home ownership. The tool that created the largest increase in defaults (and subsequent foreclosures) was the adjustable-rate mortgage (ARM) [Bernanke, 2007]. ARMs offer a fixed rate at a lower level than the customer's credit score would normally qualify, with that fixed rate good for a limited time (typically 3 or 5 years), after which the rate would become adjustable (and would also increase, thus increasing the customer's mortgage payment immediately). The selling point was that the customers could use the fixed rate period to consolidate their finances and increase their credit score, so that they could refinance the loans prior to the end of the fixed rate period. The banks' willingness to underwrite these loans was offered as proof to the customers that the dream was within their reach.

   The reality was that without a significant increase in income, the customers (who likely were just scraping by with the payments during the fixed rate period) would be unable to make the increased payments when the adjustable rate kicked in, and thus would quickly get behind in their payments and eventually face foreclosure. This was not an issue for the banks, since shortly after the paperwork was filled out, the banks sold the mortgages, keeping the transaction fees as riskless profit and transferring the risk to the new buyers of the subprime mortgages. This form of underwriting is known as the originate-to-distribute model

[Bernanke, 2007]. Thus the banks began a relationship with the customers that they had no intention of maintaining any longer than it took for the ink to dry on the contracts.

2. Between the bank and the deposit insurer. Again, the subprime mortgage debacle offers a clear example of this type of moral hazard. As described in Razaki et al. [2010], knowing that their deposits are insured, depositors carelessly ignore the quality of loan decisions made by their bank. The banks' managers may take advantage of the opportunity this lax oversight provides. They can increase their income from lending fees by lowering their credit standards. The lower credit standards lead to an increase in the riskiness of the bank's portfolio of assets, thus making the initial insurance premium set by the insurer inadequate. The consequence of this moral hazard is that the insurer would be unaware of this until the associated risks came to light. Ben Bernanke noted this in his address to the US House of Representatives in 2007: "When an originator sells a mortgage and its servicing rights, depending on the terms of the sale, much or all of the risks are passed on to the loan purchaser. Thus, originators who sell loans may have less incentive to undertake careful underwriting than if they kept the loans." [Bernanke, 2007]. When addressing possible legislative responses to the subprime mortgage debacle, Mr. Bernanke issued these words of warning: "The risk of moral hazard must be considered in designing government-backed programs; such programs should not bail out failed investors, as doing so would only encourage excessive risk-taking." [Bernanke, 2007].

3. Between the bank's managers and the bank's owners. The issues discussed in 1 and 2 above negatively impact the bank's owners by increasing the long-term risk of the loan portfolio in order to record short-term profits, which the bank's managers are motivated to do because those short-term profits have a big impact on their annual bonuses.

   While this issue illuminates the consistency of the moral hazards associated with predatory lending, there is another example in the news that is even more blatant in highlighting bank's managers' disregard for the owners. In May of 2010, a series of lawsuits were filed against Goldman Sachs Group Inc. by shareholders in response to the SEC filing fraud charges against the bank in April. The SEC charges relate to a transaction entered into by the hedge fund Paulson & Co., which is outlined in detail below in number 4. The transaction is one of several that are referred to as "Abacus" transactions [O'Connell, 2010]. The SEC issued a Wells notice to Goldman in 2009, asking for an explanation and stating that they intended to recommend enforcement action if their explanation were found to be inadequate.

   One of the suits alleged that Goldman management chose not to reveal that the bank had received the Wells notice: "Goldman chose not to issue a Form 8-K alerting investors to this event and later even omitted this information from its Form 10-Qs, while updating 'Legal Proceedings' as to other cases ... As a result, investors were unaware that the SEC was even investigating ABACUS 2007-AC1." [O'Connell, 2010]. Such actions, if true, reveal a clear moral hazard perpetrated by Goldman's managers on the bank's shareholders.

4. Between the bank and the buyers of mortgage-backed securities. Once again, the issues highlighted in 1 and 2 above can be shown to create a moral hazard for the buyers of the securities created by bundling the subprime mortgages underwritten by predatory lenders.

> However, the particulars of the fraud charges filed by the SEC against Goldman Sachs indicate an even more egregious moral hazard.
>
> The SEC charges allege that Goldman allowed the hedge fund Paulson & Co. to help design a structured financial product known as a collateralized debt obligation (CDO), which was built from subprime mortgages that were known to be risky. The primary moral hazard stems from the fact that the CDO was constructed from risky assets, but the true risk of those assets was not revealed to the buyers of the CDOs. The moral hazard was then amplified when Paulson & Co. later allegedly engaged in a transaction that bet against the performance of that CDO [Zuckerman et al, 2010], based on their understanding of the true risk level of the asset. The SEC alleges that investors were told neither of Paulson & Co.'s part in designing the CDO nor in the subsequent transaction Paulson entered into to profit from the CDO's eventual failure.

Notably in each instance above, the bank's managers had information that the other parties involved did not have (asymmetric information), and that they used that information to create a moral hazard that resulted in their financial benefit. Also, in each instance, while the actions resulting in the moral hazard benefited the managers, the long-term results of the actions were to the detriment of the bank's shareholders. Thus the principal-agent problem facilitated the managers' actions.

Class Projects: The issues of moral hazard and the principal-agent problem lend themselves well to class discussion topics. Students who read the newspapers and blogs will have strong opinions on the behavior of those under scrutiny, while students who are not in touch with the latest news will offer questions that stimulate further discussion. To initiate discussion, the class can divide into groups, with each group putting together a position paper on one of the following questions:

1. When a bank agrees to lend money to a customer for a mortgage, what responsibilities do the bank's managers have to the banks owners, and how should those responsibilities be accounted for in the contract?
2. When a bank agrees to lend money to a customer for a mortgage, what responsibilities do the bank's managers have to the customer, and how should those responsibilities be accounted for in the contract?
3. Is it wrong for the bank to sell a mortgage shortly after entering into the contract? Does doing so conflict with the responsibilities the bank has to the customer?
4. If the bank does sell the mortgage shortly after entering into the contract, what responsibilities does the bank have to the purchaser of the mortgage, and how should those responsibilities be accounted for in the contract?

Each group can then present its position paper as the starting point for class discussion. The instructor acting as a moderator for the discussion will help guide the students toward the common ethical principles underlying each of the different questions under consideration. The Volcker Rule (proposed by Paul Volcker, former chairman of the Federal Reserve and chairman of the president's Economic Recovery Advisory Board) is intended to restrict U.S. banks from speculating in derivatives and OTC markets and operating or investing in hedge funds or private equity funds (known as proprietary trading). This controversial rule, part of the Dodd-Frank financial reform bill passed in July 2010, was a point of contention for the Congressional conference committee responsible for shaping the final draft of the bill. This could form the basis of a debate, wherein students are selected to take opposite sides of the rule, research the details of the rule, and then argue the pros and cons of the final draft of the rule as it was included in the bill.

One of the most difficult issues facing business owners is how to align managers' interests with their own (the agency issue). Any efforts to affect managers' behavior will incur expenses for the shareholders, so shareholders must balance the costs of agency control against the potential benefits for each action under consideration. Students can research the methods currently used by large corporations to control agency costs (granting stock options, the use of dividends or high debt levels, etc.), argue the benefits and limitations of each method, and attempt to create new ways for firms to align managers' interests with those of the shareholders and other stakeholders. As discussed above in the Economics module, there is a natural integration of Economics and Finance in this task of aligning manager and owner interests that the instructor could choose to reflect by combining this second Finance module challenge and the third Economic module project.

SECTION SIX: ACCOUNTING/AUDITING PEDAGOGICAL MODULE

Razaki et al [2010] have stressed the importance of students in a business capstone course relearning the fundamental philosophical reasons for the existence of financial accounting rules, their users and uses, and the role of auditing in society. This module will enable students to fully comprehend the vital importance of accounting/auditing in the proper functioning of effective and efficient securities markets, especially in the amelioration of problems arising from information asymmetry and moral hazard. Students will perform three activities. The Accounting/Auditing Module is designed as a three part project.

Project I. The Conceptual Framework of Financial Accounting and Generally Accepted Accounting Principles (GAAP).
Project Description: Prepare a 2-4 page paper after studying, researching, and analyzing the FASB’s Conceptual Framework of Financial Accounting.

The global economic crisis that manifested itself starting in 2008 clearly showed the inadequacies not only in monetary policy, financial markets and banking regulation, and ratings agency reliability, but also accounting standards and auditing practices. This project requires students to study and analyze the Financial Accounting Standards Board’s (FASB) Conceptual Framework of Financial Accounting (circa 1976) that was developed to overcome the logical inconsistencies previously existing in Generally Accepted Accounting Principles (GAAP). Until then, accounting principles and procedures had been developed in an ad hoc fashion as the need arose because of changing business conditions and/or practices. The Framework was to provide a logically consistent and user focused approach that would enable accounting principles and practices to change as the business environment changed. For this project, students will have to analyze the following issues: (a) Who are users of financial accounting and why are they important? (b) What are the goals of financial accounting? (c) Why is financial accounting important to an economy? (d) What potentially crucial business problems does financial accounting help in ameliorating, with a special emphasis on efficient markets and information asymmetry? (e) Why is the need for effective auditing a necessary condition for the effective and efficient functioning of security markets? It is imperative that business students realize that the accounting discipline is more than mere journalizing of debits and credits.

Project II. Razaki et al [2010] had stressed the importance of students in a business capstone course relearning the fundamental philosophical reasons for the existence of financial accounting rules, their users and uses, and the role of auditing in society.
Project Description: Prepare a 3-5 page paper that summarizes the FASB's major accounting rules related to the treatment of debt security valuation and hedging. The students are divided into teams of three and each team is required to locate, study, and analyze one Statement of Financial accounting Standards (SFAS) related to debt securities. Six of the most relevant FASs are listed below. Alonzi et al [2010] listed monetary authorities, financial markets regulators, rating agencies, bank regulators, bank managers, public accountants, and for purposes of this module, financial accounting standard setters and regulators as being major contributors to the global economic crisis including the banking crisis. There were a number of ways in which financial accounting standards and practices fell short in assuring that the securities markets performed effectively and efficiently. These standards and practices did not ameliorate the negative aspects of information asymmetry. Further they did not prevent cataclysmic falls in the stock market, the debt market, and wild gyrations in the basically opaque market dealing with novel financial instruments and hedge funds.

For the sake of brevity, just two instances of accounting rules are cited that had a negative long-term impact on bank performance and that provide two excellent questions for class discussion. The first issue concerns the appropriate use of accrual accounting. Accrual accounting is the preferred standard for most industries and firms because it better captures certain economic realities. But is accrual accounting appropriate for banks? For banks, the application of accrual accounting results in anomalous treatment between expenses and revenues, and between two types of bank revenues. First, bank origination revenues are recognized in the period that the loan is originated whereas the potentially greatest expense/loss (loan default) is not recognized until much later when it actually occurs. Second, both origination fees and interest revenue increase profits, but the former is recorded immediately while the latter is recorded over the life of the loan. It is argued that these anomalous treatments are justified due to the uncertainties regarding collection of interest revenue and the risk of default in the future. This argument is increasingly less convincing because of improved predictive models and the plethora of financial information now available about loan applicants. These anomalies enable bank managers to exploit asymmetric information leading to morally hazardous personal gain.

The second issue concerns the suitability of mark-to-market valuation of securities. This rule requires that certain securities be shown at market value regardless of the impact on net income. In some cases the impact on short-term income can be huge because security values can gyrate rapidly. It is important to determine if mark-to-market accounting for mortgage loan valuation is suitable. Alonzi [2009] has posited that the nature of the financial instrument highly influences whether utilizing mark-to-market is suitable. If mortgagees are making their requisite payments, the writing down of a mortgage to current mark-to-market value could substantially understate the value of a mortgage in a declining market. Alonzi [2009] further states that following chain of events could result: greatly reduced value of bank mortgage assets leading to substantially reduced net worth resulting in inadequate bank capital positions which could dramatically constrain bank lending to consumers and businesses. Utilizing the trio method, capstone course students should briefly study, research, and analyze at least the following SFASs:
SFAS 105 Disclosure of Information about Financial Instruments

SFAS 119 Disclosure about Derivative Financial Instruments and Fair Value of Financial Instruments
SFAS 133 Accounting for Derivative Instruments and Hedging Activities
SFAS 157 Fair Value Measurements
SFAS 166 Accounting for Transfers of Financial Assets
SFAS 167 Consolidation of Variable Interest Entities

Project III. The fundamental responsibility for the fairness of a corporate entity's financial statements lies with top corporate management. There is an incentive for management to misstate, manipulate, or massage reported accounting numbers for personal gain. This situation is further exacerbated due to the inherent existence of information asymmetry and moral hazard. External auditors have a crucial role in protecting the interests of all non-management stakeholders in the firm. The failure of external auditors in the performance of their duties can cause massive economic loss for all these other stakeholders.
Project Description: Prepare a 3-5 page paper on the importance of external auditing of corporate entities, the duties and responsibilities of external auditors, and the failure of auditing firms to detect and report upon the perilous risks to which bank managements exposed their banks resulting in catastrophic losses leading to their demise and massive taxpayer bailouts.

The Sarbanes-Oxley Act (SOX) was signed into law in 2002 after the financial world was rocked by almost daily revelations of then unimaginable corporate scandals. It represented a broad overhaul of fraud, accounting and securities laws. It aimed at reigning in Wall Street malfeasance by creating a regulatory board to oversee the accounting industry. It also included measures to punish corrupt auditors and impose new standards to prosecute corporate financial misconduct. SOX created the Company Accounting Oversight Board (CAOB) whose five members are appointed by the S.E.C. They are mandated with overseeing the auditing of public companies that are subject to securities laws. The responsibility of the CAOB is to protect investors by ensuring that publicly held companies were subjected to accurate and independent auditing. The board's duties include establishing quality control and ethics standards for audit reports; inspecting public accounting firms; and investigating and imposing sanctions on firms when required [Norris, 2010].

The fundamental responsibility for the fairness of a corporate entity's financial statements lies with top corporate management. This responsibility was highlighted by the mandate in the Sarbanes-Oxley Act (SOX) of 2002 that the CEO and CFO personally sign the annual reports and bear severe consequences in the case of material misstatements. Independent external auditing of a firm's financial statements was required by the Securities and Exchange Commission (SEC) from as far back as 1933 to ameliorate the inherent conflict of interest that corporate management suffers from in the development of fair financial reports. SOX further mandated rules to ensure that auditors remained independent of firm management by requiring that the selection of auditors is made exclusively by the audit committee of the corporation which includes only outside directors. It tried to strengthen the independence of external auditors by limiting the scope of the consulting relationship that auditing firms can have with their clients and imposed very strict guidelines. The primary function of external audits is to protect the interests of all parties (stockholders being the primary beneficiaries) by providing an independent opinion on the corporation's financial position, performance, and risk profile. Auditors are bound to disclose management's material sins of commission or omission in financial reporting if they detect any during the course of an audit. The scope and extent of the audit procedures, in turn, is determined by the levels of various business risk exposures of the firm. In analyzing the causes of bank failures and bank managements' self-serving decisions, some blame must be assigned to the highly inadequate performance of bank auditors. The majority of bank external auditors failed to detect and/or disclose the correct risk profile and the deteriorating economic positions of the audited banks.

It is possible that these audit failures were due to an inherent conflict of interest in the auditing engagement, that is, the external auditor's duty is to protect the interests of non-management stakeholders, yet for all practical purposes, they are basically selected and paid by firm management. The project paper should discuss: (a) What are the primary responsibilities and duties of external auditors? (b) What are the inherent conflicts of interest faced by auditors? (c) What audit failures led to the banking crisis of 2008? (d) What financial and professional consequences should bank external auditors face? (e) Recommendations for remedying this situation in the future.

CONCLUSION

Centering the capstone course on the financial crisis offers students real world examples for the concepts taught in business courses, and makes it more relevant to them than a simulation. Students get to see how critical business issues impact each of the disciplines, and how ethical issues arise in the banking industry. By constructing the course around issues that the students have seen first-hand, the material is alive and significant to them, and they have a full stake in attempts to resolve the issues.

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