JOURNAL OF FINANCE CASE RESEARCH

Volume 16 2014 Number 1

The Journal of the
INSTITUTE OF FINANCE CASE RESEARCH

Volume 16, Number 1 **ISSN 1527-5426**

JOURNAL OF FINANCE CASE RESEARCH

The Official Journal of the
INSTITUTE OF FINANCE CASE RESEARCH

Robert Stretcher, Executive Editor
Sam Houston State University

Timothy B. Michael, Editor
University of Houston-Clear Lake

2014

Journal of Finance Case Research
The Journal of the Institute of Finance Case Research
Huntsville, Texas

Those interested in subscribing to, advertising in, or submitting manuscripts to the Journal, as well as other communication, should contact the editor.

Dr. Timothy B. Michael, Editor
Journal of Finance Case Research
School of Business
University of Houston-Clear Lake
2700 Bay Area Blvd, Box 204
Houston, Texas 77058
(281) 283-3193
michael@uhcl.edu

JOURNAL OF FINANCE CASE RESEARCH

Volume 16 **2014** **Number 1**

CONTENTS

SHORTER CASES & EXERCISES

Letter from the Editor

I am pleased to present the 2014 issue of the *Journal of Finance Case Research*, the official journal of *The Institute of Finance Case Research* (IFCR). 2014 was a rebuilding year for the journal, and we have come a long way in a very short period of time. I wish to express my sincere thanks to the associate editors and reviewers for their diligence over the past year. I must also thank the authors for this issue, who have displayed the patience of Job.

The IFCR provides an avenue for the writing of cases and their submission for peer review. Cases accepted for publication in the *Journal* have met the quality requirements of a double-blind review process, and they are available for use through *Journal* subscriptions or by contacting the *Institute* for multiple copies (for a small fee per copy of the case). Teaching notes are available to instructors desiring to use each case by contacting either the *Institute* or the authors.

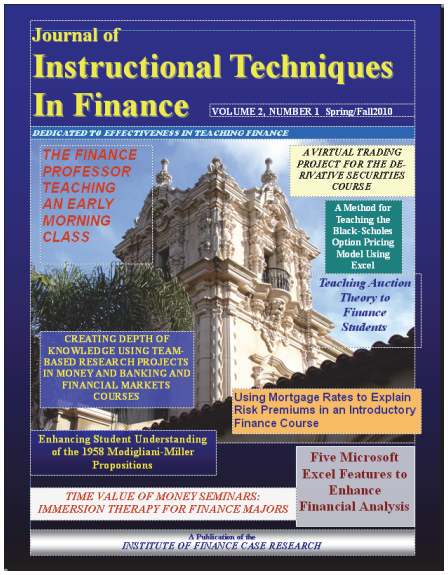
The *Institute* continues to promote the interaction of casewriters in conference settings. I would like to personally invite casewriters and case users to participate in the activities of the *Institute*. Our case sessions are held at a variety of finance conferences and provide the opportunity for interaction with others with a similar interest. Our recent conference activities have taken place in Jacksonville, Denver, Savannah, Maui, Biloxi, Nashville, Las Vegas, Chicago, Pensacola Beach, and other great destinations. Cases submitted for conference presentation are eligible for the review process for the *Journal*.

Our overall objective is to create an outlet for casewriters, and a source of quality cases for case users. Cases presented at our conferences, having had the advantage of being exposed to the scrutiny of experienced casewriters, have a better chance of final acceptance for journal publication.

Our acceptance rate is no more than 25%. The *Journal* is listed in *Cabell's Directory of Publishing Opportunities in Economics and Finance*, and is listed in other quality informational references as well.

This issue of the *Journal of Finance Case Research* contains several cases that we hope you will find useful in your courses and consulting work. Please visit our website often for updates and conference information. We encourage all parties interested in the production, promotion, and use of cases in finance to become active participants in the IFCR.

Timothy B. Michael, Editor
Journal of Finance Case Research
www.jfcr.org



Journal of Instructional Techniques in Finance

CALL FOR PAPERS

The *JITF* invites authors to submit manuscripts for publication consideration. The *JITF* is a periodical double-blind refereed journal which began in the Fall of 2008. The *JITF* seeks articles concerning innovative and effective teaching techniques, tools for educators, and especially techniques designed to enhance the student experience in finance courses at the college level. The *JITF* is designed to be useful to finance professors wanting to create better understanding of financial methodologies and analyses among their students. If you have used techniques that have helped you achieve this, please consider formally sharing it through our *JITF* venue.

We recommend formatting submissions according to the required *Guidelines for Authors* on our website. Although submissions in any format are considered for conferences, the presumption is that journal publication is the ultimate objective of a submission. If formatted correctly, one less editorial requirement stands in the way of effective revisions.

A *publication fee* of $57.00 per paper is required upon final acceptance of cases for publication in the *JITF*. If a manuscript is accepted for publication, all listed authors must either be *IFCR* members, or must submit the subscription fee prior to publication. Our operations are supported wholly by membership, subscription, and publication fees. We receive no support from universities or conferences.

We sincerely hope the *JITF* can serve your academic publishing needs. Our contact information:

Dr. Steve Johnson, Editor, Journal of Instructional Techniques in Finance
Department of General Business and Finance
Sam Houston State University
Box 2056, Huntsville, TX 77341
(936) 294-1283
sjj008@shsu.edu

HOW SAFE IS DEPOSIT INSURANCE? THE CASE OF CYPRUS

Arthur L. Centonze,
Pace University

Cyprus is a small player in a global network of low-tax, low regulatory banking havens. An outsized and aggressive banking sector dominates its economy. The failure of any large Cypriot banks given their sizable domestic intermediary role would have undermined the country's financial system and economy and, given their strong linkages to foreign banking systems, made them vulnerable to a failure of one or more of these international banks. The Cypriot banking crisis in 2012 and the international community's attempts to resolve it through an unprecedented "bail-in", in which investors and depositors in Cypriot banks would share the cost of the rescue, created serious doubts about the safety of bank deposits throughout Europe, the viability of the European Monetary Union (EMU), and its ability to resolve its financial problems. The newly elected president of Cyprus, Nicos Anastasiades, needed to decide quickly whether to support the bail-in plan or pursue another course of action that would resolve the immediate crisis, prevent panic and contagion among other fragile European banking systems, and restore confidence in the Cypriot financial system.

THE REPUBLIC OF CYPRUS

Cyprus is a 9,251 sq. km island in the Mediterranean Sea, south of Turkey, and former British colony which became independent in 1960. It has a population of approximately 1.2 million people, 98% of whom are literate, with a life expectancy of 78 years.

In 1963, violence erupted between the Greek Cypriot majority and Turkish Cypriot minority, which lead the UN to deploy peacekeeping forces in 1964. In 1974, a Greek military junta attempted to seize control of Cyprus and was met by military intervention from Turkey, which ultimately gained control of the northern third of the island. Despite intermittent negotiations over the years and numerous efforts by the UN to encourage the Greek Cypriot and Turkish Cypriot communities to negotiate a reunification of the country, it continues to remain divided.

Greek Cypriots, however, control the only internationally recognized government on the island. Nicos Anastasiades was elected by popular vote in February 2013 for a five-year term as president and head of the government. The post of vice president is vacant since, under the 1960 constitution, the position is reserved for a Turkish Cypriot. The legislative branch is unicameral with a House of Representatives consisting of 80 seats: 56 assigned to Greek Cypriots and 24 to Turkish Cypriots. Since Turkish Cypriots do not participate in governing, only those seats assigned to Greek Cypriots are currently filled.

The entire island entered the European Union (EU) in 2004. Due to the country's division, the rights and obligations of EU membership apply only to the areas under the internationally recognized government, and are temporarily suspended in the areas administered by Turkish Cypriots. Individual Turkish Cypriots, however, who are able to document their eligibility for Republic of Cyprus citizenship are afforded the same rights granted to citizens of other EU countries.

THE ECONOMY

The government controlled southern section of Cyprus has a market economy dominated by the service sector which accounts for approximately 81% of GDP, primarily tourism, financial services, and real estate services. Since 2000, the economy has grown faster than the EU average. The economy benefits from institutional stability, a favorable tax environment, relatively low levels of corruption and bureaucracy, a highly educated and low-cost employee work force, a well-established legal system based on British standards, and good communications infrastructure.

Upon joining the EU in 2004, Cyprus mounted an aggressive austerity program in preparation for joining the euro zone. The program converted a government fiscal deficit of 6.3% of GDP in 2003 into a surplus of 1.2% in 2008. Cyprus adopted the euro in May 2008. The economy tipped into recession in 2009, however, with GDP contracting 1.7% as tourism and construction slowed as a result of reduced foreign demand precipitated by the global financial crisis. Like other EU countries, Cyprus's economy has been slow to recover over the post-crisis period.

The per capita GDP of the northern Turkish Cypriot section of the country was estimated at $11,700 in 2007, about half the per capita GDP of the south. Given this area's small size and isolation, its use of the Turkish lira, and its large public sector that is dependent on substantial financial aid from Turkey, economic growth can be quite variable and influenced by shifts in critical sectors. For example, when tourism from Turkey and the EU dried up in 2008-09 due to the global financial crisis, the Turkish Cypriot economy experienced a sharp downturn. The administrative budget suffered a decrease in badly needed revenues while government expenditures on social services rose dramatically causing a further decline in the economy.

Exhibit 1 provides a summary of selected economic indicators for Cyprus over the 2008-2012 period.

Exhibit 1: Economy: Selected Indicators

Annual % change	2008	2009	2010	2011	2012
GDP growth (constant prices)	3.6	-1.9	1.3	0.5	-2.4
HICP (%)	4.4	0.2	2.6	3.5	3.1
Productivity growth	1.0	-1.2	1.1	0.0	0.9
Nominal earnings (%)	5.9	4.0	2.3	2.8	1.1
Unemployment rate (labor force survey)	3.7	5.4	6.3	7.9	11.8
Current trade balance (% of GDP)	-15.6	-10.7	-9.8	-4.7	-11.7
Fiscal deficit (% of GDP)	0.9	-6.1	-5.3	-6.3	-6.3
Public debt (% of GDP)	48.9	58.5	61.3	71.1	85.8

Source: CBC, IMF

By 2009, the financial crisis that originated in the world's most sophisticated financial centers with the most highly developed markets and institutions had spread to this small, vulnerable island economy. The deteriorating growth in GDP, productivity and earnings, together with rising inflation and unemployment levels, trade and fiscal deficits, and publically held debt suggested that the resulting financial dislocations would be large and difficult to manage and reverse.

CYPRIOT LEADERSHIP

When the Cypriot banking crisis came to a head in 2012, the country's president was Dimitris Christofias. Born in Dhikomo, Cyprus, in 1946, he spent five years in Moscow studying at the Institute of Social Sciences, Academy of Social Sciences, from which he received a doctorate in history. He joined the Cypriot communist party in his youth, and held several appointed posts in the party and served as an elected Member of the House of Representatives. He successfully ran in the 2008 presidential elections and became the European Union's and Cyprus' first communist head of state.

Many Cypriots blamed Christofias for the country's banking crisis. When Cyprus asked for a financial bailout from the euro zone in June 2012, Christofias balked at many of the conditions placed on the aid and the talks failed. He did not seek re-election to a second term and resigned in February 2013, following the presidential election in which Nicos Anastasiades, a conservative candidate, prevailed over his left-wing rival by one of the widest electoral margins in 30 years.

Anastasiades, also born in 1946, was the leader of the center-right political party, Democratic Rally. A lawyer by profession, he graduated from the National and Kapodistrian University of Athens and completed postgraduate studies in shipping law at University College London. The new president was immediately under pressure to prevent the country from suffering a financial meltdown and to finalize a financial rescue package with the euro zone and IMF. The vote appeared to be a strong mandate for change and reform.

THE CENTRAL BANK OF CYPRUS

The Central Bank of Cyprus (CBC) was established as an independent institution in 1963, shortly after Cyprus gained its independence. During the 1963 – 2008 period, prior to joining the euro area on January 1, 2008, the CBC conducted its own monetary policy and gradually formalized and strengthened its regulatory framework for banking supervision. The Bank also assumed a leading role in liberalizing the financial sector and promoting Cyprus as a regional financial center. Today, as a member of the European Central Bank (ECB), there is a minimum reserve requirement and standing lending and deposit facilities designed to provide adequate overnight bank liquidity.

The Governor of the CBC is Panicos O. Demetriades. An academic with a PhD in Economics from the University of Cambridge in the UK, he was appointed in May 2012 after a distinguished career as a Professor of Financial Economics at the University of Leicester. Since Cypriot's ascension into the euro area in 2008, the main functions of the CBC include: implementing the European Central Bank's monetary policy decisions; holding and managing the country's official international reserves; supervising banks; safeguarding the stability of the

financial system; preventing and suppressing money laundering activities in Cyprus; overseeing the payment and settlement systems; and acting as banker for the Cypriot government.

CONDITIONS AT THE START OF THE CRISIS

Cyprus is a small player in a global network of low-tax, low regulatory banking havens that serves a large number of foreign clients looking for high returns and discretion. With a GDP of about €18 billion, Cyprus represented only 0.2% of the Eurozone economy in 2012. However, the country's banking crisis and the international community's attempts to resolve it, created significant doubts about the safety of bank deposits throughout Europe, the viability of the EMU, and its ability to resolve its financial problems.

Cyprus enjoyed 30 years of stability and economic growth after its recovery from the 1974 invasion. Over that period, the average GDP growth was 4% and unemployment 3.5%. The capitalization of the Cyprus Stock Index grew from €1.8 billion in 1996 to €24 billion by the end of 1999, and then fell by 60% to €9.6 billion by 2001. The stock bubble and its subsequent bursting did not negatively affect consumer demand and the economy continued to grow in the early 2000's (Zenios, 2013).

When the global financial crisis began in August 2007, a confluence of factors affected the Cypriot economy and banking sector. For example, both the Central Bank of Cyprus and the local banking system were preparing for the introduction of the Euro on January 1, 2008. This precipitated a steep decline in the Cyprus Stock Exchange (CSE) index, due in part to financial market uncertainty and to "fire sales" by institutional investors attempting to liquidate positions ahead of the euro adoption (Cleridesa & Stephanou, 2009).

Consistent with housing price bubbles in the U.S. and elsewhere in Europe, house prices in Cyprus increased by almost 50% from early 2004 through 2008 (Cleridesa & Stephanou, 2009). The Cypriot Central Bank's efforts to enforce stricter real estate lending standards on banks as the global financial crisis unfolded did not immediately stem the rise in prices. Nor did it preclude the inevitable fall in demand for housing, particularly among non-residents seeking vacation homes and speculators, particularly the British, who had been seeking large financial gains.

By 2010, however, as the Greek fiscal crisis and euro zone debt crisis was deepening, the country was suffering from a level of indebtedness that was one of the highest in the euro zone. Exhibit 2 shows debt to GDP for Cyprus and selected euro zone countries in 2010. Total debt was the second highest after Ireland and excessively high household and corporate debt acted as a drag on growth. Loose fiscal policies after Cyprus's entry in to the euro zone led to a sharp rise in fiscal deficits and public debt, to nearly 86% of GDP in 2012 as previously shown in Exhibit 1.

Cyprus's borrowing costs were rising steadily. In 2011, the country was cut off from international financial markets and experienced numerous downgrades of its credit rating. The Cypriot economy contracted in late 2011 and liquidity dried up as global investors retreated out of fear that Cyprus would be unable to weather its own crisis and the crisis affecting the broader euro zone as well. Moreover the country was suffering from a debilitating banking crisis, driven in part by the euro zone debt crisis and by non-performing loans in Cyprus and Greece; a lack of international competitiveness to grow the economy out of its debt crisis; and institutional weaknesses.

Exhibit 2: Total Debt to GDP in 2010, Selected European Countries
(Amounts in percentage)

	Household debt	Corporate debt	Government debt	Total debt
Cyprus	159.2	144.5	61.5	365.2
Italy	45	80.9	121.1	247
Greece	60.7	62.9	165.6	289.2
Portugal	95.5	152.5	106	354
Ireland	118.9	222	109.3	450.2
Spain	85.7	140.7	70.1	296.5
Germany	61.6	66.5	81.5	209.6

Source: Eurostat

THE BANKING CRISIS IN CYPRUS

Exhibit 3 shows that bank assets in Cyprus increased from 426% of GDP in January 2006 to 716% in December 2012, a 68% increase over the period, the largest increase of any country with large banking sectors. The growth and size of the banking sector in Cyprus, as well as the risks posed for any country that depends so heavily on the sector for jobs and economic growth, raised concerns in Europe and elsewhere regarding the wisdom of developing such a finance dominated economic model.

Several European countries have similar or even larger banking systems. For example, Luxembourg's banking system is more than 21 times its GDP, while Ireland's and Malta's systems are similar in size to Cyprus. These banking systems grew significantly over the past decade as a result of an accommodating global environment as well as national policy measures designed to promote their countries as international financial centers.

Unlike Luxembourg, Ireland and Malta, however, which have a large number of foreign banks in their countries that account for a sizable portion of their banking system assets, domestically owned credit institutions in Cyprus accounted for 63% of total banking system assets in 2009. The subsidiaries of foreign, mostly Greek, banks in Cyprus accounted for about one-third of total assets in the same year (Stephanou, 2011).

Exhibit 3: Selected Countries with Large Financial Sectors (In percentage)

	Bank asset as share of GDP	
	January 2006	December 2012
Cyprus	426	716
Germany	300	311
Ireland	649	718
Luxembourg	2894	2174
Malta	534	792
Slovenia	100	143
Switzerland	571	482
U.K.	451	504
U.S.	85	91

Source: Eurostat (GDP), ECB (bank assets), Bureau of Economic Analysis (GDP), FDIC (bank assets), SNB (bank assets), Swiss Federal Statistics Office (GDP), The Wall Street Journal

Also, Cypriot banks are large relative to the size of the economy. The three biggest Cypriot banks, the Bank of Cyprus, Laiki (Popular Bank), and Hellenic Bank, controlled about 56% of domestic deposits and 48% of domestic loans by early 2011 (Stephanou, 2011).

Exhibits 4, 5, and 6 provide the consolidated balance sheets comparing 2005 with 2011 for the three largest Cypriot banks, the Bank of Cyprus, Laiki and Hellenic respectively. The balance sheets show the extent to which these three banks aggressively expanded their operations in recent years. Much of that expansion was abroad: in Russia, Ukraine, former Eastern bloc countries and particularly in Greece through bank branches, subsidiaries, and ownership of Greek bonds. Cyprus had created a dangerous systemic linkage to adverse events in these countries.

Exhibit 4: Bank of Cyprus: Consolidated Balance Sheet, 2005 and 2011, Selected Categories (Amount in thousands of euros)

	2005	2011	% Change
Assets			
Cash and balances with central banks	1,057,906	1,375,047	29.98
Placements with banks	4,459,184	2,627,831	(41.07)
Investments	3,516,017	3,570,014	1.54
Loans and advances to customers	12,079,230	27,366,917	126.56
Life assurance business assets attributable to policyholders	400,910	504,579	25.86
Property and equipment	276,160	473,188	71.35
Intangible assets	18,898	472,510	2,400.32
Other assets	628,208	2,030,711	223.25
Total Assets	**22,141,455**	**37,475,099**	**69.25**
Liabilities			
Obligations to central banks and amounts to banks	307,418	3,065,756	897.26
Customer deposits and other accounts	18,548,054	29,654,498	59.88
Debt securities in issue	550,356	49,791	(90.95)
Other liabilities	386,893	1,536,331	297.09
Life assurance business liabilities to policyholders	400,910	611,264	52.47
Subordinated loan stock	630,545	128.380	(79.64)
Total Liabilities	**20,824,176**	**35,046,020**	**68.29**
Equity			
Share capital	471,563	899,528	90.75
Share premium	538,566	1,164,903	116.30
Convertible enhanced capital securities	-	862,233	-
Revaluation and other reserves	165,892	3,232	(98.05)
Exchange adjustments reserve	(5,012)	-	(100.00)
Retained earnings	146,270	(585,261)	(500.12)
Non-controlling interests	-	84,444	-
Total equity	**1,317,279**	**2,429,079**	**84.40**
Total liabilities and equity	**22,141,455**	**37,475,099**	**69.25**

Source: Bank of Cyprus, Consolidated Balance Sheet, December 31, 2005, and December 31, 2011

Exhibit 5: Laiki Bank: Consolidated Balance Sheet, 2005 and 2011, Selected Categories (Amount in thousands of euros)

	2005	2011	% Change
Assets			
Cash and balances with central banks	753,425	1,034,086	37.25
Due from other banks	2,380,411	689,569	(71.03)
Financial assets at fair value through profit or loss	301,464	234,505	(22.21)
Advances to customers	6,967,179	24,778,623	255.65
Debt securities and other financial assets	602,104	2,658,640	341.56
Available for sale financial assets	949,508	1,791,205	88.65
Other assets	163,368	693,234	324.34
Income tax assets	18,290	59,061	222.91
Deferred tax assets	3,096	580,246	18,641.80
Investments in associates	10,253	115,741	1,028.85
Intangible assets	80,637	797,780	889.35
Investment property	26,347	38,056	44.44
Property and equipment	156.637	291,232	85.93
Total Assets	**12,412,719**	**33,761,978**	**172.00**
Liabilities			
Due to banks	213,666	10,301,370	4,721.25
Customer deposits	9,984,988	20,160,804	101.91
Senior debt	299,621	376,107	25.53
Non-controlling interest	62,310	106,398	70.76
Loan capital	371,671	1,333,727	258.85
Other liabilities	875,689	989,412	12.99
Total Liabilities	**11,807,945**	**33,267,818**	**181.74**
Equity			
Share capital	267,912	1,369,444	411.15
Share premium	8,445	2,334,583	27,544.56
Reserves	328,417	(3,209,867)	(1,077.38)
Total equity	**604,774**	**494,160**	**(18.29)**
Total liabilities and equity	**12,412,719**	**33,761,978**	**172.00**

Source: Laiki Bank, Consolidated Balance Sheet, December 31, 2005, and December 31, 2011

Exhibit 6: Hellenic Bank: Consolidated Balance Sheet, 2005 and 2011, Selected Categories (Amount in thousands of euros)

	2005	2011	% Change
Assets			
Cash and balances with central banks	178,160	219,890	23.42
Placements with other banks	791,973	1,645,333	107.75
Loans and advances to customers	2,555,157	4,986,827	95.17
Other assets	1,802,607	1,426,926	(20.84)
Total Assets	**5,327,897**	**8,278,976**	**55.39**
Liabilities			
Deposits by banks	285,469	74,302	(73.97)
Customer deposits and other customer accounts	4,328,656	7,106,541	64.17
Loan capital	163,182	319,878	96.03
Non-controlling interest	986	2,599	163.59
Other liabilities	263,710	344,057	30.47
Total Liabilities	**5,042,003**	**7,847,377**	**55.64**
Equity			
Share capital	102,226	132,448	29.56
Reserves	183,668	299,151	62.88
Total equity	**285,894**	**431,599**	**50.96**
Total liabilities and equity	**5,327,897**	**8,278,976**	**55.39**

Source: Hellenic Bank, Consolidated Balance Sheet, December 31, 2005, and December 31, 2011

By 2011, Cypriot bank liabilities, particularly those of the country's two largest banks, the Bank of Cyprus and Laiki, were growing rapidly and total bank liabilities reached over 700% of the country's GDP, with much of it representing exposure to Greek loans and government debt. By December 2012, deposits in Cypriot banks totaled €64.8 billion of which €26.8 billion were foreign. Of the foreign portion, €15.4 billion were Russian deposits (Alderman & Thomas, 2013). Cypriot banks had long been considered a haven for rich Russians due to the country's low taxes and ease of converting rubles into euros. Cypriot banks paid higher deposit rates than other euro zone banks and Cypriot bankers adopted a no-questions asked approach to customers. By the time the crisis hit, more than one third of bank deposits, accounting for more than 150% of GDP, were from foreign nationals, a potentially unstable form of funding (Zenios, 2013).

The banks also faced significant risks on the asset side of their balance sheets. In the spring of 2010, as an international bailout of Greece looked increasingly likely, Cypriot banks, particularly the Bank of Cyprus, bought Greek bonds attracted by the high yields that came with the high risk. At the time, the bonds were trading at a discount of approximately 30% and Cypriot banks were betting that any future losses would be less than the market expected. Two years later, in March 2012, Greek bonds would be written down by 75 percent to reduce the level of debt the Greek government would have to repay (Thomas, 2013a). In 2012 alone, Cypriot financial institutions lost an estimated €4 billion ($5.4 billion) in a Greek debt restructuring,

against low capital levels that formed only a thin cushion against deteriorating assets (Zenios, 2013).

In the early stages of the global financial crisis, the Cypriot banking system was experiencing a rapid increase in bank lending to local corporations and construction companies. Loans to residents, particularly for real estate loans, grew approximately 20% per year during 2007-2008. Bank housing loans to non-residents were also increasing rapidly. The non-resident share of bank housing loans increased from 3.2% of total bank housing loans in January 2006 to 18.6% in March 2009 (Cleridesa & Stephanou, 2009). The introduction of the euro in 2008 had led to a large, foreign liquidity injection into the Cypriot banking system, which led, in turn, to a rapid surge in the credit expansion and size of the banking sector.

Moreover, Cypriot banking assets consisted of a high percentage of the Cypriot government's own debt, about 48% (Charalambous, 2013). This meant that the fortunes of Cypriot banks were closely aligned not only with potential adverse events in countries to which they were closely allied, but also to any deterioration in the strength of the Cypriot economy.

The possible failure of large Cypriot banks, given their foreign exposure and large domestic intermediary role, would have disrupted the flow of financial services within Cyprus thereby undermining the broader financial system, the real economy and Cyprus' developing reputation as an international financial center. Moreover, Cypriot banks placed approximately 70% of their foreign currency deposits with international banks, thus creating a systemic linkage to the strength of foreign banking systems. A failure of one or more of these international banks would have negatively affected the Cypriot banking system (Cleridesa & Stephanou, 2009).

By mid-2012, Cypriot banks became significantly undercapitalized. Estimates indicated that the banks needed capital in excess of 50% of GDP to cover existing and future losses (IMF, 2013a). The government had insufficient funds to support a rescue of this magnitude. In June 2012, the Government had no other choice but to apply to the European Commission (EC), the European Central Bank (ECB), and the International Monetary Fund (IMF), the troika, for economic assistance.

CRISIS MANAGEMENT

In the short run, the two main problems that Cyprus needed to address were the debt and banking problems. In the context of a European fiscal and banking crisis, the challenges were substantial particularly in the absence of political agreement about the nature, causes and remedies of the crisis, including among the troika institutions. Also, the predictable recession in Cyprus that would follow deleveraging of both the public and private sectors added to the challenges.

Moreover, management of the crisis during months of negotiations between the troika and the government of Cyprus regarding the size and terms of the rescue package, was complicated in early 2013 by the fact that President Dimitri Christofias was not running for another term and was about to leave office. Differences between the government and the troika, particularly the IMF, regarding the capital needs of Cypriot banks were glaring.

To help resolve the matter, the Cypriot government hired the Pacific Investment Management Co. (Pimco) to assess the banks' capital needs. A draft of Pimco's report led Cypriot central bank chief Panicos Demetriades to estimate that the bank rescue could cost as much as €10 billion. This rescue package would represent more than 50% of Cyprus's GDP and would be added to the already high public debt in 2012 of close to 86% of GDP (Zenios, 2013).

President Christofias urged the euro area to allow its rescue fund, the European Stability Mechanism (ESM), to lend directly to Cypriot banks rather than to the Cypriot government in order to limit the debt burden on Cyprus, a direct recapitalization practice the ESM had not yet adopted. In a swipe at prevailing euro area rescue terms Christofias said: "It's my firm conviction that unilateral policies of austerity are a guaranteed recipe for failure, only succeeding in making the rich richer and the poor poorer" (Stearns, 2013).

THE TROIKA'S TERMS

Representatives from the EU, IMF and the ECB, the troika, were ready to act. They had been discussing a rescue program for Cyprus for months, and the election of a new president in February 2013, Nicos Anastasiades, provided a fresh opportunity to reach a deal.

At approximately 5:00pm on Friday, March 15, 2013 EU Finance Ministers including Cyprus's Finance Minister Michael Sarris, IMF managing director Christine Lagarde, ECB executive board member Jorg Asmussen and the EU's economic affairs commissioner, Olli Rehn, assembled in the fifth floor meeting room of Brussels's Justus Lipsius, the building in which EU ministers hold summit meetings. Their task was to craft a solution to the banking crisis in Cyprus. President Anastasiades and his aides waited in the country's delegation room two floors above. They were prepared to approve or reject the troika's terms (Steinhauser, Stevis, & Walker, 2013).

The IMF and Germany's representatives at the meeting insisted that, despite an assessed need by Cypriot banks for approximately €17.5 billion in financial assistance, the aid to Cyprus be limited to €10 billion ($13 billion) (Steinhauser, et al., 2013).

. The European Stabilization Mechanism (ESM), a permanent facility to provide funds to member states with debt problems serious enough to threaten the euro zone, would contribute €9 and the IMF would provide an additional €1 billion in aid (IMF, 2013a).

Moreover, countries with bailout weary governments and voters like Germany, Finland and the Netherlands were strongly in favor of proposals calling for losses to be borne by bank investors and depositors. Thus, for the first time since the start of the financial crisis in Europe, a "bail-in" was on the table where shareholders, bondholders and depositors would share some or most of the cost of the rescue, an unprecedented event for the euro area.

THE RISK TO DEPOSITORS

In practice, regulators in both the United States and Europe have always protected both insured and uninsured bank depositors to prevent panicky withdrawals. Several big banks failed in the U.S. during the financial crisis, but deposits were transferred to healthy banks with no depositor losses, even for those with accounts above the insured limit. For an additional measure of safety and confidence, the FDIC raised the deposit limit from $100,000 to $250,000. Early in the financial crisis, euro zone national governments also raised the deposit insurance threshold from €20,000 to €100,000. However, President Anastasiades admitted that the Cyprus deposit insurance liability amounted to €30 billion, an amount larger than the size of his country's economy and could not be paid (Thomas, 2013a).

In negotiations with the troika Cyprus's Finance Minister Michalis Sarris said any plan which called for depositors to assume losses on their savings would be unacceptable to his government. Besides he explained, once the details of the plan were released, depositors from

rich Russian oligarchs to poor Cypriot pensioners would run to ATM machines and withdraw their money. A banking panic would spread throughout Cyprus and possibly to Spain, Italy, Greece and other fragile European banking systems leading to widespread financial market disruptions and economic collapse.

THE DEAL

Mr. Sarris' arguments were not persuasive. Such was the belief among European countries, particularly the wealthier northern countries that bailouts financed largely by European taxpayers must end. Bank investors and depositors needed to share the costs of bailouts, and the far-reaching implications of this new approach were not lost on the negotiators.

After hours of tense negotiations a decision was reached. Insured and uninsured depositors in Cypriot banks would be required to bear €5.8 billion (7.5 billion) of the €10 billion cost of the bailout. The plan called for a one-time tax of 3.5% on depositors with less than €100,000 ($130,000) in savings accounts, and a tax of 12.5% on depositors with more than €100,000, the European deposit guarantee limit (Steinhauser, et al., 2013). In addition, junior bondholders in Cypriot banks, mostly pensioners and low-income earners, would lose approximately €1.4 billion in holdings (Alderman & Thomas, 2013). Fearful that details of the discussions may be leaked, resulting in bank runs throughout the island, Cypriot officials took the precaution of freezing all electronic transactions from Cypriot banks. The move was unprecedented.

Early Saturday morning Mr. Sarris and others went up to the Cypriot delegation room to brief President Anastasiades on the night's negotiations. Jorg Asmussen, the ECB board member told Mr. Anastasiades that without a deal, Cyprus's two largest banks faced insolvency and the ECB would no longer be able to issue emergency liquidity loans to them. They would collapse and take the island's financial system with them.

The newly elected president needed to decide whether to support the plan, then take it to an emergency parliamentary meeting for a vote, and quickly sell it to Cypriot investors and voters. The funds would be withdrawn electronically from Cypriot bank accounts on Sunday, and since Monday was a national holiday in Cyprus, banks would reopen on Tuesday, March 19th. The troika anxiously awaited his decision.

REFERENCES

2006 Annual Report. (2013, November 18). Retrieved from Hellenic Bank: https://www.hellenicbank.com/images/media/assetfile/2006%20annual%20report%20low%20res.pdf

2011 Annual Report. (2013, November 18). Retrieved from Hellenic Bank: https://www.hellenicbank.com/images/media/assetfile/annual%20e-report%202011.pdf

Alderman, L. (2013, March 18). *Resistance in Cyprus Grows to Eurpe's Bailout Plan*. Retrieved March 19, 2013, from The New York Times: http://www.nytimes.com/2013/03/19/business/global/asian-markets-drop-on-latest-euro-concerns.html?pagewanted=all

Alderman, L., & Thomas Jr., L. (2013, March 19). Second Thoughts in Europe as Anxiety Rises in Cyprus. *The New York Times*, pp. B1, B5.

Annual Financial Report 2011. (2013, November 18). Retrieved from Bank of Cyprus: http://www.bankofcyprus.com/Documents/Investor%20Relations/Financial%20information/English/AFR2011_%20English.pdf

Annual Financial Statement 2011. (2013, November 18). Retrieved from Laiki Bank: http://www.laiki.com/EN/News/Documents/AnnualFinancialStatement2011EN.pdf

Annual Report 2005. (2013, November 18). Retrieved from Laiki Bank Group: http://www.laikibankgroup.com/EN/InvestorRelations/FinancialInformation/AnnualReports/Documents/MPB/2005.pdf

Central Bank of Cyprus. (n.d.). Basic Facts. Retrieved June 1, 2013 from http://www.centralbank.gov.cy/nqcontent.cfm?a_name=home

Central Intelligence Agency. (n.d.). The World Factbook. Retrieved June 1, 2013 from https://www.cia.gov/library/publications/the-world-factbook/geos/cy.html

Charalambous, A. (2013, January). Cyprus Economy: Recent Economic Developments and Debt Sustainability (PowerPoint Slides). Retrieved June 1, 2013 from http://www.mof.gov.cy/mof/mof.nsf/All/E7AF87A3C91A9B0CC2257AEF0043B54E/$file/newCyprus%20economydebt%20sustainability.pdf

Cleridesa, M., & Stephanou, C. (2009). The Financial Crisis and the Banking System in Cyprus. *Cyprus Economic Policy Review*, 27-50.

Financial Information For the Period 1 January 2006 to 31 December 2006. (2013, November 18). Retrieved from Bank of Cyprus: http://www.bankofcyprus.com/Documents/Investor%20Relations/Financial%20information/English/StoixeiaPliriforiesFY2006EUROENG.pdf

IMF Executive Board Approves €1 Billion Arrangement Under Extended Fund Facility for Cyprus. (2013a, May 15). Retrieved May 17, 2013, from International Monetary Fund: http://www.imf.org/external/np/sec/pr/2013/pr13175.htm

IMF Loan to Stabilize Cyprus's Financial System, Restore Growth. (2013, May 17). Retrieved May 17, 2013b, from International Monetary Fund: http://www.imf.org/external/pubs/ft/survey/so/2013/car051713a.htm

Michaelides, A. (2012). Banking Crisis in Cyprus and in the Eurozone. *Cyprus Economic Policy Journal, Vol. 6, No. 2*, 41-47.

Sorkin, A. R. (2013, March 19). A Bank Levy in Cyprus, and Why Not to Worry. *The New York Times*, pp. B1, B5.

Stephanou, C. (2011). Big Banks in Small Countries: The Case of Cyprus. *Cyprus Economic Policy Review, Vol. 5, No. 1*, 3-21.

Stearns, J. (2013, January 15). *Cyprus Split With IMF on Banks Delays Aid, Christofias Says*. Retrieved January 16, 2013, from Bloomberg: http://www.bloomberg.com/news/2013-01-15/cypriot-president-christofias-decries-eu-strict-austerity-.html

Steinhauser, G., Stevis, M., & Walker, M. (2013, March 18). *Turmoil in Cyprus Over a Bailout Rattles Europe*. Retrieved March 18, 2013, from The Wall Street Journal: http://online.wsj.com/article/SB10001424127887323639604578366700444429538.html

Thomas Jr, L. (2013a, April 1). Calculating the Impact of Cyprus's Bailout. *The New York Times*, p. B8.

Thomas Jr., L. (2013b, March 22). An Exit From the Euro by Cyprus Would Hurt Its Citizens, but Little Affect Europe. *The New York Times*, p. B4.

Zenios, S. Z. (2013). The Cyprus Debt: Perfect Crisis and a Way Forward. *Cyprus Economic Policy Review, Vol. 7, No. 1*, 3-45.

CS PHARMACEUTICALS COMPANY: NEW THERAPEUTIC COMPOUND VALUATION

Thomas Patrick, The College of New Jersey
Christopher Sobotka, Johnson & Johnson Inc.
Andrew Carver, The College of New Jersey

CS Pharmaceuticals is in the early stages of development of a drug that aims to treat depression. This compound, BSX-001, has successfully completed Phase IIA of its clinical trials with encouraging results. More time and a significant amount of investment are needed to continue through Phase IIB and Phase III trials. CS Pharm and its parent company must decide whether or not to continue investing in this drug.

This case introduces students to the high-risk business of developing a new pharmaceutical compound. Students will have to compute a risk adjusted net present value, consider a large variety of risks, and ultimately make a recommendation to the investment committee.

INTRODUCTION

Charles Sellers earned a PhD in Biomedical Engineering from Columbia University. Upon graduation, he obtained a research position with a foreign pharmaceutical company that operated research laboratories in the United States. While in this position, Charles realized that his research could result in huge profits for his employer, while his own income would remain flat. As he was contemplating quitting his job and striking out on his own, the decision was made for him. As the result of a merger and the restructuring that followed, Charles found himself unemployed. With his experience and training, he knew that he could easily find another job in the industry. Instead he thought this was just the push he needed to start his own company, and founded Charles Sellers Pharmaceuticals (CSP). Charles' wife was a medical doctor and he thought they could live on her income until he created a compound that would have commercial value. Little did he know that over the next few years he would become the father of two daughters and his wife would give up her medical practice to be a stay-at-home mother.

Charles had a promising idea for a drug to treat depression. For the next few years, the Sellers family lived off their savings and loans from friends. Charles had no idea how long it would take to create the compound he was seeking. The longer it took, the more financial pressures mounted. Neighbors began to notice that one week the Sellers' grand piano "disappeared" and a few weeks later the family van was no longer in the driveway. Charles became desperate and turned to a venture capitalist from the First Street Fund whom he had met while picking up his daughters from a swim class. With an investment from First Street, CSP

was able to advance the molecule through Phase I clinical trials. In May 2008, CSP was acquired by Hillebrand Pharma, a large integrated pharmaceutical company.

The terms of the acquisition gave Charles significant autonomy to continue his development work, but more importantly it provided the financing required to advance BSX-001 through the costly clinical testing process.

BSX-001

Parent company Hillebrand, the new owner of CSP and molecule BSX-001 had a strong reputation as a pharmaceutical company with a focus on treating neurological diseases, and had several other drugs already in its portfolio. Neurological disorders include ADHD, schizophrenia, epilepsy, depression, Alzheimer's disease, and neuropathic pain. The neuroscience global market for pharmaceuticals is a $70 billion annual business spread across dozens of companies. It is comprised of a small number of highly profitable "blockbuster" products, many moderately profitable products, and hundreds of generics.

BSX-001 successfully completed a Phase IIA proof-of-concept study (POC), which showed that it improved depressive symptoms in patients with refractory depression in a statistically significant way versus both a placebo and an active alternative medication, Fluoxetine (Prozac). BSX-001 is thought to be a potentially promising new treatment option for patients with advanced stages of depression who have not been helped by other currently available medications. Despite the potential upside, launching this product would be a large investment for CSP and parent company Hillebrand, which must now evaluate the desirability of continued investment in BSX-001.

DEPRESSION MARKETPLACE

Depression is a chronic disease of the brain with measurable physical symptoms that significantly disrupt the sufferer's daily life. It can build up gradually or be caused by a traumatic or stressful event. The main difference between depression and simply feeling down is the severity and duration of the symptoms. Typical symptoms can include loss of sleep, appetite, concentration or motivation; feelings of guilt, worthlessness or helplessness; loss of interest in hobbies or favorite activities; thoughts of death or suicide, and physical symptoms such as chronic pain and headaches. In fact, most suicides are linked to depression. In the US, the suicide rate is twice as high as the homicide rate.[1]

An estimated 9% of Americans currently suffer from depression. It usually affects adults and is much more common in women than men. Thus, there is significant opportunity to bring better products to patients to ease their suffering.

Treatment for depression often includes antidepressant medications. The market for depression drugs is highly generic, with most products available for purchase at very low prices. In some cases, it can cost less than $0.20 per day for a patient to be on a generic medication. While the low cost can benefit patients, it also creates a barrier to entry for new depression products. The average cost for a new branded pharmaceutical is roughly $8.00 per day of therapy, so to justify that price, the additional benefit brought to patients needs to be high.

Despite the prevalence of antidepressants, the efficacy of any given drug varies among individuals and some forms of depression do not respond easily to drug treatments, i.e.,

treatment-resistant depression or refractory depression. While there is no consensus among experts on the exact definition, the term refers broadly to cases that have not easily responded to drugs from two or more different classes. Treatments for refractory depression include switching drugs, adding on other medications, or electrically stimulating different areas of the brain.

More recently it has been determined that new drug therapies may be of help in this area, but scientific hypothesis has yet to be proven beyond POC analysis. The potential to address this need has generated some excitement within CSP for BSX-001.

KEY FINANCIAL FACTORS FOR VALUATION

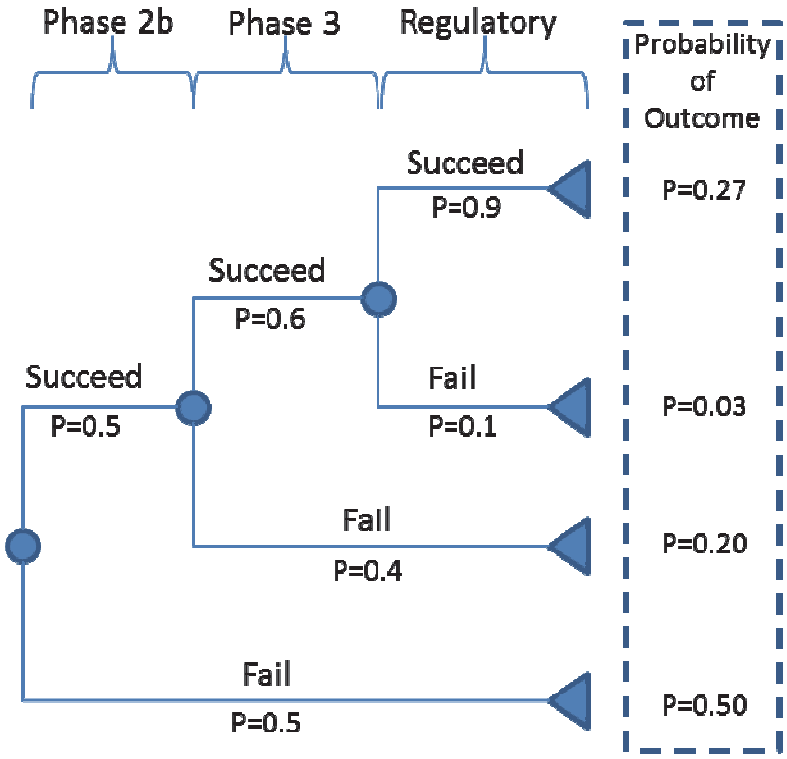
Risk

Pharmaceutical investments are very risky. In most cases, to be approved by the FDA, a drug must successfully complete phases I, II and III of clinical testing. Fewer than 5% of new products entering into Phase I are brought to market. Due to the high costs of conducting clinical trials, the possibility of a failed clinical trial presents a major risk. A description of each phase, along with probability of success for each phase of clinical development, is shown below. These probabilities represent CSP scientists' best estimates as well as information gathered in the already completed Phase IIA trial.

Exhibit 1. Phases of Drug Development

Phase I	– Testing in normal, healthy humans (Exception to this is testing for cancer and diabetes drugs) – Average 30 patients or fewer – Observe safety and effects of drug
Phase IIA/B	– Entry into full development – Involve patients to whom the therapy is targeted – Average 200-300 patients – Observe efficacy
Phase III	– Testing in patients vs. currently available medication – Hundreds to thousands of patients – Provides an adequate basis for product labeling
Phase IV (as needed)	– Ongoing trials over many years – May be required by FDA or undertaken to better understand or market the drug

Figure 1. Scenarios and Probabilities



Cost by Phase

Due to all the research & development and clinical trials required, the cost of bringing a new drug to market can total $1 billion. Each cost is incurred in a specific phase of development. CSP has already collected cost estimates for its clinical trials and information is provided below.

Once a decision is made to start a phase of development, it should be assumed that the full cost of that phase will be spent. It is considered unethical to remove patients from an ongoing study, so that is not an option once a study is underway. If a phase fails, however, no further spending on the product will occur. Phase IIB is expected to cost $20 million. Phase III is estimated to cost $250 million, split equally between the two years of the phase. Registration with the FDA usually costs about $5 million.

Timing for Development

It will take four years to bring BSX-001 to market, and one year to complete Phase IIB. Phase III normally takes about two years, while the registration with the FDA should take a year.

Market Potential

Sales potential for a product is based on factors such as the price, the frequency of dosing, and size of the market place. Key assumptions from the marketing department are provided below to determine peak sales. Assume the company has access to the US market only.

- Size of US Population: 310,000,000. Assume population size remains flat.
- Assume 3.4% of the population meets the criteria for refractory depression. Of this group, it is safe to assume that only about 75% will be properly diagnosed with the condition. Unfortunately not all Americans have access to pharmaceuticals and of those not all payers (insurance, Medicare, etc.) will ultimately consider paying for BSX-001. Assume 80% of those seeking the product will be able to afford it via insurance or other means.
- While CSP believes BSX-001 will be the best product on the market at the time it launches, there will still be a great deal of competition. At this time the sales group believes it can capture 5% of the potential market share. 95% will be taken by competitors.
- The marketing team believes a wholesale price of $8.00 per day of treatment is reasonable for it to be competitive with other branded products in the market.
- While depression is a chronic illness, most patients will only stay on the product for a limited time. In many cases they will become dissatisfied with the routine of taking daily pills or they will switch to other medications to see if they can obtain better results. To account for these factors, assume this reduces the population interested in BSX-001 by half.

Sales Growth & Patent Life

Initially, CSP and Hillebrand cannot be expected to capture the peak sales due to lack of familiarity with BSX-001 among doctors and patients. Assume sales of BSX-001 will start at $150MM in the first year of launch and grow at a rate of 20% a year until it reaches peak sales approximately six or seven years from the launch date. As with most small-molecule pharmaceuticals, BSX-001 will lose nearly all of its sales once the product loses patent protection. For analysis purposes, assume BSX-001 will have ten years of patent protection after it is launched and there are no more sales after the patent expires.

Cost of Capital

CSP uses a 10% hurdle rate for all new investments. All new investments are required to achieve this level of expected return.

Working Capital & CAPEX

Working capital will need to be built to support the compound once it launches. Assume this working capital investment will be required in the year of launch and will be liquidated and converted to cash entirely in the last year of sales. $50MM of Inventory and $20MM of accounts receivable will need to be built. In addition, the company is expected to have $10MM of accounts payable. Assume sales growth will not require any additional working capital

investment. All production can be completed using existing equipment. Thus, CapEx and accordingly depreciation are expected to be negligible.

Timing of Cash Flows

It is currently December 2012 and all future investments will start in January 2013. Assume that spending on each phase occurs at the beginning of the year. Thus, costs associated with Phase IIB would be immediate, costs associated with Phase III will occur in exactly 1 and 2 years and regulatory costs will be incurred in exactly 3 years. Assume any revenue from drug sales will begin in exactly 4 years.

Sunk Cost

To date, $20 million has been spent in the development of BSX-001.

Other Key P&L Assumptions

BSX-001 is in an early stage of development, so high-level benchmark assumptions should be used to value the program at this time. All figures are as a percentage of sales. Aside from the previously discussed clinical trial costs, no other costs need to be included.

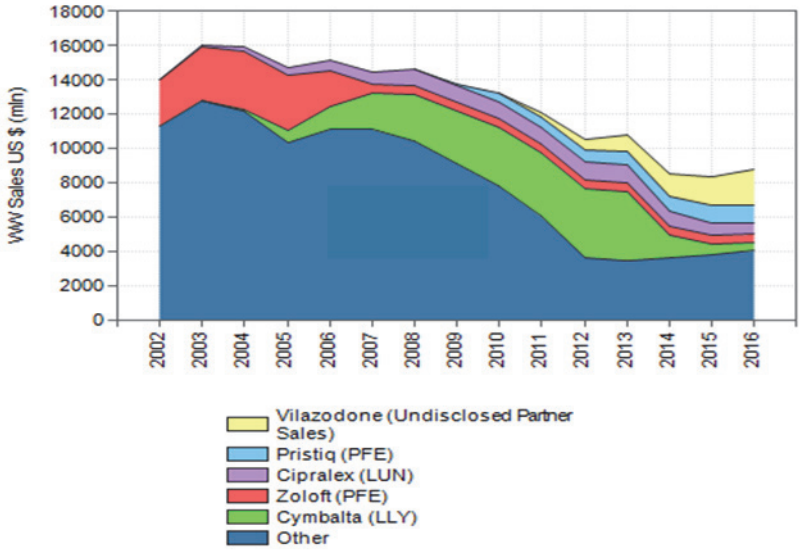
Exhibit 2. Cost Breakdown

Cost	Percentage of Sales
Cost of Goods Sold	10%
Selling	10%
Marketing	5%
Medical Affairs	2%
Other General and Administrative Costs	2%

Tax Rate

The company's tax rate is 35%.

Figure 2. Competitor Overview Excluding BSX-001



Source: Public Filings and EvaluatePharma

CHARLES IN THE HOT SEAT

Scientists at CSP have been working on BSX-001 for several years. There is a great deal of emotional commitment to products in development and many scientists feel that BSX-001 needs to move forward to show the company's achievement in this area of development.

Charles has an upcoming meeting with the head of portfolio finance at the parent company. At this meeting, he will need to clarify the case for continued investment in BSX-001. In prior meetings with the parent company, several executives expressed skepticism that it would be worth investing hundreds of millions of dollars to bring a new drug into the already crowed depression marketplace. Some of these executives have stated reservations about continued investment due to the risks associated with global economic uncertainty and healthcare reforms. They felt that since BSX-001 would be a premium priced product, cost reduction efforts in the legislation may diminish the market opportunity for BSX-001. Charles is feeling pressured to do his best to represent the dozens of employees at CSP.

Some of the emotional attachment to BSX-001 at CSP may be attributable to the fact that some feel there are ethical considerations associated with helping patients with the disease. These people feel obligated to go forward with the project even if it is not very profitable because the drug will help some people suffering from depression. These individuals point out that other firms sell HIV/AIDS medications at or below cost because it is simply the right thing to do. In preparation for the meeting with financial representatives at the parent company, these employees encouraged Charles to emphasize this point.

YOUR ASSIGNMENT

At Charles' presentation, financial viability of the product is considered of key importance. Your assignment is to help Charles Sellers complete an analysis of the decision to make continued investments in BSX-001. A draft analysis has been requested using some information above that have been emailed to you in the past few hours. The core of the analysis will be a valuation of BSX-001 using an expected net present value (NPV) analysis. Since Charles will need to present his analysis to executives at the parent company who are very likely to ask difficult questions, be sure to consider what other potential risks and opportunities could affect the decision.

To account for the uncertainly posed by each phase of clinical development (Phase IIB, Phase III and regulatory approval), you will need to use a decision tree to determine different scenarios. By following this approach, you will be able to weight (using probabilities) the NPV of each outcome by its likelihood of occurring. For example, if the product fails in its current phase, only the current phase's costs should be included and future costs and revenues should be excluded. If the product makes it to market, all of the costs must be included.

Address the following in your report:

1) The NPV of BSX-001.
2) Perform a sensitivity analysis on certain key assumptions, such as the proportion of the market captured by BSX-001 (initially estimated by the marketing team to be 5%). What assumptions are most critical? Does the importance of certain assumptions suggest that the formulation of these assumptions should be studied in more detail?
3) A colleague who previously worked in venture capital thinks an analysis based on a decision tree has too many assumptions and will be too complex for executives to understand. He suggests developing a NPV analysis based only on a success scenario and applying a much higher discount rate of 35%. Does this approach have merit?
4) Since the parent company wants to earn at least a 10% return on all investments, Charles was asked to use a 10% discount rate. In what cases might the use of a 10% discount rate for *all* prospective investments mislead financial managers about the attractiveness of a project?
5) If the financial viability based on NPV analysis is less than compelling, might ethical considerations (the unmet medical needs of patients) merit additional investment in BSX-001?

ENDNOTE

[1] The National Institute of Mental Health provides good summary information about depression. http://www.nimh.nih.gov/health/topics/depression/index.shtml

MANAGING SHAREHOLDER VALUE IN POST-CRISIS TIMES: A CASE STUDY OF COMMUNITY BANK

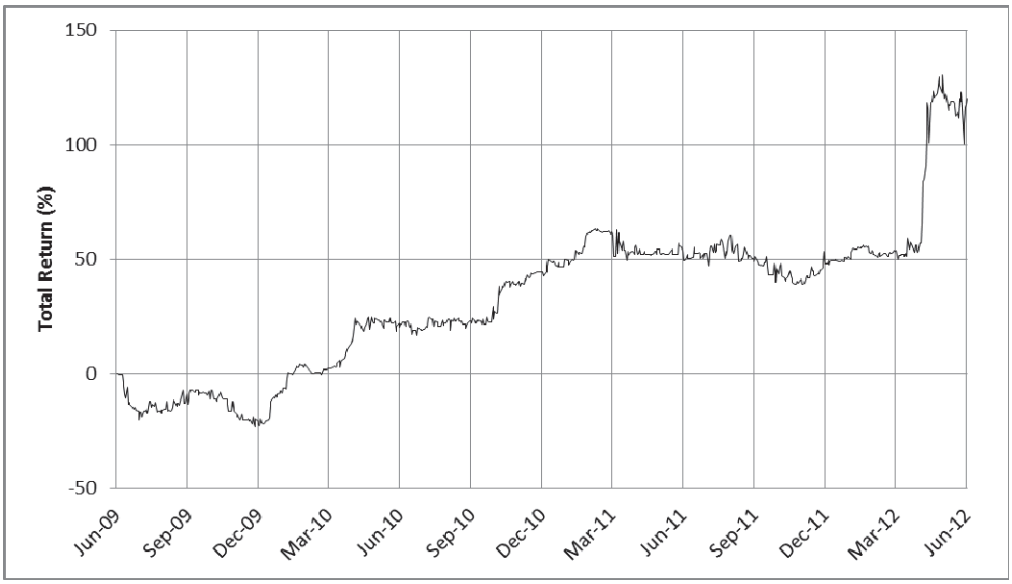
Victoria Geyfman, Bloomsberg University of Pennsylvania
John Walker, Kutztown University of Pennsylvania

Every several years, Community Bank schedules board retreats where the CEO and bank management have a chance to discuss the bank's performance, challenges and opportunities they face. It was June of 2012 and John Dollar, the CEO of Community Bank[1], was reminiscing about the last retreat in 2008 and how the times have changed since then. He recalled their emergency meeting hastily arranged by his secretary Amy Miller because the board members wanted to learn about the impact of the credit crisis on their bank. They were anxious to find out what the crisis meant for their bank, whether Community Bank was in position to sustain its operating performance and maintain safe capital levels to endure the crisis and, what was already apparent, the ensuing difficult economic slowdown. John met with his board and was able to convince them that Community Bank was in good financial health to withstand the turmoil in the market. As Dollar was preparing for the present retreat, he examined the bank's market performance, its fundamentals, and industry trends. The bank's stock performed very well over the last three years, and John believed that the shareholders should be satisfied with the dividends and share appreciation since 2008. Yet, he also knew that inevitably his board would ask questions about continuing performance in this challenging post-crisis operating environment. Mindful of recent industry consolidation, the board would also want to know whether selling the bank to another bank may be a good option. With these thoughts, he set about reviewing and analyzing the bank's recent market performance and key fundamentals. He had to present an objective evaluation of the bank's performance relative to other banks in the industry and to highlight areas that should be addressed for improvements in the strategic planning process.

COMMUNITY BANK'S MARKET PERFORMANCE

What is the best way for an investor to fairly evaluate a firm's stock performance? Is it sufficient to focus on the most recent performance to assess possible price appreciation or should an investor take a longer view and consider dividend yield, which may be a significant component of total return? Since Community Bank usually held its board retreats every three years, the CEO decided to examine the bank's stock performance over the same time period, between 2009 and 2012. John noted that while the stock delivered an impressive cumulative total return for the three-year period (Figure 1), the trend was anything but steady.

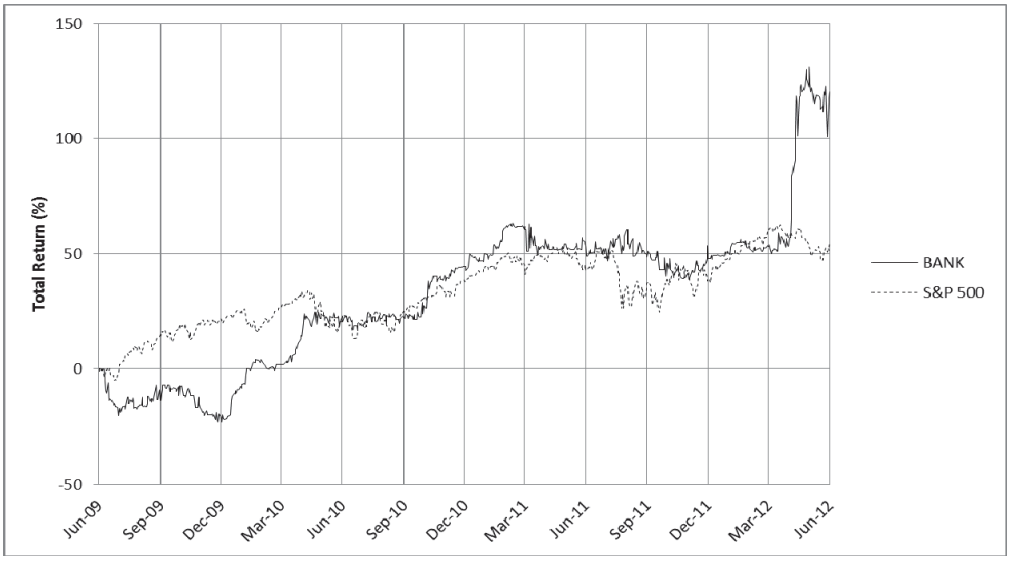
Figure 1. Community Bank's Three-Year Stock Performance (Total Return)



Source: SNL Financial

In addition to deciding on an appropriate timeframe, the CEO needed to identify appropriate benchmarks for performance comparisons. For the three years shown in Figure 2, the bank's stock was up 120.32 percent on a cumulative basis (solid line), while the S&P 500 cumulative return was 54.72 percent (dashed line).

Figure 2. Community Bank's Stock Performance Comparison to the S&P 500



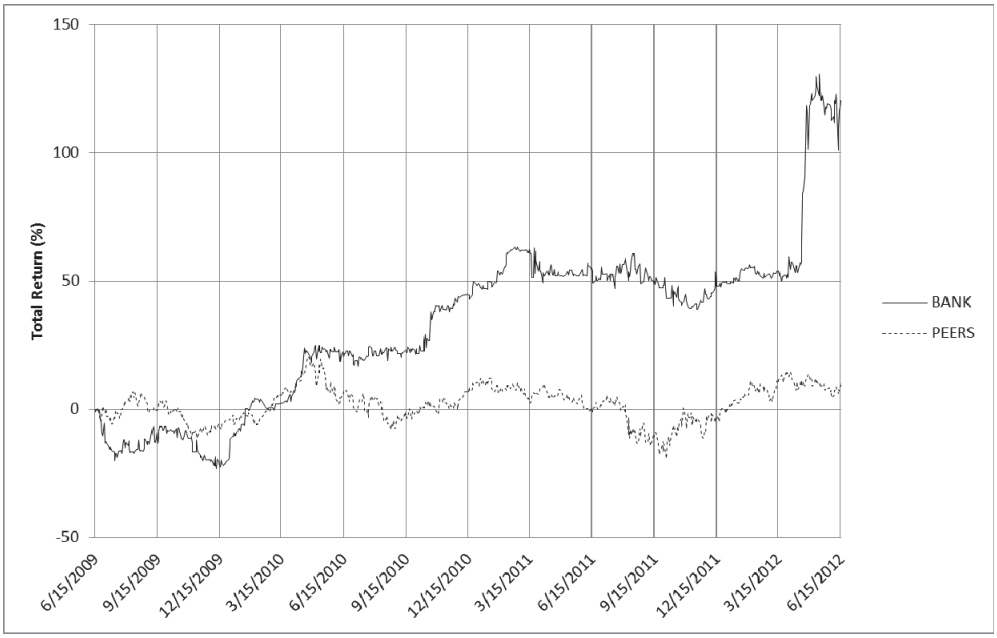
Source: SNL Financial

However, Dollar recalled his conversations with individual board members when they mentioned that while the comparison to the S&P 500 was valid in that it told investors how a

stock compared to the overall market, it did not tell them how the stock compares to the bank's peers. Therefore, John included in his analysis the comparisons with the bank's peer group. Industry analysts, regulators, and practitioners select banks' peers based on the amount of assets on the balance sheet. This is because operating performance, bank efficiency, and the general business model for a large bank is different than that for a community bank. Community Bank belonged to a peer group of banks with assets between $1 billion to $5 billion, and John decided to use SNL Financial to compile market information for this group.[2]

The peer group's total return since 2009 was 9.66 percent (Figure 3). As impressive as these comparisons may be, as a student of finance John knew that he could not present total returns without reporting on the company's risks. Often, an individual firm has a more volatile return pattern than the index and that is no surprise. The S&P 500 reflects the aggregated returns for 500 companies; thus, there is a diversifying effect reflected in the total return profile for the index. Likewise, the peer index is comprised of 149 banks and it captures sector risk while firm-specific risk is diversified among many banks.[3] In contrast, the time series of cumulative total return for the individual bank reflects the market risk, sector risk, and firm-specific risk on a nondiversified, stand-alone basis.

Figure 3. Community Bank's Stock Performance Comparison to its Peers



Source: SNL Financial

The CEO recalled that Community Bank once used the services of a consultant who told the bank's board of directors that Community Bank "was a high-performing bank operating with low risk." Yet, he did not say how he was measuring the bank's risk. John wanted to make sure to address the issue of risk during the board retreat. He got the materials from the OCC's *Bank Supervision Process Handbook*, which identified main categories of banking risk, including operational, compliance, credit, interest-rate, liquidity, and strategic risks (OCC, 2007).

One of the most important measures of bank risk is reflected in its capital ratios. At the end of 2011, Community Bank's tangible-equity-to-tangible-assets ratio placed the bank in the

23rd percentile among the peers for its capital cushion position. The CEO's job is to interpret these results for the board in terms of financial leverage and its impact on operational risk.

Another important measure of risk is the firm's market risk as measured by its beta. Bank analysts can perform their own estimations of beta through regression analysis of bank stock returns versus market returns, using a proxy such as the S&P 500 index. Alternatively, one can use a three-year beta that is reported by SNL Financial. The three-year beta estimate for Community Bank was 0.16.[4] The point estimate for the peer group's three-year betas was 0.76, with a lower limit of 0.67 and an upper limit of 0.84 based on a 95 percent confidence interval. John included this important information on the bank's systematic risk in his reports to the board.

He also included information on the bank's credit risk, proxied by the bank's nonperforming assets ratio and charge-offs. Dollar noted that Community Bank's nonperforming assets were about 57 percent to 61 percent less than its peers and the net charge-offs were 27 percent to 49 percent less during the post-crisis period of 2009–2011. These favorable variances suggested that Community Bank had taken much less credit risk than its peers.

FUNDAMENTAL ANALYSIS OF THE BANK

One of the important components of the presentation to the board is an analysis of a Uniform Bank Performance Report (UBPR), which provides a plethora of statistics that can be used to assess a bank's performance and as "an aid in evaluating the adequacy of earnings, liquidity, capital, asset and liability management, and growth management" (FFIEC, http://www.ffiec.gov/UBPR.htm). With the help of the UBPR, bank industry analysts, regulators, and practitioners can perform an effective assessment of the bank's ROE by looking at six fundamental areas: (1) net interest income, (2) net overhead, (3) capital, (4) the balance between earning/nonearning assets, (5) provisioning for loan losses, and (6) the tax burden. While these measures offer a balanced snapshot of a bank's performance, they are static measures that should be supplemented by a discussion of the bank's growth trends. Tables 1 through 6 present information on these measures for 2011, the last full year of accounting data available before the retreat. Updated measures for first quarter 2012 are presented in the next section.

Table 1 shows Community Bank's return on average assets (ROAA) and return on average equity (ROAE) for 2011, both on a core and noncore basis, along with the 50th percentile values for the bank's peer group. All balance sheet data were based on average values as banks' levels of assets and equity are normally growing quickly, even from one quarter to the next.

Table 1. Return Comparisons for 2011

	50th Percentile	Bank Value	Percentile Ranking
Core ROAA	0.70%	0.82%	61st
ROAA	0.76%	0.90%	63rd
Core ROAE	6.77%	9.92%	70th
ROAE	7.44%	10.78%	75th

Source: SNL Financial

Table 1 shows that Community Bank's ROAA was in the 63rd percentile, i.e., at least 63 percent of the bank's peers had an equal or lower ROAA while at least 37 percent had an equal or higher ROAA.[5] Community Bank's core and noncore ROAAs had relatively lower rankings

than its two ROAE measures, which was the result of its capital structure decision, specifically its leverage ratio. According to the DuPont equation, a bank's ROAE is determined by its ROAA performance and the degree of leverage, which is reflected in its equity multiplier. As is common with other banks, Community Bank had a policy on how much leverage was permissible. John decided to inform the board on the bank's need to revisit their capital policies to ensure that they still met the new guidelines under the recently proposed Basel III.

Table 2 presents a comparison of the fundamentals behind the bank's ROAA and ROAE. A bank's revenues are a combination of net interest income and noninterest income. John wanted to point out to the board that the net interest spread—calculated as the difference between a bank's yield on earning assets and cost of funds—was close to the median (50th percentile of the distribution), which led to the question of whether the results were caused by a near-median yield on earning assets (YEA) and a near-median cost of funds (COF), or some other combination of YEA/COF. The answer to this question was important if the bank wanted to generate ideas for improving its net interest income performance.

Table 2. Net Interest Income Analysis for 2011

	50th Percentile	**Bank Value**	**Percentile Ranking**
Margin	3.79%	3.81%	51st
Spread	3.57%	3.58%	51st
YEA	4.70%	4.98%	73rd
COF	0.96%	1.27%	21st

Source: SNL Financial

In terms of the rankings, it is important to point out that while with most performance statistics, *higher* rankings are better than lower rankings, such as in the case of ROAA, ROAE, and margin, this is not so for other statistics, such as COF and the efficiency ratio. All else equal, a bank wants a *low* COF and a low percentile ranking is preferred. Thus, instead of reporting the original 79th percentile ranking for COF, Table 2 shows the ranking of 21st percentile (100th – 79th), which enables an analyst to look at all performance numbers in the same way—higher percentile rankings are better than lower.

Community Bank appeared to have an above-median YEA and a below-median COF. Was this a result of setting higher-than-average rates on their loans or having a higher-than-average allocation to higher-risk lending, such as commercial loans? In order to maintain high performance, the bank's management team needs to know how they are achieving success and then build on that formula. This can often be very challenging because management is working within the economic reality of supply and demand of loanable funds. If a bank's cost of funds is high, this points to an expensive mix of liabilities and/or rates that might be too generous relative to the local deposit market. Yet, banks are under constant pressure to grow their deposit base in order to obtain funding for loans, so higher-than-average deposit rates—if that is the case—can be explained, if not justified, by the need for funding. The deposit offerings of community banks are fairly simple, i.e., virtually all banks offer demand deposit accounts (DDAs), savings accounts, negotiable order of withdrawal accounts (NOWs), money market deposit accounts (MMDAs), and certificates of deposit (CDs) with various maturities and features, such as "step-up" CDs. The DDAs are the preferred funding source as a bank pays zero interest for these funds. The first thought that a banker might have if the COF is high is to lower the rates it pays

on deposits. However, with some fundamental understanding of economics and the forces of supply and demand, it is clear that if the bank were to offer lower rates, depositors may choose to supply less funds to the bank, which could choke off the funding needed for loan growth. Of course, the resultant reduction in supply depends on the elasticity of supply to the changes in rates.

Another reason a bank might have a high cost of funds is when it depends more heavily on borrowings relative to other banks. Borrowing from the Federal Loan Home Bank system and other sources tends to come with higher rates than those paid on deposits. At Community Bank, the level and structure of borrowings were reasonable. Unfortunately, they have found that they had to pay higher-than-average rates to attract the volume of deposit funding needed to keep pace with their asset growth. At least as of 2011–2012, the higher loan yields that they were achieving offset the higher deposit rates they were paying.

Community Bank's net overhead—the difference between a bank's noninterest expense and noninterest income—positioned the bank well above the median for the peer group (Table 3). High noninterest income was a nice complement to the bank's near-median margin. The CEO wanted to remind the board about successes in the noninterest income category, but he also observed that the bank was not as successful at controlling its noninterest expenses. For years, the bank had worked hard at growing noninterest income. Community Bank's management team attended a number of conference sessions targeting community banks to help them in this area. They learned that it was possible for board members to lose track of the fact that in order to generate noninterest income, the bank usually had to incur incremental costs. For example, if a bank launched a successful financial planning business or an insurance business, there were costs associated with these new businesses that impacted noninterest expenses. Generally, as a bank adds to its portfolio of noninterest income businesses, the management needs to ask whether the incremental revenues offset the incremental costs, and if a bank cannot improve its net overhead number when it adds noninterest income-generating businesses, the value of these businesses needs to be questioned. The only sensible justification for a noninterest income-generating business that does not cover incremental noninterest expense is that it leads to potential cross-selling opportunities that produce enough incremental revenue to cover the cost.

Table 3. Net Overhead and Efficiency Analysis for 2011.

	50th Percentile	**Bank Value**	**Percentile Ranking**
Net Overhead	2.12%	1.95%	61st
Noninterest Income	0.94%	1.28%	76th
Noninterest Expense	3.10%	3.23%	45th
Efficiency Ratio	65.04%	66.05%	44th

Source: SNL Financial

The Community Bank's net overhead ratio was ranked above median, while its efficiency ratio fell below the median (the *lower* the overhead and efficiency ratio the better). Community Bank's efficiency ratio did not rank as high as its net overhead ratio because bank's net interest income was very close to the 50th percentile. Typically, community banks' revenue streams are heavily tilted toward the net interest income component of revenue. Community Bank was no exception. Its split between net interest income and noninterest income for 2011 was 72/28 on an unadjusted basis and 74/26 on a fully taxable-equivalent (FTE) basis.[6] This means that the

bank's overall revenue stream was more than 2.5 times more dependent on net interest income than noninterest income. For comparison, the net interest income/noninterest income split for Community Banks' peers was 78/22 on both an unadjusted and a fully taxable-equivalent (FTE) basis, which means that the peers were even more reliant on net interest income than Community Bank.

In terms of capital adequacy, Table 4 labels the equity-to-assets ratio with an "R" for regulators and an "S" for shareholders to indicate that regulators and shareholders often have different perspectives on capital. Regulators want to minimize the payout from the Bank Insurance Fund (BIF), and the more capital a bank has relative to assets, the lower the likelihood of insolvency and the need for BIF payments. On the other hand, the shareholders want a high return on equity. For a given ROAA level, the more leveraged the bank is, the higher the ROAE. Clearly, shareholders do not want a bank to operate on the edge of insolvency; however, if a bank holds "excess" capital, this puts downward pressure on the ROAE. Since the passage of Basel III, bankers are concerned that they will need to boost their capital ratios to levels that will make it difficult to produce the ROAEs needed to generate stock returns comparable to other sectors of the economy. Community Bank's Tier 1 ratio was in the 39th percentile, which was considered thinly capitalized from the regulator's perspective.

Table 4. Capital Analysis for 2011

	50th Percentile	Bank Value	Percentile Ranking
Equity/Assets (R)	9.68%	7.85%	20th
Equity/Assets (S)	9.68%	7.85%	80th
Tier 1 Equity (R)	13.94%	12.94%	39th

Source: SNL Financial

Most community banks are termed "brick and mortar banks" unless they are operated as an Internet bank. But even banks that collect deposits and make loans through the Internet need some office space. Thus, all banks will have some assets that fall into the category of "nonearning," but the objective is to minimize the amount of assets that are not generating income. The bank's level of earning assets, provisioning for bad loans and its tax burden are reported in Table 5. All three ratios are well above the 50th percentile and seem satisfactory.

Table 5. Analysis of Other Performance Measures for 2011

	50th Percentile	Bank Value	Percentile Ranking
Provisioning	0.48%	0.37%	61st
Tax Burden	27.40%	24.65%	60th
Earning Assets	92.51%	93.36%	65th

Source: SNL Financial

Finally, building shareholder value depends heavily on the growth rates of the firm's earnings and dividends, often reported on a per share basis (EPS and DPS). Community Bank's five-year compound annualized growth rates (CAGR) for both EPS and DPS, along with five-year CAGRs for assets, loans and deposits, are reported in Table 6. While the EPS and DPS data

were satisfactory, the balance sheet statistics revealed a growth problem on both the lending and funding side of the bank's balance sheet, but more so with deposits. John Dollar planned to discuss with the board strategic initiatives that Community Bank might undertake in order to improve the situation. These and other issues were on the CEO's mind as he put finishing touches on his report for the board members.

Table 6. Five-Year Growth Rates for Key Categories

	50th Percentile	Bank Value	Percentile Ranking
EPS	–3.14%	4.80%	76th
DPS	–13.23%	4.56%	82nd
Assets	6.28%	4.82%	41st
Loans	4.44%	2.90%	42nd
Deposits	6.56%	2.01%	19th

Source: SNL Financial

COMMUNITY BANK'S NEXT-YEAR PERFORMANCE AND TRENDS

In addition to examining the previous year's performance measures, bank management and the board wanted to look at the numbers for the first quarter of the next year in order to quickly detect any changes and to try to identify the causes, especially if a particular statistic was weakening. While some numbers were preliminary on the day of the retreat, the CEO updated the report to include numbers for the first quarter of 2012, including changes to the percentile rankings. The performance statistics for 1Q12 (shown in Tables 7 through 11) were quite different than the prior year's performance.

Community Bank's acquisition during the first half of 2012, resulted in heavy due diligence expenses in 2011, but did not affect the cost structure reported in the first quarter of 2012. This resulted in significant improvements in ROAA and ROAE performance, as evident in the changes in percentile rank since 2011. However, the board would likely wonder whether this could be sustained in the long-term.

Table 7. Return Comparisons for 1Q12

	50th Percentile	Bank Value	Percentile Ranking	Change in Rank
Core ROAA	0.79%	1.28%	88th	+27
ROAA	0.81%	1.23%	85th	+22
Core ROAE	7.90%	15.31%	96th	+26
ROAE	7.99%	14.73%	95th	+20

Source: SNL Financial

The updated analysis of net interest income in Table 8 shows that the bank's margin and spread rankings changed in opposite directions compared to 2011, while the improved results reflected in Table 9 were consistent with high due diligence costs incurred during 2011 as mentioned above. The CEO needed to explain to the board what these changes would mean for noninterest income sources and the bank's cost structure in the future.

Table 8. Net Interest Income Analysis for 1Q12

	50th Percentile	Bank Value	Percentile Ranking	Change in Rank
Margin	3.76%	3.74%	49th	–2
Spread	3.60%	3.73%	58th	+7
YEA	4.56%	4.91%	81st	+8
COF	0.75%	1.06%	21st	+0

Source: SNL Financial

Table 9. Net Overhead and Efficiency Analysis for 1Q12

	50th Percentile	Bank Value	Percentile Ranking	Change in Rank
Net Overhead	2.03%	1.56%	79th	+18
Noninterest Income	0.96%	1.37%	79th	+3
Noninterest Expense	3.06%	2.93%	58th	+13
Efficiency Ratio	65.13%	59.38%	71st	+27

Source: SNL Financial

When John Dollar was preparing for the board retreat, the implementation stage of Basel III in the U.S. had not yet started. Thus, the bank had not experienced any dramatic changes in its capital structure, nor did it expect to see many changes due to the new law. Indeed, industry analysts and bankers had contended that it would be unfair and too onerous to apply international capital standards to community banks. Several years earlier, the bank had raised preferred capital through the government's Troubled Asset Relief Program (TARP), and then later repaid this in full. Part of the paydown was funded by preferred stock issued through the government's Small Business Lending Fund.[7] Since then, the bank was operating at a reasonably strong capital level, but had not yet taken any direct steps to raise capital to meet anticipated new guidelines outlined by Basel III other than regular earnings retention.

Table 10 confirms that the bank's capital position at the end of the first quarter of 2012 was what bank management would expect and hope to see in a bank that was within its target capital boundaries. Stability in capital ratios served as evidence of a bank that was managing its capital well in terms of retaining enough to fund growth, provisioning enough to cover bad loans, and paying dividends.

Table 10. Capital Analysis for 1Q12

	50th Percentile	Bank Value	Percentile Ranking	Change in Rank
Equity/Assets (R)	9.64%	8.16%	24th	+4
Equity/Assets (S)	9.64%	8.16%	76th	–4
Tier 1 Equity (R)	14.07%	13.28%	41st	+2

Source: SNL Financial

Table 11 includes the remaining fundamentals updated for the first quarter of 2012, which the CEO decided to include in the information packet for the board members.

Table 11. Analysis of Other Performance Measures for 1Q12

	50th Percentile	Bank Value	Percentile Ranking	Change in Rank
Provisioning	0.32%	0.15%	69th	+8
Tax Burden	29.72%	30.33%	48th	−12
Earning Assets	92.49%	93.82%	71st	+6

Source: SNL Financial

In sum, as Community Bank's CEO, John Dollar, was preparing for the board retreat in early summer of 2012, he set out to answer the following questions: "Was the bank creating value for shareholders; was the bank headed in the right direction; and should the bank consider selling itself?" Many banks saw their performance significantly affected by the financial crisis and the "Great Recession" that followed. For community banks, loan demand was slow to recover, and interest rates were historically low. There had also been the growing belief that banks would need to raise their capital levels in order to meet new regulatory requirements. Armed with the extensive analysis of industry trends, market performance and accounting fundamentals, Mr. Dollar wondered whether he would be able to answer all the questions posed by Community Bank's board of directors.

ENDNOTES

1. The names of the bank and CEO have been changed to conceal the identity of the actual case participants.
2. SNL Financial collects, standardizes and disseminates corporate, financial, market and M&A data—plus news and analysis—for the following industries: banking, financial services, insurance, real estate, energy and media/communications.
3. The SNL U.S. Bank $1B–$5B Index includes all major exchange (NYSE, NYSE Amex, and NASDAQ) banks in SNL's coverage universe with $1B to $5B in assets.
4. A one-year beta coefficient for Community Bank is 0.53 as reported by SNL Financial.
5. This definition is consistent with Anderson, Sweeney, and Williams (2012). In contrast, Ott and Longnecker (p. 87, 2010) say, "The p^{th} percentile of a set of n measurements arranged in order of magnitude is that value that has at most p% of the measurements below it and at most $(100 - p)$% above it.
6. When comparing net interest income to noninterest income, SNL Financial reports unadjusted net interest income and FTE net interest income. The FTE net interest income includes interest income, on a (fully) tax-equivalent basis, less interest expense.
7. The acceptance of TARP funds among community banks was common. In the case of Community Bank, the CEO publicly stated at the time his bank accepted TARP funds that, "The program is a voluntary initiative designed primarily for healthy financial institutions to build capital and increase the flow of credit to support the economy."

REFERENCES

Anderson, D. R., Sweeney, D. J., & Williams, T. A. (2012). *Modern Business Statistics with Microsoft Office Excel* (4th ed.). Mason, OH: South-Western Cengage Learning.

Federal Financial Institutions Examination Council. (2014, June). Uniform Bank Performance Report (UBPR): http://www.ffiec.gov/UBPR.htm.

Office of the Comptroller of the Currency. (2007). Bank Supervision Process: Comptroller's Handbook, September 2007. Washington, DC: U.S. Government Printing Office.

Ott, R. L. & Longnecker, M. (2010). *An Introduction to Statistical Methods and Data Analysis* (6th ed.). Belmont, CA: Brooks/Cole Cengage Learning.

DOLLAR TREE, INC. AND CALPERS: THE PROXY FIGHT THAT NEVER ENDS

Woody D. Richardson, University of Mary Washington
Michael H. Schellenger, University of Wisconsin-Oshkosh

The case chronicles the 2009 proxy fight between Dollar Tree, Inc. and the California Public Employees' Retirement System (CalPERS). The fight is seen through the eyes of an average shareholder, Jack Herman, who has followed the previous proxy fights in 2007 and 2008. Jack is faced with the decision of how to vote his proxy concerning the latest CalPERS proposal to 'declassify' Dollar Tree's Board of Directors. In order to make this corporate governance decision, Jack must analyze the competing claims of CalPERS and Dollar Tree related to the company's financial performance.

Jack Herman watched as his granddaughter skipped up the drive with an armload of mail. As she approached he could hear her singing her latest favorite song, "this is the song that never ends, yes it goes on and on my friend…" As she deposited the mail in his lap and skipped inside he leafed through the sweepstakes and credit card offerings and opened the large packet from Dollar Tree announcing the agenda for its June 18, 2009 annual meeting. There it was listed as the second bullet point - another proposal from the California Public Employees' Retirement System (CalPERS) requesting that stockholders vote to "declassify" the Dollar Tree Board of Directors. "Wow!" he muttered to himself. "These guys are like a bulldog on a bone, or maybe my granddaughter was singing about this proxy fight." CalPERS had submitted the same proposal at the 2008 annual meeting. Although Jack was getting tired of reading the same claims yet again, he admired the tenacity with which CalPERS stuck to its criticism of Dollar Tree's corporate governance practices. Except for the date the wording in this year's proposal was exactly the same as the 2008 proposal.

> RESOLVED, that the shareowners of Dollar Tree Stores, Inc. ("Company") ask that the Company, in compliance with applicable law, take the steps necessary to reorganize the Board of Directors into one class subject to election each year. The implementation of this proposal should not affect the unexpired terms of directors elected to the board at or prior to the 2009 annual meeting. (Schedule 14A, Proxy Statement (2009), p. 40).

HISTORY OF THE PROXY VOTES

As Jack sat in his swing on the front porch, he reflected on the history (see Table 1) leading up to this year's meeting. Early in 2007, CalPERS placed Dollar Tree on its Focus List of underperforming companies, and put forth a proposal to eliminate Dollar Tree's supermajority

vote requirement (at least 66%) to change the company by-laws. CalPERS argued that a supermajority hurt the performance of the firm.

---

*This case was developed for classroom purposes, and is not intended to reflect effective or ineffective management. The case was developed from secondary sources and any views expressed are those of the authors. Review copy for the *Journal of Finance Case Research.*

Table 1. Timeline of Dollar Tree and CalPERS Interaction

Date	Interaction
September 2006	CalPERS initiated discussions with Dollar Tree regarding supermajority voting, classified board terms, and granting shareholders the right to call special meetings or to act by written consent.
March 2007	CalPERS included Dollar Tree on its "Focus List" of underperforming companies with poor corporate governance practices.
March 2007	Dollar Tree announced the creation of a Lead Director and adopted a majority voting requirement for the election of directors who run unopposed. However, Dollar Tree's board declined to support CalPERS' call for the three changes initially discussed in September.
May 2007	CalPERS filed a proxy to eliminate the Supermajority Vote Requirement and Dollar Tree urged shareholders to vote "no."
June 2007	Just over 64% of shareholders voted to remove the Supermajority vote requirement.
March 2008	CalPERS released its Focus List sans Dollar Tree.
May 2008	CalPERS filed a proxy seeking to "declassify" Dollar Tree's board by requiring all directors to stand for election on an annual basis. Dollar Tree urged shareholders to vote "no", but at the same time introduced its own proposal to eliminate the supermajority vote requirement.
June 2008	CalPERS issued a press release announcing it would withhold its votes for Macon Brock, Jr., Founder and Chairman of the Board since 2001.
June 2008	Dollar Tree announced that Macon Brock was reelected to the board and the company's proposal to remove the supermajority vote requirement was approved. The Virginia Pilot reported that the vote to declassify the board received a majority vote and that Dollar Tree's management would take it under advisement.

Sources: **CalPERS Press Releases, Dollar Tree Proxy Statements, 2007-2009; and *The Virginian-Pilot*.**

Exhibit 1 contains support material that accompanied CalPERS' 2007 proposal to Dollar Tree shareholders.

Exhibit 1.
CalPERS 2007 Focus List Company At-A-Glance
Dollar Tree Stores, Inc. (DLTR) – Chesapeake, Virginia.

Total Return Performance for Selected Periods Ending 02/28/2007

Time Period ending 2/28/07	Dollar Tree Stores, Inc.	S&P Composite 1500	Relative to S&P 1500 Index	Multiline Retail S&P Industry Index	Relative to Peer Index
5 years	6.46%	43.42%	-36.96%	81.64%	-75.18%
3 years	10.39%	31.62%	-21.23%	53.24%	-42.85%
1 year	24.40%	11.62%	12.78%	28.02%	-3.62%

Source: **Schedule 14A Proxy Statement, 2007.**

Contrary to CalPERS, the Dollar Tree Board asserted that, "However, unlike many companies that CalPERS targets, Dollar Tree has not lost value for long-term shareowners, has performed very well relative to typical benchmarks and has strongly outperformed those benchmarks in the past three years." Exhibit 2 contains market return data from the May 17, 2007 Proxy statement that Dollar Tree provided to support its assertion that the stock had performed well and had performed well against various benchmarks.

Exhibit 2.
Total Return Performance Data Presented By Dollar Tree, Inc.

Time Period ending 5/17/2007	Dollar Tree Stores, Inc.	Dow Jones Industrials	S&P 500 Index	S&P 400 Midcap Index	S&P Retail Index
10 years	253.9%	82.5%	78.0%	229.1%	N/A
5 years	4.7%	30.2%	36.7%	36.8%	N/A
3 years	65.2%	36.0%	39.5%	59.1%	37.2%
1 year	56.2%	20.3%	19.1%	16.2%	12.8%

Source: **Schedule 14A Proxy Statement, 2007.**

Dollar Tree's board urged shareholders to vote against this proposal. At the June 2007 meeting approximately 64% of the shareholders voted to remove the supermajority requirement. Later that year, Dollar Tree announced it would put forth its own proposal to eliminate the supermajority vote at the 2008 meeting. Dollar Tree did not appear on CalPERS' Focus List for 2008. However, CalPERS called for declassifying Dollar Tree's staggered board elections in favor of annual elections for all Directors.

In a June 2, 2008 press release, CalPERS stated that it would withhold votes from Macon Brock, Jr. (Dollar Tree's founder and Chairman of the Board since 2001) and two additional directors standing for reelection at the June 19, 2008 annual meeting. The press release asserted

that Dollar Tree had earned a 24.21% return for the period April 30, 2003-08 and had underperformed the Russell 3000 index by 47.4 percent and the Russell Peer index by 13.9 percent.

At the 2008 meeting over 67% of the shares outstanding voted to hold annual elections for all Directors. Leading up to this year's meeting CalPERS announced it would withhold its votes for the three Directors (J. Douglas Perry, Thomas A. Sounders III, and Carl P. Zeithaml) up for re-election for their failure to implement the declassification proposal.

CALPERS' 2009 PROPOSAL

At first glance, Jack thought CalPERS' supporting statement accompanying Proposal No. 2 was basically the same as the arguments from 2008with one exception. CalPERS claim that Dollar Tree underperformed the Russell 3000 Index and the Russell Peer Index was not mentioned. As before, CalPERS argued that annual Directors who stand before shareowners for election each year were more accountable than those elected to three-year terms. This enhanced accountability would in turn improve the financial performance of the firm. Through the years CalPERS had cited a study finding that firms that appeared on the Focus List improved their financial performance in subsequent years, the "CalPERS Effect" (Anson et. al, 2003). Just as in the 2008 proposal, CalPERS cited staggered boards as one of six entrenching mechanisms negatively correlated with firm performance (Bebchuk, Cohen & Ferrell, 2006). Jack couldn't put his finger on another difference, but felt that something else was different. He pulled a folder from his filing cabinet to compare the proposals more closely to see if he was correct about there being something else. After studying each year's proposal for a few minutes he saw what he was looking for. In 2007, CalPERS' supporting statement said it owned nearly 1,000,000 shares of Dollar Tree stock, while the 2008 statement stated 800,000 shares while the 2009 statement stated 300,000 shares were owned.

DOLLAR TREE'S 2009 RESPONSE

Just as it had done in 2007 and 2008, Dollar Tree's Board argued that it had been continually improving its corporate governance practices thru the following means: separated the roles of the Chairman and CEO (2003), created a lead director and majority vote requirement for directors who run unopposed (2007), and in response to shareholders recommendation acted to remove the Supermajority vote requirement (2008) with the following explanation:

> The Board, in its continuing review of best practices in corporate governance and in response to input received from Dollar Tree shareholders, has evaluated the need for the supermajority voting provisions regarding the removal of directors and approval of certain other matters subject to shareholder vote. (Schedule 14a, Proxy statement, 2009, p. 46)

In its 2009 letter to shareholders, the Board further explained that a classified board structure was in the best long-term interest of shareholders in light of its responsible corporate

governance and strong stock price performance. A classified board prevented corporate raiders bent on short-term gains at the expense of long-term value for shareholders from seizing control of the firm. The board concluded that its current structure was beneficial to both the company and its shareholders and should be retained.

DOLLAR TREE'S HISTORY AND PERFORMANCE

In 1986 Doug Perry, Macon Brock, and Ray Compton came together to found the first Dollar Tree store in Dalton, Georgia. The three founders of this chain had come together while helping K.R. Perry to bring his K&K 5&10 stores (once known as Ben Franklin variety stores) to its success through the 1970s and 1980s as a chain of toy stores stretching across multiple states. In 1991, K&K was sold and the founders had their full attention on the dollar store concept. Dollar Tree went public in 1995 to gain capital to be used in expansions and acquisitions. Dollar Tree was traded on the NASDAQ under the symbol DLTR.

Upon going public the expansion and acquisition strategy was put into action. In 1996 Dollar Tree acquired Dollar Bill's, a chain based out of Chicago containing 136 stores. Then again in 1998, the company acquired Step Ahead Investments out of California, the owners of the 98 Cent Clearance Centers. The next to be purchased was the Only$One stores of New York in 1999. The same year the company hit its milestone of one billion dollars in sales. Dollar Express, which operated stores in six Mid-Atlantic states, was the next to be acquired in 2000.

In 2003 the company continued its acquisition strategy by purchasing Greenbacks, Inc, a dollar store chain based out of Utah with 100 stores. In 2003 Dollar Tree also built 183 stores and expanded or relocated 124 stores. Dollar Tree purchased Deal$ from grocery retailer SuperValu for $30.5 million in cash in March of 2006.

For the fiscal year ending January 29, 2009, Dollar Tree generated sales of $4.664 billion from its 3,591 stores resulting in net income of $229 million versus $4.242 billion in sales and $201 million in net income in 2008. From February 2007 to February 2008 Dollar Tree's stock price fluctuated from a low of $20.72 to a high of $45.98. Exhibit 3 contains financial data for Dollar Tree from 2005-2009. On June 4, 2009 the stock closed at $44.29 up from $37.01 a year earlier. Jack considered that to be pretty good stock performance, but then he had never bought into the CalPERS argument that Dollar Tree was an underperformer. Jack had always been impressed that Dollar Tree could maintain its performance while adhering to its $1.00 price point while its competitors (namely Dollar General and Family Dollar) allowed their prices to rise above $1.00.

Exhibit 3. Selected Financials for Dollar Tree, Inc.

Income Statement Data: (In 1,000s)	**January 29, 2009**	**February 2, 2008**	**February 3, 2007**	**January 28, 2006**	**January 29, 2005**
Net sales	$ 4,664,900	$ 4,242,600	$ 3,969,400	$ 3,393,924	$ 3,126,009
Gross profit	1,592,200	1,461,100	1,357,200	1,172,363	1,112,539
Selling, gen. & admin. expenses	1,226,400	1,130,800	1,046,400	889,124	818,988
Operating income	365,800	330,300	310,8000	283,239	293,551
Net income	229,500	201,300	192,000	173,918	180,250
Margin Data (as a % of net sales):					
Gross profit	34.3%	34.4%	34.2%	34.5%	35.6%
Selling, gen. & admin. expenses	26.4%	26.6%	26.4%	26.2%	26.2%
Operating income	7.9%	7.8%	7.8%	8.3%	9.4%
Net income	4.9%	4.7%	4.8%	5.1%	5.8%
Selected Operating Data:					
# of Stores at end of period	3,591	3,411	3,219	2,914	2,735
Gross square footage	38,500,000	36,100,000	33,300,000	29,238,000	21,416,000
Selling square footage	30,300,000	28,400,000	26,300,000	23,021,000	20,444,000
Selling sq. ft. annual growth	6.7%	8.0%	14.3%	12.6%	21.1%
Net sales annual growth	9.5%	6.9%	16.9%	8.6%	11.6%
Comparable store net sales	4.1%	2.7%	4.6%	(0.8%)	0.5%
Net sales per selling sq. ft.	$ 158	$ 155	$ 161	$ 156	$ 168
Net sales per store	$ 1,300,000	$ 1,300,000	$ 1,233,116	$ 1,183,000	$ 1,163,000
Selected Financial Ratios					
Return on assets	12.0%	11.0%	10.2%	9.7%	10.9%
Return on equity	20.5%	18.7%	16.4%	14.9%	16.5%
Inventory turns	3.8	3.7	3.5	3.1	2.9

Source: **Dollar Tree Stores, Inc. Form 10-Ks**

THE DEBATE

CalPERS was not the only critic of staggered board terms. Carl Icahn called the "hottest investor in America" by Fortune magazine, referred to staggered boards as "absurd" (Tully, 2007). Staggered terms required hostile takeover bidders to win seats in two elections to gain control of the board. For this reason, staggered terms were a potent anti-takeover weapon. In fact, one study found 70% of U.S. public companies staggered their board terms (Sidel, 2002). Icahn and others called for an end to staggered terms, and proposed that large shareholders have the right to call meetings where the whole board could be replaced by a majority vote of the quorum. Defenders of staggered terms, especially as related to hostile takeovers argued that proposals, such as Icahn's, stripped the board of any fiduciary duty by letting the shareholders

decide. Academics attempted to weigh in on the debate with mixed results (Plitch, 2004). In addition to the Bebchuk study cited by CalPERS in Proposal 2, each side in this debate selectively pointed to research supporting its position regarding corporate governance practices such as staggered board terms and financial performance measures. Faleye (2008) found that staggered boards reduced firm value and entrenched management by insulating them from market discipline. However, another study of firms that voluntarily destaggered their boards found no strong connection between a company's decision to destagger and firm performance (Ganor, 2007).

The Meeting Approaches

While Jack thought Dollar Tree was a rock-solid company with good governance practices, he wondered if annual elections would further enhance the firm's performance. In his reading he had noted the increasing number of proposals to declassify board structures. Based on this he wondered whether classified boards still served shareholder interests. Would annual elections be better? Was Dollar Tree's stock really underperforming? Which set of "facts" concerning the Company's stock performance were true, CalPERS' or Dollar Tree's? He set the proxy statement aside and decided to mull it over before completing his proxy vote.

REFERENCES

2007 Focus List Company At A Glance available at http://www.calpers.ca.gov/eip-docs/about/press/news/invest-corp/dollar-tree.pdf

Anson, M., White, T. and Ho, H. (2003). The Shareholder Wealth Effects of CalPERS' Focus List. *Journal of Applied Corporate Finance*, 15: 102–111.

Bebchuk, L., Cohen, A. and Ferrell, A. (2004). What Matters in Corporate Governance? *Review of Financial Studies*, 22(2), 783-827.

CalPERS Corporate Governance Builds on Successful 2007-08 Fiscal, Report Shows, Press Release. (2009, March 17). Retrieved from http://calpers.ca.gov

CalPERS Urges Dollar Tree Shareowners to Back Proposal for Annual Board Elections, Press Release. (2008, June 2). Retrieved from http://calpers.ca.gov

Dollar Tree, Inc. Form 10-K (2008, February 2). Retrieved from http://edgar.sec.gov

Dollar Tree, Inc. Form 10-K (2009, January 31). Retrieved from http://edgar.sec.gov

Ganor, M. (2008). Why do Managers Dismantle Staggered Boards? *Delaware Journal of Corporate Law*, 33(1), 149-159.

Faleye, O. (2007). Classified Boards, Firm value, and Managerial Entrenchment. *Journal of Financial Economics*, 83(2), 501-529.

Plitch, P. (2004, June 29). Two New Studies Could Provide Ammo Vs Governance Backlash. Wall Street Journal Online. Available at http://www.law.harvard.edu/faculty/bebchuk/ammo-vs-governance.htm

Schedule 14A Proxy Statement, Dollar Tree, Inc. (2007, May 17). Retrieved from http://edgar.sec.gov

Schedule 14A Proxy Statement, Dollar Tree, Inc. (2008, May 29). Retrieved from http://edgar.sec.gov

Schedule 14A Proxy Statement, Dollar Tree, Inc. (2008, May 15). Retrieved from http://edgar.sec.gov

Schedule 14A Proxy Statement, Dollar Tree, Inc. (2009, May 18). Retrieved from http://edgar.sec.gov

Shapiro, C. (2008, June 20). Shareholders want new rules for dollar tree board. *The Virginian-Pilot*. Retrieved from http://hamptonroads.com/2008/06/shareholders-want-new-rules-dollar-tree-board.

Shean, T. (2007, March 16). Dollar Tree to Address Some of Pension Fund's Concerns. *The Virginian-Pilot*. Retrieved from http://hamptonroads.com/node/237401

Sidel, R. (2002, April 1). Harvard Trio Says Staggered Terms for Boards Erode Shareholder Value. *Wall Street Journal*. Available at http://www.law.harvard.edu/faculty/bebchuk/pdfs/HarvardTrio.pdf

Tully, S. (2007, May 30). The Hottest Investor in America. Fortune. Available at http://money.cnn.com/magazines/fortune

A LEVERAGED BUYOUT: THE BURGER KING CASE

John H. Lewis and Samuel K. Jones,
Stephen F. Austin State University

INTRODUCTION

Burger King Corporation, according to the Funding Universe website, is the second largest fast-food chain in the United States, trailing only McDonald's. (fundinguniverse.com, 2010). The Burger King website states that in 2010 the Burger King system operated more than 12,000 restaurants in all 50 states and in 76 countries and U.S. territories worldwide. Approximately 90 percent of Burger King restaurants are owned and operated by independent franchisees. Many of these independent franchisees are family-owned operations that have been in business for decades. (Investor Relations, 2010)

Burger King was founded on the East coast at about the same time that Ray Kroc started the McDonald's concept on the West coast. This was the heyday of the fast food era. As illustrated in Exhibit 1, Burger King has gone through several ownership changes during its history:

Exhibit 1. History of Burger King Ownership

1953	Founded as Insta-Burger King
1959	Purchased by McLamore and Edgerton and renamed Burger King
1967	Purchased by Pillsbury Company
1989	Purchased by Grand Metropolitan which by merger became Diageo
2002	Purchased by private equity firms:
	TPG Capital, Bain Capital & Goldman Sacks Capital Partners
2006	Burger King became publically traded at $17
	with the private equity trio retaining 31% ownership
2010	3G Capital took Burger King private with a leveraged buyout

Source: http://en.wikipedia.org/wiki/Burger_King

3G CAPITAL'S TENDER OFFER

On September 1, 2010, Reuters broke the news that Burger King had been in talks with firms interested in buying the company and the company's stock jumped 18.5% in one day. At least one private equity firm distanced itself by stating that it was not in discussions with Burger King. (Reuters, 2010) That same day Sorkin and Lattman broke the news in the New York Times Deal Book that 3G Capital was the probable suitor. (NY Times Dealbook, 2010) The deal moved quickly and on September 2nd Burger King agreed to be taken private for the second time in the past eight years. Under the terms of the agreement, 3G Capital offered to pay $24 a share for the common stock, representing a 40 percent premium to the share price of $17.15 based on the 50 trading days before the reports emerged that the fast-food giant was in sales talks. (NY Times Dealbook, 2010) The tender offer had a condition that required that a minimum of 79.1% of the outstanding common stock be tendered for 3G to complete the transaction.

3G began soliciting tenders in mid-September but the agreement gave Burger King the ability to entertain superior offers during a "go shop" that would end on October 12th. While the tender offer process was proceeding, 3G also asked Burger King to begin a shareholder approval process. The shareholder approval process would require filing a proxy statement and holding a shareholder meeting to approve the acquisition and was a novel approach to an acquisition. The reasons for the 79.1% number and the filing of the proxy statement were clearly explained by Steven M. Davidoff in the Deal Book. (NY Times Dealbook, 2010) Burger King had granted 3G what is known as a top-up option whereby enough shares would be issued to give the acquirer 90% of the outstanding stock if the 79.1% threshold was obtained by the tender offer and this would allow 3G to consummate the acquisition with what is known as a short-for merger.

A short-form merger is a much less expensive and faster process since it proceeds without a stockholder approval process. The Beechmont Crest Publishing online guide states that the conditions necessary for a short-form merger to be used are that state law must permit it, the shares must be disproportionately concentrated and a minimum of shareholders must approve the merger. (beechmontcrest.com, 2010) In Delaware where Burger King was chartered, the 90% number was necessary for a short-form merger to be accomplished. This was the reason for the top-up option. However, if the 79.1% threshold was not met then 3G would fall back to a second merger process which requires a 50% affirmative vote for the merger at a stockholder meeting.

Given the large premium in the $4 billion offer, it was not surprising that the period ended without a higher bid. The tender offer and withdrawal rights expired at midnight on October 14th and 3G announced that it had gotten 93.8% of shares validly tendered by October 15th. (NY Times Dealbook, 2010) Since 3G Capital was able to garner over 90% of the shares during the tender offer period, they were able to proceed with the short-form merger and avoid the time and expense of a stockholder meeting.

THE LEVERAGED BUYOUT

The leveraged buyout of Burger King included the purchase of all the 136.51 million shares outstanding at a price of $24 per share totaling $3.3 billion. Including assumed debt, the entire acquisition was valued at over 4.1 billion. The financing structure involved the assumption of about $800 million in debt and capital leases previously owed by Burger King and the new financing taken on by 3G. Thus, the debt financing of Burger King after the acquisition was complete would consist of a new $1.85 billion six-year, term loan, part of a new $150 million, five-year revolver and the existing $800 million of 9.875% senior unsecured notes due

Oct. 15, 2018. Upon consummation of the acquisition, Burger King assumed all of these obligations so its new capital structure includes about $2.7 billion of debt and roughly $1.5 billion of equity capital provided by 3G.

Exhibit 2. Burger King Capital Structure ($ millions)

Pre-Acquisition	Book Value		Market Value	
Debt	$1,223	50.5%	$1,223	34.3%
Equity	$1,198	49.5%	$2,341	65.7%
Total	$2,421	100.0%	$3,564	100.0%
Post-Acquisition				
Debt	$2,700	64.3%	$2,700	45.2%
Equity	$1,500	35.7%	$3,276	54.8%
Total	$4,200	100.0%	$5,976	100.0%

Exhibit 2 shows Burger King's equity and debt at book and market value. Equity book value was about 49.5% of pre-acquisition market value of $2.341 billion based on its pre-acquisition average trading price of $17.15. It was about 37% of market based on the $24 offer price. Based on a stock price of $17.15, Burger King's capital structure was 65.7% equity before the acquisition. The offer price of $24 per share increased the market value of equity, but the added debt increased Burger King's financial leverage from 34.3% to 45.2% post-acquisition.

Fitch Ratings indicated that the new secured bank facility subjected Burger King to several financial covenants. The covenants included a maximum leverage ratio, a minimum interest coverage ratio and limitations on capital expenditures. The agreement also required mandatory prepayments with a percentage of the firm's excess free cash flow. The security on the facility was a first claim on all tangible and intangible assets of Burger King. In addition, the $800 million of 9.875% senior unsecured notes contained a change of control put option. (Fitch Ratings, 2010)

FITCH DOWNGRADES BURGER KING

On October 15th Fitch Ratings announced that they had reduced Burger King's long-term Issuer Default Rating (IDR) to B from B+. Fitch also assigned a new rating on Burger King's debt. Both the $150 million secured revolving facility and the $1.85 billion secured term loan facility were rated BB- with an RR2. The $800 million senior unsecured notes were rated CCC with an RR6.

The RR abbreviations are recovery ratings and indicate the prospects for recovery if default occurred. RR2 is a superior rating with probable recovery at 71%-90% while RR6 indicates the recovery prospects would be below 10% in default.

In evaluating Burger King, Fitch commented on its positive free cash flow and its competitive market position in the global quick-service restaurant industry. In assigning the ratings, Fitch pointed out that same-store sales performance weakened and the company had lost market share over the past two years. They specified that the new management had plans to

refranchise half of the 1,339 company operated units over the next three to five years and focus on international expansion and that these efforts should improve margins. Fitch also indicated that Burger King's free cash flow growth has been complemented by recent reductions in capital expenditures. (Fitch Ratings, 2010)

VALUATION METHODOLOGY

The total value of the target firm's outstanding common stock, also referred to as its market capitalization, is known to all and provides a starting point any takeover valuation. Enterprise value extends market capitalization to include preferred equity, short and long-term debt and minority interests less cash and equivalents. After an acquisition is complete, the acquirer would owe the company's debt but would have the company's cash to help defray the cost of the acquisition. However, the basis for any acquisition is the belief by the bidding firm that the target is worth more than the value represented by its current stock price. Because the final price in any acquisition will involve a premium over the current market price of the target firm's stock, bidders like 3G must first answer two important questions. First, how much is the target firm worth to the bidder? That is, what is its intrinsic value? Once the intrinsic value of the target firm has been estimated it is then necessary to determine how much should be offered for the target firm's stock. A successful offer must be high enough to produce a willing seller, but at the same time low enough to make the deal profitable for the bidding firm.

In determining the intrinsic value, two methods are commonly employed. The first is to use multiplier models. As the name implies, the value of the target company's stock is estimated to be some multiple of key financial variables such as earnings per share, book value of equity, or sales. The proper multiples are determined by selecting comparable companies and using the multiple by which their stock price trades relative to the same financial variables. While straightforward and simple, this approach assumes that the target firm and the comparable firms are similar. Differences in capital structures, taxes, growth rates or a host of other variables reduces the ability to make such comparisons. In such cases, it is no longer legitimate to assume that the target and comparable firms will be valued at the same multiple. Determining the appropriate multiple is fraught with difficulty and highly subjective. As a result, multiplier models are commonly used to provide a ballpark estimate of the value of the target firm, from which a more accurate valuation is determined by some alternative methodology.

In contrast to the multiplier method, discounted cash flow models are often considered to be more accurate and do not require the selection of comparable firms. Further, this approach can highlight sources of value behind an acquisition. Consequently, this approach is more widely used than any other method. The traditional dividend discount model, using discounted future dividends of the underlying business, can be used to compute intrinsic value. However, cash flow may be a more appropriate metric than dividends. The measure of cash flows used should be the free cash flow of the business as this represents the amount that can be withdrawn from the business per period without adversely affecting operations. For an investor who owns controlling interest of a business, free cash flow clearly is the appropriate metric since the controlling investor has the ability to control and alter the firm's dividend policy.

VALUATION OF BURGER KING

3G Capital was founded in 2004 in St. Louis and Toronto as a global, value-oriented hedge fund by Pavel Begun and Cory Bailey. Operating more like a private equity firm than a traditional hedge fund, the investment philosophy of 3G Capital is similar to that of iconic value investors Warren Buffett and Benjamin Graham, seeking out businesses that can be purchased at a significant discount to their intrinsic value. Once the target has been purchased, Begun and Bailey make changes necessary to for the acquisition to reach its intrinsic value within a target holding period of two to four years. In the case of Burger King, 3G Capital's goal is to refranchise roughly half of the company-owned stores, while simultaneously making significant reductions in capital expenditures.

The decision to offer $24 per share to shareholders of Burger King constituted a premium of 40% over the $17.15 day average price prior to the announcement. Exhibit 3 shows several traditional multiples for the stock, the restaurant industry and two other major companies in the restaurant industry, McDonald's Corporation and Yum! Brands.

Exhibit 3. Valuation Metrics

	Burger King		McDonald's	Yum	Restaurants
	Offer Price	Pre-Offer Price*			(median)
Price earnings ratio (ttm)	17.65	12.61	15.11	17.65	15.77
Price to book value (mrq)	2.83	2.02	5.34	17.07	8.33
Price to sales (ttm)	1.30	0.93	3.02	1.80	1.99
Price to free cash flow (ttm)	30.95	22.12	18.61	20.68	20.46
Price to cash flow (ttm)	10.93	7.81	12.13	11.40	11.05
Price to EBITDA (ttm)	7.33	5.24	8.37	8.59	7.81
Profit margin (ttm)		6.87%	20.62%	11.11%	12.87%
Return on equity (ttm)		18.37%	36.68%	89.04%	48.03%
Growth rate in free cash flow (5yrs)		3.61%	24.83%	227.35%	126.09%
Growth rate in EPS (5yrs)		54.29%**	25.70%	8.06%	16.88%
Beta		0.694	0.597	0.851	1.120

* Average price for past 50 trading days.

**Four year growth rate.

Source: Bloomberg Information System; Yahoo Finance

A model using discounted free cash flow can be applied to the Burger King acquisition to establish an intrinsic value. The metrics that must be estimated to apply the model are the beginning amount of free cash flow, its rate of growth, the required rate of return used to discount the future cash flows and the time period during which the cash flows grow. The trailing twelve months free cash flow figure can be used as a starting point, but for the first year of the acquisition, this figure should be adjusted to reflect any changes that the new owners may

make in the short run. As changes are implemented, free cash flows in subsequent years will also be impacted.

The required rate of return should reflect the risk in the acquired firm. The risk-free rate at the time of the acquisition could be estimated using the rate on a 1-year US Treasury bill or a 10-year US Treasury note rate which were .24% and 2.58% at the time of the acquisition. The market risk premium reflects the slope of the security market line, and at the time of the acquisition the Bloomberg Information System reported an 8.18% rate. (Bloomberg Information System, 2010)

Betas for Burger King, the restaurant industry, McDonald's and Yum! Brands are shown in Exhibit 3. The beta for Burger King reflects the capital structure prior to the acquisition. As shown in Exhibit 2, the capital structure changed after the acquisition as the acquirer substituted debt for equity.

The Hamada model can be used to compute Burger King's unlevered beta which removes the impact of financial leverage, instead reflecting the firm's business risk and operating leverage. (Hamada, 1972, pp. 435-452) This unlevered beta can then be re-levered to reflect the post-acquisition capital structure. Based on the capital structures in Exhibit 2, this process and the metrics used are contained in Exhibit 4.

Exhibit 4. Unlevered and Re-leveraged Beta

D/S before acquisition	0.52
D/S after acquisition	0.82
Federal income tax rate	35%
Beta before acquisition	0.694
Unlevered beta	0.52
Re-levered beta	0.80

When using a free cash flow valuation process, time can be divided into three segments. The first is a period of time during which the free cash flows can be estimated with some degree of accuracy and confidence. The length of this stage depends on the individual circumstances of the target firm but five years can be a starting point. The third stage is the long-run growth stage where growth is estimated conservatively since it is far enough in the future that precise forecasts are difficult if not impossible to make. The second stage is a transition stage from stage one to the long-run growth stage and its length depends on the difference between the level and growth of free cash flow in stages one and three.

The free cash flow valuation model can be used to produce a valuation for the target firm and its equity if the beginning free cash flow, its growth rates and the required rate of return are specified. Alternatively it can be used to solve for a rate of return if the stock price or firm valuation is known. A starting point could be average of the firm's free cash flow defined as cash flow from operating activities minus total capital expenditures plus the after-tax interest expenses. For the last six years Burger King's free cash flow to the firm has averaged $126.60 million and has been growing at a rate of 3.61% per year. As shown in Exhibit 5, this growth rate is used for the next four years and then growth is ramped up to a conservative 5.00% to compute the firm's terminal value.

Post-acquisition Burger King's long-term debt had a yield to maturity of 8.29% and its capital structure debt ratio was 45.2%. Combining this with a cost of equity of 9.12% gives a WACC of 7.44%. Using this and a long-run growth rate of 5.00%, the model produces an intrinsic value of $26.77 per share. The model can also be used to solve for the rate of return consistent with the acquisition share price of $24 and that rate is 7.65%. The underlying formulae for the free cash flow model are shown in Exhibit 6.

Exhibit 5. Three-stage Free Cash Flow Valuation Model

Risk-free rate (10 yr Treasury note) =	2.58%
Bloomberg market risk premium =	8.18%
Post acquisition beta =	0.800
Equity required rate of return=	9.12%
Yield to maturity on BKC bonds =	8.29%
Corporate tax rate =	35.00%
After-tax cost of debt =	5.39%
Post acquisition debt ratio =	45.20%
WACC =	7.44%
Required rate of return =	7.44%
Firm's free cash flow in 2010 =	126.60

Year	Firm's Free Cash Flow	FCF Growth Rate	Terminal Value	Present Value
2011	131.17	3.61%		122.08
2012	135.90	3.61%		117.73
2013	140.81	3.61%		113.54
2014	145.89	3.61%		109.49
2015	151.57	3.89%		105.87
2016	157.89	4.17%		102.65
2017	164.90	4.44%		99.78
2018	172.68	4.72%		97.26
2019	181.31	5.00%	7,430.93	3,990.42
	Total firm value =			4,858.82
	Total debt at acquisition =			1,222.50
	Intrinsic value of common equity =			3,636.32
	Number of shares =			135.815
	Intrinsic value per share =			26.77

Exhibit 6. Three-stage Free Cash Flow Valuation Model

Risk-free rate (10 yr Treasury note) =	2.58%
Bloomberg market risk premium =	8.18%
Post acquisition beta =	0.800
Equity required rate of return=	=D5*D4+D3
Yield to maturity on BKC bonds =	8.29%
Corporate tax rate =	35.00%
After-tax cost of debt =	=D7*(1-D8)
Post acquisition debt ratio =	45.20%
WACC =	=(D10*D9)+((1-D10)*D6)
Required rate of return =	7.44%
Firm's free cash flow in 2010 =	126.60

Year	Firm's Free Cash Flow	FCF Growth Rate	Terminal Value	Present Value
2011	=D13*(1+C16)	3.61%		=B16/((1+D$12)^1)
2012	=B16*(1+C17)	3.61%		=B17/((1+D$12)^2)
2013	=B17*(1+C18)	3.61%		=B18/((1+D$12)^3)
2014	=B18*(1+C19)	3.61%		=B19/((1+D$12)^4)
2015	=B19*(1+C20)	3.89%		=B20/((1+D$12)^5)
2016	=B20*(1+C21)	4.17%		=B21/((1+D$12)^6)
2017	=B21*(1+C22)	4.44%		=B22/((1+D$12)^7)
2018	=B22*(1+C23)	4.72%		=B23/((1+D$12)^8)
2019	=B23*(1+C24)	5.00%	=B24/(D12-C24)	=(B24+D24)/((1+D$12)^9)
	Total firm value =			=SUM(E16:E24)
	Total debt at acquisition =			1,222.50
	Intrinsic value of common equity =			=E25-E26
	Number of shares =			135.815
	Intrinsic value per share =			=E27/E28

REFERENCES

Beechmont Crest Publishing, (2010). http://www.beechmontcrest.com/short-form_merger.htm (Accessed 10/27/2010).

Bloomberg Information System, Equity EQRP page. (Accessed 10/27/2010).

Davidoff, Stephen, (2010). Dealbook, http://dealbook.blogs.nytimes.com/2010/09/09/fast-food-deal-on-a-fast-track/ (Accessed 10/27/2010).

Davies, Megan & Meads, Simon, (2010). Burger King has been considering sale - source. Reuters, http://in.reuters.com/article/idINIndia-51218920100901 (Accessed 10/27/2010).

Dealbook, http://dealbook.blogs.nytimes.com/2010/09/02/burger-king-to-sell-itself-to-3g-for-4-billion/ (Accessed 10/27/2010).

Dealbook, http://dealbook.blogs.nytimes.com/2010/10/15/3g-gets-nearly-94-of-burger-king-shares/ (Accessed 10/27/2010).

Fitch Ratings, http://www.fitchratings.com/creditdesk/press_releases/detail.cfm?pr_id=633363 (Accessed 10/26/2010).

Funding Universe, http://www.fundinguniverse.com/company-histories/Burger-King-Corporation-Company-History.html (Accessed 10/27/2010).

Hamada, R.S. (1972) "The Effect of the Firm's Capital Structure on the Systematic Risk of Common Stocks," The Journal of Finance, 27(2):435-452.

Investor Relations, Company Overview, http://investor.bk.com/phoenix.zhtml?c=87140&p=irol-IRHome (Accessed 10/27/2010).

Sorkin, Andrew Ross & Lattman, Peter Dealbook, (2010). http://dealbook.blogs.nytimes.com/2010/09/01/burger-king-in-buyout-talks-but-not-with-3i/ (Accessed 10/27/2010).

Wikipedia, http://en.wikipedia.org/wiki/Burger_King, (Accessed 10/25/2010).

SAMPSON ENERGY

Jim Mahar and Jeremy Tranzillo,
St. Bonaventure University

A consultant, Joe Black, was hired by Sampson Energy to develop a cash flow and expenditure forecast for the company. The founder and controlling owner wants to develop a three-year plan to determine if the company can grow oil and natural gas production without taking on any long-term debt.

INTRODUCTION

Joe Black was hired as a consultant by William Sampson to prepare a presentation for Sampson Energy, LLC's quarterly board meeting. William is the founder and controlling owner of the energy firm, which has operations in both oil and natural gas. Specifically, Mr. Sampson asked Mr. Black to develop a three-year financial plan for the firm.

The two main issues to be discussed are a cash flow forecast that ties together revenue and expenditure forecasts for the coming years, as well as the firm's current and future capital structure. Both topics are challenging as demand, market prices, and volatility for energy firm's services and products is extremely hard to predict. Making this year's analysis especially difficult is the firm is considering a major change to its capital structure and the recent changes in oil and natural gas prices. Since its founding, Sampson has been entirely equity financed, but several members of the board of directors feel that the time had come to take on long term debt. Black must be ready to state his opinion on CHOB Bank's recent offer to extend up to $500,000 in debt financing for the exploration and production of natural gas. Black has also been asked to investigate whether financial derivatives would be useful in managing risk for the company.

Industry Overview

The energy sector is very cyclical and subject to major macroeconomic events and trends. GDP numbers, unemployment rates, and political instability have major impacts on oil and natural gas prices. The economy directly impacts supply and demand for all energy commodities, which in turn affects firms involved in the energy sector.

In the aftermath of the 2008 financial crisis, there has been reversal of historical positive correlation between natural gas and oil prices. Government market interventions, unrest in the Middle East, the European sovereign debt crisis, as well as the large supply in natural gas brought about by new technology (fracking) has created a negative correlation between the two energy sources. Since the middle of 2009 gas prices have risen as large supplies of natural gas

have led to a sharp decline in natural gas. As a result of the negative correlation, many energy sector firms are diversifying their holdings to reduce risk.

While large energy providers have operations in all areas of the industry from exploration to retail distribution, the majority of smaller firms specialize in certain area and can be classified as either service companies or production companies. Service companies comprise mostly of drilling and completion (hydro-fracturing) operations, whereas production companies produce oil that they own and then sell to customers. While the market values of each fluctuate with oil and gas prices, service providers tend to be more exposed because when oil prices drop, demand for services and exploration for new oil and new drillings can also decrease. To limit their exposure, some small oil and gas service companies have begun to drill their own wells to provide a source of income during the downturns through the continued production of oil. Sampson is no different and recently the firm has become an oil producer an addition to their existing services business.

History of Sampson Energy

After starting his career with a large oil-drilling contractor, William Sampson quit and started a small drilling company called Sampson Drilling, Inc. in 1979. He began his company with only one drilling rig and as more companies started using his services he added additional equipment. Currently, Sampson is an established company and can now drill, service, and hydro-fracture (three main services for drilling). The Sampson Drilling firm has annual revenues of approximately $25 million.

In 2004, William Sampson decided to begin producing his own oil and gas wells to diversify his income. As a result of this decision, Sampson invested $1.2 million (into the newly formed Sampson Energy, LLC) with the plan to grow the company organically without taking on any long-term debt or selling any equity in the newly formed company. For the next five years, Sampson drilled new wells when funds were available, but never had a concrete plan. As a result, in 2009 Sampson operated 55 wells, where he owned a 100% working interest, and invested in another 27 non-operated wells with customers his drilling company provided services to. However, he had never developed a working business plan, the company was always low on cash and Sampson never knew when he would be able to drill wells throughout the year.

In his initial meeting with Mr. Black, Sampson stated, “I want to grow this company while maintaining at least 80% equity voting interest and be able to increase distributions to $60,000 per year.” Sampson also made it known that while the firm had access to $500,000 in debt financing through the bank, he felt extremely uncomfortable with taking on debt in his energy company since production of oil wells was relatively new to him.

While Sampson did not want to limit the firm’s growth by setting a production goal, he stated, “It would be great if oil production averaged 80 barrels per day in three years. But more than that I would like to know how many wells we will need to drill each year to hold that production constant taking into account the natural decay that occurs in wells.” After listening to Sampson’s goals, Joe developed a forecast that he felt were sustainable over the next few years.

BUSINESS STRATEGY OVERVIEW

Grow through Drilling

Sampson Energy's strategy is to grow through drilling. They would like to acquire acreage throughout the area and grow production and reserves through drilling on properties with known reserves. Sampson also wants to build on a regional scale in proven oil properties. One key to the firm's success has been growing in the area of central Kentucky. Since Sampson has many years of experience providing services for customers, his reputation and knowledge has enabled him to keep costs low while ensuring good drilling success rates.

Grow the Business without Long-Term Debt

Sampson's goal is to grow the business without long-term debt. The company has so far been successful without taking on long-term debt by funding projects solely with internally generated cash and trade credits from other businesses that William Sampson owns. However, the board is now questioning this strategy and Sampson himself is concerned that to continue to grow organically, that is without any mergers and acquisitions, he may need to take on debt to keep up with production growth through a poor economy.

GENERAL INDUSTRY TERMINOLOGY

Net Revenue Interest

For any given project, production is broken down into gross and net revenue. Gross revenue is simply the total revenue a well produces, while net revenue subtracts the royalties paid to the mineral owners. Revenue on Sampson's income statement is considered to be net revenue.

Royalties

This is the compensation received by those who own the land where oil and gas wells are drilled. This income comes "off the top" of the gross revenue generated from the wells paid directly to the owner typically 12.5% of gross revenue. Furthermore, the mineral owners leasing the rights to the production company do not assume any risk or liability in the well(s).

Lease Operating Expenses

Lease Operating Expenses or LOE's are characterized as expenses incurred while in the production of oil and gas. These expenses include pumper fees, plugging fees, water disposal, and maintenance of wellhead equipment. Exhibit 1 is an example of a one-month breakdown of income and expenses for an oil & gas property.

Exhibit 1. Property Operating Income Example (2009 Monthly average)

Monthly Operating Income	
Oil	150 barrels of oil
Gas	100 million cubic feet (mcf)
Average Oil Price	$ 80.00
Average Gas Price	$ 4.00
Total Gross Revenue	$ 12,400.00
Royalties	$ 1,550.00
Total Net Revenue	$ 10,850.00
Lease Operating Expenses	$ 2,780.00
Net Operating Income	$ 8,070.00
Yearly Operating Income	$ 96,840.00

PRO FORMA ANALYSIS

To determine the amount of capital expenditures to achieve production growth and stay within the constraints, Mr. Black developed a financial modeling spreadsheet that can forecast production and pro forma financial statements based on certain assumptions. Black consulted a geologist on behalf of Sampson to determine what the existing production of the company would be in the future, as well as the expected production for every new well completed. Sampson's three-year plan and corresponding financial statements are all pro forma and based on validity of the model.

Now that production could be estimated, prices for oil and gas had to be determined. Sampson had entered into an agreement with local buyers to sell them his oil for $80/barrel and his natural gas for $4.00/mcf. Ultimately, Sampson had created hedges on his production for oil & gas to reduce the volatility of his revenue. Lastly, costs to drill the wells (capital expenditures) and lease operating expenses in the model are based on historical averages of the company.

Forecast for Sampson Energy

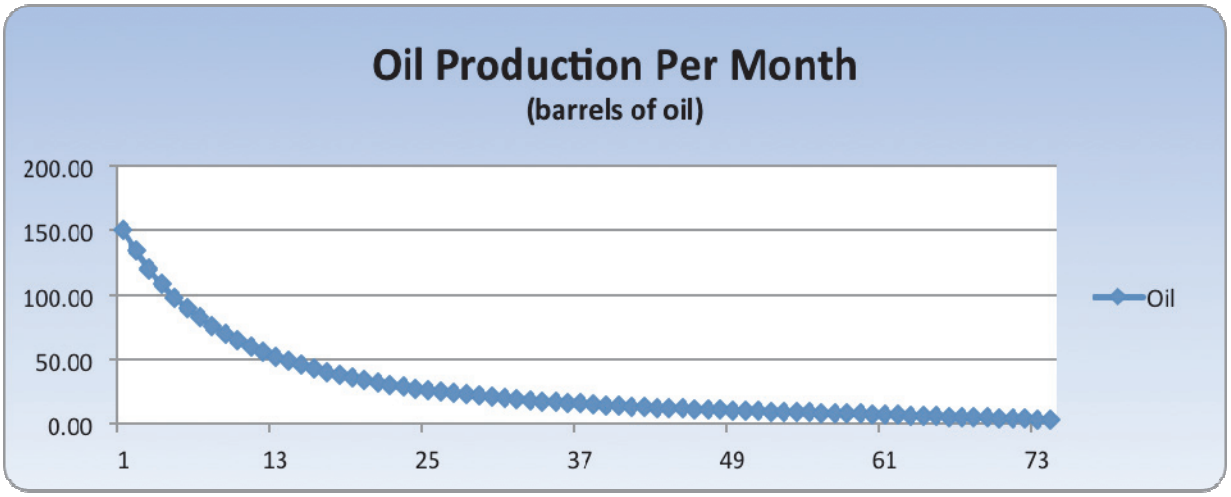
Exhibit 2. Sampson's Financial Goals

Objectives	***Sampson's 2012 Goals***
Capital Structure	80% Equity / 20% Debt
Distributions	$60,000/year
Oil Production	80 barrels per day
D/E Ratio	0.25
EBITDA %	50.00%

Net Present Value Determination (Upper Devonian Well Decline)

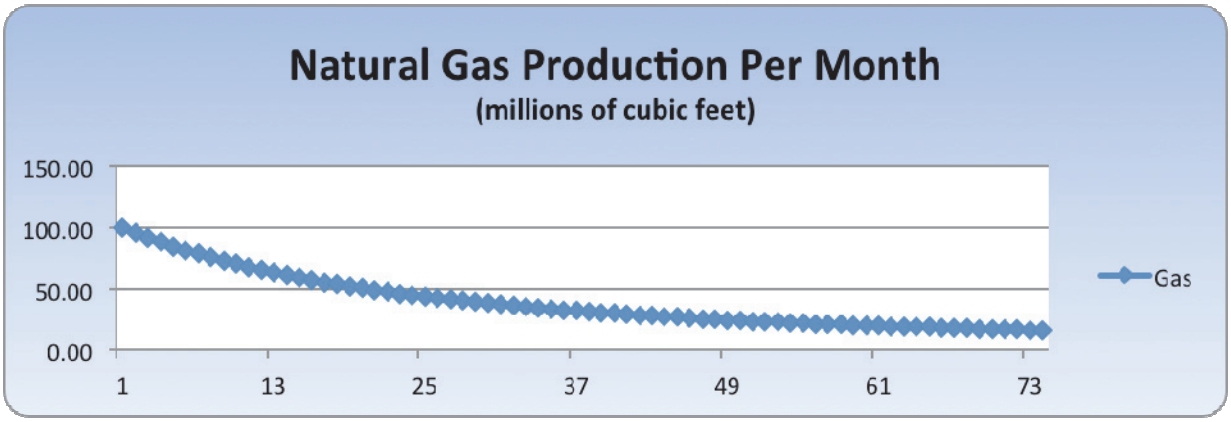
First, Black needed to determine if the investments Sampson was making in his wells produced positive net present values. After looking at historical data and consulting with a geologist the wells produced as follows. A typical well in the Upper Devonian sandstone produces oil, and natural gas. As the chart demonstrates, most of the oil is produced in the first two years of the life of the well. Furthermore, over the life of the well, oil will represent approximately 90% of the total revenues.

Figure 1. Oil Well Production Decline per Month



Natural Gas is compressed into a pipeline and then sold by marketers of natural gas. However, the amount of gas produced is much smaller as opposed to its oil equivalency.

Figure 2.
Natural Gas Decline per Month



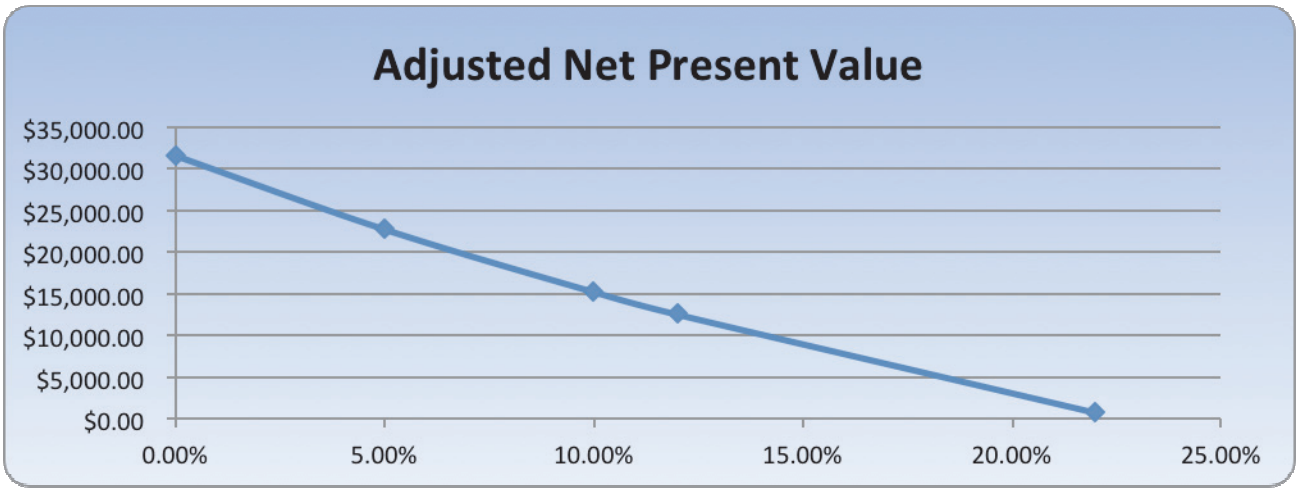
Capital Budgeting/ Net Present Value (NPV)

Sampson has drilled 54 wells in the Upper Devonian Sandstones resulting in good historical data of production. Drilling a typical Upper Devonian well has an estimated internal rate of return of approximately 12%, which is greater than Sampson's WACC of 10%. This is based on a well cost of $87,000, average LOE's and well declines based on historical figures.

Adjusted Net Present Value

Taking into account profits of approximately $12,000 from Sampson Drilling company services the NPV profile changes for all wells. Subtracting this amount to determine the internal rate of return gives a new well cost of $75,000, and respectively a higher net present value for his combined expected cash flows when considering both production and services provided. After much study Black recommended that the costs be included since the $12,000 had to be incurred even if the payment was to a related party. Be backed this point up with the argument that Sampson could contract with an outside drilling firm in the future and the costs would have to be included.

Figure 3.
Sensitivity analysis: Adjusted Net Present Value per Well based on differing costs of capital



Predictability of Future Revenues & Cost Structure

Sampson stated he wanted to grow production up to 80 barrels of oil per day in 2012, which represented approximately a 12% compound growth rate in production per year. After analyzing the NPV of Sampson's past wells, Black felt this production growth could be achieved. According to the geologist hired by Sampson, the production by each well will vary; however, the mean oil and gas production will be relatively equal to the average production used in the NPV calculations (keeping in mind future wells are in proven areas of supply). Sampson also felt drilling new wells costs, administrative costs, and lease-operating expenses (LOEs) would remain the relatively constant in the near future.

Availability of Financing

Sampson stated his belief that no external financing should be needed in supporting capital expenditures. Since Sampson Energy's sister company Sampson Drilling can provide a majority of the services, trade credit financing is extended through accounts payables of Sampson Energy where scheduled payments are made. In the past, Sampson Energy has averaged 235 days to pay invoices in full. This provides flexibility of cash, while providing profits to the drilling company for services. As a safety net, Sampson reminded Black that Sampson Energy has access to $500,000 in financing to support capital expenditures if needed.

Solvency

Sampson Energy's capital structure has always been free of long-term debt. Capital expenditures have been funded through equity contributions and operating cash flow. The debt on the balance sheet is short term in nature with the limited long term financing being extended through his other company with no stated repayment terms. Having a conservative capital structure has reduced financial risk and allowed Sampson discretion with his cash. Sampson intends on maintaining this capital structure and does not intend on exceeding a capital structure of more than 20% debt to assets.

CONCLUSION

Consultant Joe Black laid out a plan for Sampson Energy to grow the firm over the next three years without using external capital by using only internally generated cash flow and trade credit. This growth, accompanied by hedged oil prices will allow the firm to meet the aggressive goals of CEO William Sampson.

Black and his team of consultants used both financial and geological models of production to analyze the capital requirements needed to drill at least fourteen (14) wells per year at an inflation adjusted $90,000 per well for total capital outlays of $1,260,000 per year. If this drilling schedule is implemented, it is hoped that through 2014, Sampson's production will be sustained above 80 barrels per day even after accounting for the inevitable production decline that accompanies oil well, by maintaining a consistent drilling program of 14 wells per year.

EXHIBIT 3.
Sampson Energy
Select Financial Ratios
2009-2012

	2009 Actual	2010 Forecast	2011 Forecast	2012 Forecast
EBITDA	**60.00%**	**66.36%**	**66.27%**	**66.57%**
Current Ratio	**0.24**	**0.55**	**0.65**	**0.66**
Quick Ratio	**0.19**	**0.49**	**0.61**	**0.61**
Total Debt/Equity	**0.25**	**0.25**	**0.25**	**0.25**
Long Term Debt to Equity	**0.00**	**0.20**	**0.18**	**0.18**
Equity/ Assets	**80.6%**	**0.80**	**0.81**	**0.82**

EXHIBIT 4.
Sampson Energy
Cash Flow
Historical and Forecasted
2009-2012

	2009 Actual	2010 Forecast	2011 Forecast	2012 Forecast
Operating Cash flow	**$693,000**	**$1,208,000**	**$1,425,000**	**$1,420,000**
Drilling Costs	**$671,500**	**$1,044,000**	**$1,232,000**	**$1,320,000**
Distributions	**$7,500**	**$45,000**	**$45,000**	**$60,000**
Reduction of Related party debt	**$0**	**$15,000**	**$15,000**	**$15,000**
Land and Lease Acquisitions	**$10,000**	**$10,000**	**$10,000**	**$10,000**
Net Cash Change	**$4,000**	**$94,000**	**$123,000**	**$15,000**

Exhibit 5.
Sampson Energy
2009-2012
Operational Projections from Internal Sources

Production forecasted highlights for 2010

- 22,623 barrels of oil
- 44,124 mcf of natural gas
- Bring into production ten (13) wells: $1,012,000
- Four wells were drilled, but not completed in 2009
- Exploratory Testing (1 Well):$32,000
- Acquire 100 Acres of Leasehold: $10,000
- Total Capex for 2010: $1,054,000

Production forecasted highlights for 2011

- 28,500 barrels of oil
- 49,839 mcf. of natural gas
- Drill & Complete fourteen (14) wells: $1,232,000
- No exploratory testing is planned
- Acquire 100 Acres of Leasehold: $10,000
- Total Capex for 2011: $1,242,000

Production forecasted highlights for 2012

- 30,070 barrels of oil
- 52,166 mcf of natural gas
- Capital Expenditure Plan
- Drill & Complete fifteen (15) wells: $1,320,000
- No exploratory testing
- Acquire 100 Acres of Leasehold: $10,000
- Total Capex for 2012: $1,330,000

Exhibit 6. Copy of email to William Sampson from Ralph Ross Geologist of AGS Geology

To: William Sampson
From: Ralph Ross

Sorry for the delay. I have been doing much traveling to Northern Canada and communicating our projections to you slipped through the cracks. I apologize.

I attached the full 30-page report, but here is the key summary data from page 1.

"Summary projections:

Based on our expertise and your own historical track record we believe that wells in your area will continue to be profitable investments. While energy prices have been very volatile, we expect them to rebound as the economy recovers. Our initial production forecasts for the region are 150 barrels of oil (100 MCF of Natural Gas) in the first month of well operation. This production will decrease at projected rate of 3.78% a month for oil and 2.125% for natural gas. Based on this decay rate and excepted future energy prices, we project that the wells can be profitably operated for 6 years (72 months) although the majority of production will be in the early periods. "

I have included a summary table for illustrative purposes.

Month of well operation	Oil production (avg. Barrels per well)	Natural Gas production (avg. MCF per well)	Est. monthly contribution by well from oil	Est. monthly contribution by well (Nat. Gas)
1	150.00	100 .00	$12,000	$400
12	98.07	78.96	$7,845	$316
24	61.69	61.02	$4,935	$244
36	38.80	47.16	$3,104	$188
48	24.41	36.44	$1,953	$146
60	15.35	28.17	$1,228	$113
72	9.66	21.77	$773	$87

If you have any questions, I will be back in the office next week or feel free to email me. I won't have cell coverage for much of this week but can check email on a daily basis.

Sincerely,

Ralph Ross
Oil geologist AGS Geology

BAYOU U.: ETHICS AND LEADERSHIP

Timothy B. Michael and Melissa A. Williams,
University of Houston-Clear Lake

"Sell not virtue to purchase wealth, nor Liberty to purchase power."[1]

Benjamin Franklin

At a recent school meeting, the business dean at Bayou U. told his assembled faculty that if they made their online courses too hard (by proctoring exams for the first time) there would need to be "a lot fewer people in this room." This warning came after the faculty had spent the previous ten years making sure that students could, if they wished, finish the school's masters programs with online courses instead of attending classes on campus. The trouble was that in the process of making this change, face-to-face resources had been lost, and academic integrity had become questionable. Faculty, students and alums had witnessed an increased reliance on collaborative test-taking and plagiarism, and some of these were simply due to seemingly arbitrary restrictions. Responsible faculty had taken measures to prevent this type of problem, but these measures were increasingly expensive to faculty and honest students alike. Some of methods were not very effective – students could still get away with cheating on exams, for example, with a modest amount of effort. This put honest students at a disadvantage versus dishonest students, and the potential for cheating diluted the value of the school's reputation for creating outstanding graduates. Students, alums, faculty and the pool of potential employers, all important constituents, began to wonder whether Bayou U. could produce quality graduates given the shift of resources and the new emphasis on "online programs."

What type of students does Bayou U. serve?

Bayou U. was an upper-division school, so undergrads came there after finishing two years at a community college or other institution. Most of these students were already working full-time jobs or had careers established, and many of them were older with young families at home. The university also had a large number of MBA students and students in functional area masters programs (such as the MS Finance and MS Accounting programs) and catered to the aerospace, energy and health care industries. Within these masters programs, the School of Business had a number of students from offshore who came to the US and stayed here after graduation. In fact, the accrediting body responsible for the business accreditation held the college to a higher standard due to its overwhelming reliance on graduate hours.

[1] Franklin, Benjamin (1738). Poor Richard's Almanac.

THE NEXT BIG THING

College and university administrators had made the decision to deliver the MBA program to fully "online" students around 2002. Several years later, college administrators asked finance faculty to offer both the undergraduate BS and graduate MS Finance programs as "online programs," meaning that students would be able to complete degree requirements without being required to come to campus. The degrees were available in a fully "online" format starting in 2009.

As implemented, though, the overwhelming majority of students still lived and worked near the suburban campus, and only a handful of students, whether undergrad, MBA or MS Finance, were considered truly "online." In order to make the online courses available on a regular basis, the school had cut back on face-to-face offerings (especially during the summer session, which offered only one or two traditional courses where it had offered ten or more before). Students who were away from campus occasionally had to wait for a course to be available online, but traditional students found themselves having to take online classes (whether they wanted to or not) in order to complete their degrees, and this situation had existed as early as 2006.

Just as the MBA students were becoming aware that they might have to take a class in a modality that they did not choose, in order to finish on time, other students were coming to faculty with concerns about the academic integrity of online courses. In particular, there were classes where students evidently routinely got together to cheat on exams, either by taking them at the same time or taking turns answering the pool questions. Homework and test questions were being passed around between students every semester, and some professors had not changed their online test items for years if ever. Nothing prevented students from printing out their tests, correct answers and feedback, and so a culture of dishonesty developed over time among some of the "online" students. The students who saw each other routinely on campus in their traditional classes had the opportunity to network about academic dishonesty, and some courses could be completed simply by having a reference copy of the correct answers when sitting down to take the online tests. This represented a disadvantage to honest students over time, and several had complained to faculty members about this phenomenon in more than one course.

As these concerns surfaced with MBA students, several of the faculty in the finance area asked administrators about academic integrity and proctoring prior to putting more courses or programs online. These professors also approached colleagues with recognized issues in their courses and asked them to change behaviors, and some of the colleagues made changes, making cheating tougher and screening for plagiarism when none had been done before. Sometime in 2005 a senior business administrator had assured a concerned faculty member that proctoring was done "all the time" in the existing online classes – students in "online" courses could be asked to take on-campus assessments by faculty, and that future courses could be expected to be done the same way because that choice was "up to the faculty member."

By the time the finance department was asked to develop fully-online programs, beginning in 2008, School of Business administrators had changed their tune. Faculty who would offer these new "online programs" in finance would have to complete all high-stakes assessment via the course management system. Faculty were told that a university policy had been created by a vote of the university's Deans' Council that students could not be asked to come to campus to take tests, nor could they be required to take a test at a remote proctoring site near their home location. Faculty could not ask students to find a proctor at their location to administer tests, as is commonly done in online degree programs. The reasoning, as explained by senior university administrators

in public meetings and on several occasions, was that there was a promise to students to be "fully online," and that asking them to take proctored examinations somehow violated a "truth in advertising" legal requirement imposed by the university's lawyers. In addition, professors who were developing new online courses for delivery were told that the "university policy" prohibited proctoring of any kind in online courses.

Behind closed doors, though, faculty started to suspect that administrators were really planning to trade academic integrity (in the form of looser standards in "online" courses) for short-term enrollment. Every move made by administration (at both the university and college levels) and every explanation of the re-allocation of resources to the "online programs" suggested that the real motive was to increase enrollment by any means necessary.

As implementation began in 2009 and 2010 it became evident that students were spending considerable resources trying to cheat and that other students and the school's reputation were suffering because of it. Not only did the honest students face poor grades due to biased averages, but the few conscientious faculty who tried to curtail cheating used methods that made it harder for honest students as well. Changing testing methods and test items every semester was expensive and time-consuming, required more and more creativity on the part of even the most sincere professors, and risked making questions too difficult and unfair. Additionally, even the most scrupulous students faced the challenge of being placed in a group task environment with someone who was used to cheating and/or plagiarizing assignments, and the risk associated with this made the better students more and more uncomfortable over time. The lack of resources in the traditional program also took its toll on enrollment and student morale – face-to-face students were not able to enroll in enough on-campus courses to finish their degrees in a timely fashion, and they were upset and uncomfortable when they had to take purely online classes.

THE FIRST ACCREDITATION CONCERN

After seeing no progress on this issue from administration, in January 2011 one complaining business faculty member asked students in one undergraduate class to either come to campus or find an independent, off-campus proctor (approved in advance by the professor) for the final exam. When the dean found out the professor was told to change the course syllabus as this would be against "university policy." The professor reluctantly complied.

The 10-year visit of the university's regional accrediting body was planned for the end of that semester, and the week before the site visit the university office of online programs suddenly and without prior notice to anyone decided to host a Friday session on the remote proctoring of online courses. One particular provider was invited to give faculty and other interested parties a presentation.

The reason for the "emergency" proctoring presentation was discovered by faculty about the same time they were invited to the session by administrators: the accrediting body's visitation team had earlier that week sent a list of questions that it wanted answered for the next week's site visit, and it seemed that the nature and quantity of online course proctoring at Bayou U. turned out to be important to the visit team. They asked specifically about the proportion of assessment in online courses that was done in a proctored fashion. Therefore, the demonstration session was laid on to try to show that the administrative team at Bayou U. was appropriately concerned as well.

Several concerned professors attended the Friday session, and a representative came online and demonstrated the proctoring service. One finance faculty member asked the former finance

chair and then business associate dean (who was in attendance) why the school was even having the demonstration when "university policy" expressly prohibited proctoring in online courses. The professor was told to "consult the dean" before adding proctoring provisions to the pending online courses for the upcoming 2011 summer session.

The business dean confirmed via email on Tuesday of the following week that there was still, in fact, a university-level "policy" that prevented faculty from proctoring courses taught in "online programs." The regional accreditation visit was across the Wednesday of that week, which was also the day that a revised university policy containing the definitions and catalog descriptions of "online" courses was going to be brought before the faculty senate for a vote. This vote was to be taken after years of wrangling over the role of the administration in dictating "best practices" in online classes. Up to that point, and as submitted to faculty senate for debate, there was no mention in the policy of proctoring or the "no proctoring" edict that was supposed to exist at the university level.

One contentious part of that policy involved the administration's labeling of different course modalities. The policy differed from many of the other policies in the campus handbook by including a reference to a Web page that defined different types of courses offered at Bayou U. on the basis of whether they were fully online, hybrid (containing some online content) or completely traditional or face-to-face.[2] Administrators had developed a system of labels that they thought they could use to designate which courses were eligible for some on-campus component (such as proctoring, as it was being interpreted) and which courses were not. Those courses taught in "online programs" could only be designated as having no on-campus component when created, and this was deliberately interpreted by administration to mean that students could not be proctored at their remote locations or via Webcam either.

Up to that point online offerings in the School of Business had been limited by the dean to being listed as "WW" or labeled "(N)o face-to-face is required".[3] The professors involved suspected that this was by request of the provost's office and on behalf of the university's enrollment management unit, whose responsibility it was to create new students. It was clearly in the interest of the administrator in charge of enrollment management to allow students to take courses without any reference to proctoring.

Faculty senators argued on that Wednesday that the course definitions in the policy document were unnecessary or even incorrect because of the existing "no proctoring" policy confirmed the day before by the business dean. They also argued that the "no proctoring" policy should be part of the university's official online policy in the university handbook and lobbied for that change before passing the policy in faculty senate.

As part of this discussion in senate the university's provost was forced to admit that a "no proctor" policy did not exist nor had it ever existed, but he suggested that such a policy was something that individual deans could apply at will. One senior faculty member suggested that the regional accreditation team should be asked about this topic directly since they were on campus already.

[2] As might be expected, the contents of this Web page could be changed at any time by the administration of the university, as needed, without input or permission from faculty senate after the vote.

[3] This policy continued until the second (school-specific) accreditation visit, as described below.

Exhibit 1: Modality of Courses at Bayou U.

Delivery Mode	Instruction Mode	Online Course Description
Fully Online	**WW**	All class instruction and course requirements are available online. No Face to Face is required.
	WR	All instruction is online BUT expect limited mandatory Face to Face sessions, such as orientation, exams, or presentations.
Partially Online	**WE**	Online delivery is substituted for 50% or more of scheduled course materials.
	WP	Online delivery is substituted for less than 50% of scheduled course meetings.
Face to Face with Web Shell	**WS**	100% of meetings are Face to Face with supplemental material online. This mode is not considered to be an online course.
	P	100% of meetings are Face to Face. This mode is not considered to be an online course.

Unfortunately, though, some accreditation meeting sessions had been moved and/or rescheduled at the very last minute by university administrators without notice to all of the participants. Faculty members or unit chairs who might have had concerns about the lack of online proctoring ended up not being able to meet with the visit team about these issues.

FOR EACH DEAN TO DECIDE

In a School of Business faculty meeting held the very next week, the provost revealed that he and the business dean had been told at some point by university lawyers that there was a "truth in advertising" issue and therefore faculty could not proctor tests in "online programs" because these programs had been advertised a certain way.[4] When this new revelation was questioned by professors in that meeting, the dean admitted there and then that he “could not stop” faculty from demanding proctoring in their online classes, but that he would "prefer" that they did not.

Antics with semantics

Up to this point, and for at least two years prior to the Spring 2011 senate debate, faculty senators had already heard from the university’s upper administration that classes in "online

[4] This line of reasoning was suspect, especially considering that the university constantly touted the “small class sizes” in its master’s courses while administrators threw more students into each graduate section every semester. Eventually, summer courses would be expected to reach maximum capacity at more than fifty students in an online MBA course.

programs" had to be tested only through the online course management system because they were advertised as being "fully online." When faculty members were finally able to refute the "truth in advertising" argument by publicly pointing out the plethora of existing, advertised online degrees that required hands-on proctoring of some type, it was then put forward by university and college administrators that Bayou U. already had students off-campus who could not physically come to campus and therefore faculty would have to continue to offer testing online in any case in order to accommodate these existing students. When faculty found testing solutions that existed via Webcam or even remote testing sites they were told that the university could not ask students to pay for these solutions because it was not advertised as being required, and further that these solutions would still constitute a "face-to-face" requirement in an "online program." Faculty had been told, again in public, that the university could not afford to pay for Web proctoring for each "online" student's test, and that students couldn't be asked to pay for their own tests because, among other things, it would be an information privacy issue if the student had to give payment information to a third-party vendor. Faculty members pointed out that "online" students were forced to buy their own bandwidth (Internet access) and that such contracts were made between students and third-parties routinely and without university participation or supervision. Additionally, faculty stressed that only a few of the school's students were fully "online" in any case, and that most folks lived nearby and could easily take exams on campus a few times each semester.

Progress via state law

Fortunately, the concerned faculty were able to appeal to both the law of Bayou U.'s state and then to the School of Business' accrediting body. The first appeal was to point out that state law required faculty to be in control of the evaluation of instruction, and faculty presented this argument immediately following the regional accreditation visit in 2011. The state's Higher Education Coordinating Board listing of state laws covering "Distance Education" included a rule that said simply (in part)

> **"The instructor of record shall bear responsibility for the delivery of instruction and for evaluation of student progress."**

Because the university was beholden to that governing body for its existence, university administrators appeased faculty by forming an *ad hoc* faculty committee in the summer of 2011 to determine the best way forward for online proctoring. That committee was comprised of every constituency that the administration could argue for, reasonably or not, and that committee was stalled at every turn.[5] After two years of hesitant investigation that committee was stuck due to imaginary legal concerns – university lawyers had found "many issues" with the idea of students paying for their own proctoring, and hence even a pilot study of the many proctoring alternatives was delayed indefinitely. On-campus alternatives for nearby students were still forbidden by the

[5] The *ad hoc* committee was commissioned by the provost's office but charged by the faculty senate president. It consisted of: one faculty member from each school; a faculty chair; a representative from the dean of students office; a representative from enrollment management; someone from human resources; the director of the online programs office; two folks from university computing resources; a graduate student, and an undergraduate student. At one of the first meetings the undergraduate student expressed her confusion because all of the exams she had ever taken in "online" courses had been given on campus, and she didn't understand why the committee was necessary.

provost as being inconsistent with the idea of "online programs."

A second appeal to accreditation was slightly more productive, but it is likely that this approach would not have worked without the leverage of the first. Knowing that a business reaccreditation visit was upcoming, the business dean decided to allow a pilot study of proctoring within the School of Business itself. The dean had reason to expect that several of the concerned, responsible faculty would make the unofficial policy prohibiting proctoring an issue with the business accreditation visit team. To his credit the dean obtained "permission" from the university provost to begin 1) remote proctoring in a few classes, wherein student per-test fees would be paid by the School of Business, and 2) allowing local students to take on-campus proctored exams at their option.

Beginning in Spring 2013 the business pilot study confirmed what faculty members had said for several years - most students were not truly "online" students; they lived nearby.[6] Most of these students were willing to come to campus to take exams on paper and with supervision, and many actually seemed to prefer that method over an online alternative. It also revealed that the online proctoring service was relatively simple to implement, especially for faculty who were already making numerous provisions in order to prevent cheating in the first place.[7] The pilot allowed students to have more time on exams and faculty could worry more about content and less about cheating behaviors. Did the pilot study show that catching cheaters was easier with a proctoring solution? Of course not: it is likely that students are rational, and that they behaved as though they were being watched. Some students complained, and other students thought that it was late in coming, but the pilot study was an overwhelming success as a proof-of-concept for the business school.

The administration knew about the pilot's success as the business accreditation visit approached, but they still gave proctoring only hesitant support and begrudgingly gave "permission" at the provost's level for it to continue. Professors were concerned that proctoring would be deemed unnecessary and/or too expensive after the business visit. Supporting this belief was the fact that the university-level *ad hoc* committee had moved no further on its charge to produce a campus-wide solution for the problem, even as the School of Business was moving forward with the pilot study that itself addressed all of the "legal concerns" that administrators could have the university lawyers contrive.[8]

A SECOND ACCREDITATION CONCERN

The School of Business hosted its own accreditation visit in October 2013. Because the school is separately accredited in both accounting and business there were two distinct visit teams, one for each discipline.

During the meeting with tenured faculty, several faculty members told the business visit team that they and others had documented many issues with cheating in online classes, and that

---

[6] This fact likely contributed to the problem of test collaboration that many faculty had witnessed in the years prior – students who were in weekly face-to-face classes together had more opportunities to collaborate, and at a lower marginal cost.

[7] For the faculty members who were blind to cheating in the online courses proctoring proved to be very expensive.

[8] For all of the rumored involvement of the university's Office of General Council, there was never any direct communication with faculty members themselves nor anything in writing ever produced to indicate that there were, in fact, legal issues to confront. Administrators gave assurances in public that there were serious legal issues behind their reluctance to ask students to submit to proctoring and that they had discussed these issues with university attorneys at length on many occasions.

business faculty had been systematically prevented from proctoring by the dean of the School of Business and the provost's office, according to the definition of "online programs" as interpreted (to its advantage) by senior leadership. One faculty member told of being on the ad hoc university committee tasked with finding a solution, and revealed that the committee was in his opinion "a sham," really just a stalling tactic that had persisted for more than two years without any results. Finally, some of the faculty in this meeting told the audit team that there was no reason to expect that there would be either a School of Business or university proctoring pilot or any other viable solution on the table once the visit teams left campus and turned in their opinion to the dean.

As the business faculty were reporting to the business visit team in their meeting, several accounting professors were relating similar misgivings to the accounting visit team in a separate meeting – namely that they, too, had been prevented from proctoring in online courses on orders that originated from the highest levels of the university. This was unusual, especially since the accounting unit only taught a few classes online because of online hour eligibility restrictions from the state's CPA board.

Immediately after meeting with faculty, both visit teams met with two groups of students without faculty present. In their meeting the business and accounting graduate students complained about both face-to-face and online cheating, cheating opportunities given to students, and the lack of proctoring in online courses.[9]

Leadership at its finest

The findings of the accreditation team led to the meeting mentioned at the opening of the case: faculty were finally told by the dean, in public, that enrollment would suffer due to the school being place on probationary status, and that there would be dire consequences, perhaps even up to and including a reduction of faculty positions if enrollment fell due to an increased emphasis on academic integrity.

In that hastily-called faculty meeting of November 1st the dean said that the news was grim, and that the team was concerned about cheating and academic integrity, and that everyone was in "big trouble." He also reported that the senior leadership of the university "did not hold the School of Business without blame," and that if enrollment went down then there could be jobs lost, etc. After his 45-minute diatribe the dean refused to take any questions and stormed out of the meeting after vowing that changes were coming that would make everyone sufficiently uncomfortable.

Full disclosure

At that point, several professors had already asked the dean for a copy of the visit team's preliminary letter (which historically had been provided to the administration before the team leaves campus), but he had responded in writing that it was not available so soon after the visit. When asked again a few days later the dean responded that the school was "not required" to make that information public. Eventually, however, the dean was required to release both the preliminary and final visit team letters to the school's faculty, but only after several months of

[9] One response by university administrators following the business visit was to blame "hostile faculty" for prompting graduate students to mention academic integrity issues in their meeting with the visit team. Although this rumor was spread across the university in a very short period of time, there was no truth to it – students had acted on their own accord, and simply told regulators about their everyday concerns.

legal wrangling and a ruling by the state's attorney general which instructed the administration to make that information available immediately.

Success of a sort

During the usual December end-of-semester faculty meeting the dean announced that all of the college's online courses starting Spring 2014 would have proctored exams, and that students would be required to come to campus or use the existing online proctoring solution (left over from the limited pilot study) at their own expense. The School of Business would have an honor pledge (a rehash of the existing university handbook language) and faculty would be brought together for an all-day "retreat" at the beginning of the spring semester where they would come up with ideas about promoting academic integrity.

Every hurdle that the complaining faculty had faced for more than 4 years was swept away in **7-10 business days** after a threatened negative audit report. All of the hurdles at the university's legal level, if they had every really existed, disappeared immediately. There were no concerns about "truth in advertising" – and by mid-December of 2013 many "online" students had already registered without knowing that their spring courses would be proctored. There were no lingering concerns about having students contract individually with a service provider, either financial or in the name of privacy. No longer was having local students come to campus to take proctored tests considered a heroic "concession" by the provost's office. All of these seemingly insurmountable hurdles went away as if by magic in just a few days because they had been imaginary to begin with.

Even with this progress in the business school, the *ad hoc* committee, according to its chair, still struggled to get "permission" from university lawyers to begin a pilot study of various proctoring solutions that could be used at the university level. As of this writing the *ad hoc* committee has produced no conclusions or results, and the university itself still has no proctoring solution.

EPILOGUE

The School of Business now has a proctoring policy for all online courses to follow. This policy requires online or on-campus proctoring for any assessment in an online course that makes up more than 20% of the course grade.[10] The school is also promoting a comprehensive dialog about academic integrity in both online and traditional courses. The business school is on "continuing review" with its accreditor to make sure that things move forward without administrative red tape "from above."

It is probably too early to document much of an impact on enrollment, but there were likely a few students who were put off by having to pay for their own test-taking, and the introduction of proctoring may have had an adverse impact on enrollment of those folks. Other constituencies, however, have responded with a collective sigh of relief – it was about time that something was

[10] That does not, necessarily, mean that faculty follow the policy - approximately 15% of the faculty members teaching online courses have since found a way to avoid proctoring, usually by doing away with high-stakes assessment altogether or changing the weighting to less than 20 percent of the course grade. Since under the policy exams are required to be proctored on Saturdays during the semester, some faculty just found that to be too inconvenient.

done. The long-term dilution of the school's reputation has been stopped, at least until the next administrative challenge or initiative from on high.

The outspoken faculty leaders have been treated by both administrators and some other faculty as unwanted messengers, as could have been expected. The administrative response is obvious, but the responses of other faculty members have mostly been due to the perception of an increased workload after the new commitment to academic integrity and cheating prevention. Workloads for the faculty who brought this up in the first place have not really changed – they were already doing the "correct" things in order to prevent this type of student behavior (or at least increase its cost to the student). If the school's leadership had worked to anticipate and head off this problem when it was first addressed circumstances could have been very different, and much less costly, for every stakeholder.

QUESTIONS FOR STUDENTS

1. What is a "conflict of interest"? Who is potentially harmed by conflicts of interest in the case, as presented?

2. What is meant by the term "undue influence"? What costs can undue influence impose on stakeholders in a situation such as the one presented in the case?

3. What is an "agency conflict"? What mechanisms are usually used to repair or prevent agency problems in general? Is it reasonable to just assume that agents will act in the best interests of their principals rather than following their own agendas? What agency problems might be at work in the situation described in the case?

4. Imagine yourself in the role of student at Bayou U.

   a. At the beginning of the case, who are the primary decision makers in deciding how to protect academic integrity at Bayou U.? Are there other stakeholders who should be making the decisions instead?

   b. As a stakeholder, what costs would you experience from the original decision makers' behavior and decisions?

   c. What feelings would you likely have regarding the original decision makers and the process if you were subjected to this situation personally?

   d. What are the short-term effects of the original decision makers' action(s)? How would this be expected to change your behavior as a stakeholder?

   e. What are the long-term effects of the original decision makers' actions? How would this be expected to change your behavior as a stakeholder?

   f. After considering your answers to the questions above, outline the best way to resolve this situation in the future.

REFERENCES

Birtch, Thomas A. and Flora F.T. Chang (2014). The influence of business school's ethical climate on students' unethical behavior. Journal of Business Ethics, Vol. 123, pages 283-294.

Cameron, Kim (2006). Good or not bad: Standards and ethics in managing change. Academy of Management Learning & Education, Vol. 5, No. 3, pages 317-323.

Evans, Joel M., Linda K. Trevino, and Gary R. Weaver (2006). Who's in the ethics driver's seat: Factors influencing ethics in the MBA curriculum, Academy of Management Learning & Education, Vol. 5, No. 3, pages 278-293.

Reeves, M. Francis (1990). An application of Bloom's Taxonomy to the teaching of business ethics. Journal of Business Ethics, Vol. 9, pages 609-616.

Woiceshyn, Jaana (2011). A model for ethical decision making in business: Reasoning, intuition, and rational moral principles. Journal of Business Ethics, Vol. 104, pages 311-323.

OILFIELD SOLUTIONS CORPORATION

Robert Stretcher and Edward Blackburne,
Sam Houston State University

Assessing the viability of a proposed investment in a major capital asset is of critical importance to a firm's well-being. The expected cash inflows from a project are often laced with uncertainty. In the oil industry, investments will often have oscillating sales, operating costs that vary considerably, and tax rates and incentives that profoundly affect the firm's effective tax rates. This case summarizes the uncertainty surrounding an investment proposal. The details regarding the project and its environment are suppressed to allow the reader to focus on the mechanics of a Monte Carlo simulation using Excel. The company on which the case is based is also disguised.

An urgent request came across Derrick Wade's desk on Wednesday afternoon. It was a request direct from the CEO, with a last minute request for an analysis of an expansion project, for implementation in January 2014, if the analysis warranted its acceptance. The board was to meet the following Friday, and the information on which to base a decision was needed at that time. Using the averages provided, Derrick quickly calculated expected cashflows and a net present value for the project. It was positive. The challenge for projects in the oil and gas industry, though, was to assess the risk associated with projects in order to have not only average return expectations but also indicators of the likelihood of decision errors, such as rejecting a project that had a good chance of benefitting the firm or accepting a project that had a good chance of adversely affecting the firm.

Derrick had been with the company for eight years, and was in charge of the forecasting and analytics division, responsible for econometric and business modeling, forecasting, and data analytics. The task requested by the CEO was not unreasonable, given the division's access to the firm's information system. The project had been through the firm's operations and cost accounting departments, and estimates of the potential effect of the project on the firm's revenues had been provided by the marketing manager. Derrick called a meeting of three members of the analytics division to briefly discuss the proposal, and develop a plan of action for the analysis.

Derrick called the meeting to order. "Hi, folks," he began. "I need you to coordinate a simulation analysis for a project. The board will decide on it on Friday, and we need a brief report summarizing our findings for them by 2:30 in the afternoon. These packets contain the input information. The standard deviations for the inputs were determined from the estimates of best and worst case scenarios-we'll use these as the limit for three standard deviations. All the data is likely normally distributed."

One of the analysts, Kerri Graves, spoke up. "How many input distributions are we looking at? And... do we have sales and cost estimates already, or do we need to coordinate with marketing and accounting?" Kerri had become the catalyst for the group, and was a very task-oriented person.

"Good question," Derrick replied. "We have both the marketing estimates and the operating cost estimates. And who knows what will happen with the IRS - depends on whether the talking heads in Washington can stop bickering long enough to work on it. I hate to make an assumption, so lets just go with our current tax rate and leave substantial room for change, up *or* down."

THE ANALYSIS

By 10:00 the next morning, Kerri had summarized the information that the group had been provided and handed out her summary to all of the analysts (Exhibit 1). She informed them that she had also emailed them an excel file with the parameters already entered (Exhibit 2).

"We seemed to have the most success last time working in pairs and then comparing results, Derrick said. "Let's do that again." The analysts paired off and began the day's task. Kerri's head start had saved at least half a day. She had saved a set of notes from her financial modeling classes when she was an undergraduate, which were very helpful in simulations. Her notes appear in Exhibit 3.

Exhibit 1. Kerri's Summary

2013 Sales estimate (as if the project were already up and running): $140,800,000

Expected sales growth per year:

year 1: 8%, 1.8% std deviation
year 2: 7%, 1.4% std deviation
year 3: 7%, 1.6% std deviation
year 4: 5%, 1.8% std deviation
year 5: 5%, 2.2% std deviation
year 6: 4.5%, 2.6% std deviation
year 7: 4.5%, 2.8% std deviation
year 8: 4%, 2.9% std deviation
year 9: 4%, 3% std deviation
year 10: 4%, 3.2% std deviation

Cash expenses:

year 1: 47% of sales, 1.3% std deviation
year 2: 47% of sales, 1.5% std deviation
year 3: 47% of sales, 1.6% std deviation
year 4: 47% of sales, 1.8% std deviation
year 5: 47% of sales, 2.0% std deviation
year 6: 47% of sales, 2.2% std deviation
year 7: 47% of sales, 2.4% std deviation
year 8: 47% of sales, 2.6% std deviation
year 9: 47% of sales, 2.7% std deviation
year 10: 47% of sales, 2.8% std deviation

$337,220,000 Asset Expansion, depreciated on a 7-year MACRS schedule, with a 10-year life

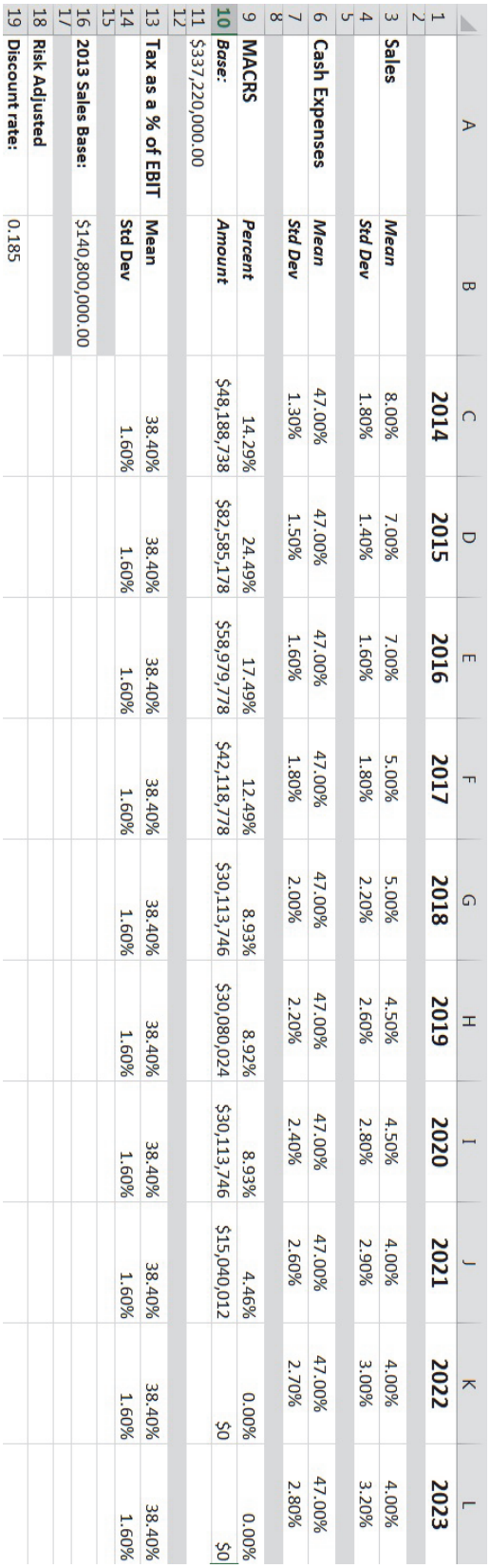
MACRS 7-year Depreciation Percentages per year:

year 1	14.29%
year 2	24.49%
year 3	17.49%
year 4	12.49%
year 5	8.93%
year 6	8.92%
year 7	8.93%
year 8	4.46%

Tax rates expected: 38.4% of EBIT on average, 1.6% standard deviation, based on higher income levels after the expansion and expected political action concerning tax policy)

Appropriate discount rate for the project: 18.5%

Exhibit 2. Kerri's Input Parameters Page



	A	B	C	D	E	F	G	H	I	J	K	L
1			**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
2												
3	**Sales**	***Mean***	8.00%	7.00%	7.00%	5.00%	5.00%	4.50%	4.50%	4.00%	4.00%	4.00%
4		***Std Dev***	1.80%	1.40%	1.60%	1.80%	2.20%	2.60%	2.80%	2.90%	3.00%	3.20%
5												
6	**Cash Expenses**	***Mean***	47.00%	47.00%	47.00%	47.00%	47.00%	47.00%	47.00%	47.00%	47.00%	47.00%
7		***Std Dev***	1.30%	1.50%	1.60%	1.80%	2.00%	2.20%	2.40%	2.60%	2.70%	2.80%
8												
9	**MACRS**	***Percent***	14.29%	24.49%	17.49%	12.49%	8.93%	8.92%	8.93%	4.46%	0.00%	0.00%
10	***Base:***	***Amount***	$48,188,738	$82,585,178	$58,979,778	$42,118,778	$30,113,746	$30,080,024	$30,113,746	$15,040,012	$0	$0
11	$337,220,000.00											
12												
13	**Tax as a % of EBIT**	**Mean**	38.40%	38.40%	38.40%	38.40%	38.40%	38.40%	38.40%	38.40%	38.40%	38.40%
14		**Std Dev**	1.60%	1.60%	1.60%	1.60%	1.60%	1.60%	1.60%	1.60%	1.60%	1.60%
15												
16	**2013 Sales Base:**	$140,800,000.00										
17												
18	**Risk Adjusted**											
19	**Discount rate:**	0.185										

Exhibit 3. Kerri's class notes

This simulation will involve many rows of calculated data. Spreadsheets, by default, recalculate the entire workbook when any equation is entered. Wait time may become problematic when 10,000 iterations times seven pages is recalculating. To speed things up a bit, you may want to turn off Autocalculation. This is done in Excel 2003 by selecting Tools… Options… Calculate from the toolbar and Select "Manual" or in Excel 2007-2013 by selecting Formulas... Calculation Options... "Manual." The user can then recalculate the workbook at any time by pressing F9.

You might also benefit from some guidance on how to specify random numbers or normally distributed random numbers: The "Math and Trig" function RAND() generates ***uniformly***-distributed random numbers. Random ***normally***-distributed numbers with, for example, a mean 100 and standard deviation 20, can be generated using the "Statistical" function NORM.INV, specifying Uniform random number inputs RAND() within the NORM.INV Formula: NORM.INV(RAND(),100,20)). This can be specified by Selecting Formulas... More... Statistical... NORM.INV and entering RAND(), 100, and 20, as the specifications. Newer versions may leave out the 'dot' in NORM.INV (NORMINV).

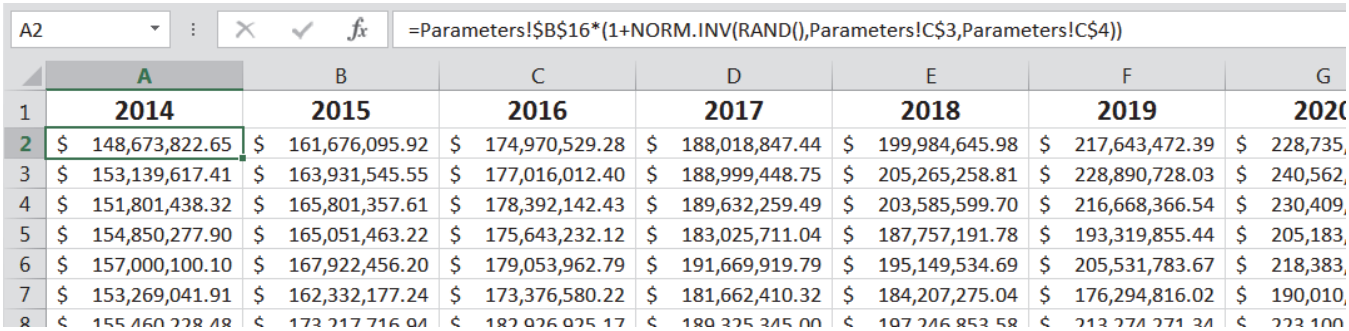
For a bit more orderly analysis, set up a standard workbook with seven worksheets: Parameters, Sales, Cash Expenses, Depreciation, EBIT, NCF, and PVNCF.

IMPORTANT NOTE: For each of the steps in the analysis, if Autocalculation is off, you can Manually Recalculate (by pressing F9) the data in order for the workbook to be updated.

The "Parameters" worksheet (Kerri's Exhibit) lists the parameters of the model. In the rest of the worksheets, it is most convenient to put the data in "row form" – see Exhibit 3 for an example sales worksheet from another case.

The Sales worksheet generates data as a simple random growth rate model. Specifically, $Sales_{t+1}=Sales_t*(1+g_t)$. For each cell of data, the growth rate is normally distributed, with mean and standard deviation specified in the "Parameters" worksheet. Since each year's sales may be serially correlated, the sales figure for each year should be based on the prior year's sales times $(1+g_t)$. Using this information, construct a row of estimated Sales data (with each column representing a specified year). Your own result will differ from Exhibit 4 since you will have different randomly selected inputs for each year's growth. Although only a few rows of data are shown as an example here, your spreadsheets will have 10,000 rows of data per sheet. The remaining worksheets are constructed in a similar fashion, with 10,000 rows each by 10 years of projections (2014-2023) in the columns.

Exhibit 3. Sales Worksheet Visual



A2 | =Parameters!B16*(1+NORM.INV(RAND(),Parameters!C$3,Parameters!C$4))

	A	B	C	D	E	F	G
1	2014	2015	2016	2017	2018	2019	2020
2	$ 148,673,822.65	$ 161,676,095.92	$ 174,970,529.28	$ 188,018,847.44	$ 199,984,645.98	$ 217,643,472.39	$ 228,735,
3	$ 153,139,617.41	$ 163,931,545.55	$ 177,016,012.40	$ 188,999,448.75	$ 205,265,258.81	$ 228,890,728.03	$ 240,562,
4	$ 151,801,438.32	$ 165,801,357.61	$ 178,392,142.43	$ 189,632,259.49	$ 203,585,599.70	$ 216,668,366.54	$ 230,409,
5	$ 154,850,277.90	$ 165,051,463.22	$ 175,643,232.12	$ 183,025,711.04	$ 187,757,191.78	$ 193,319,855.44	$ 205,183,
6	$ 157,000,100.10	$ 167,922,456.20	$ 179,053,962.79	$ 191,669,919.79	$ 195,149,534.69	$ 205,531,783.67	$ 218,383,
7	$ 153,269,041.91	$ 162,332,177.24	$ 173,376,580.22	$ 181,662,410.32	$ 184,207,275.04	$ 176,294,816.02	$ 190,010,
8	$ 155,460,228.48	$ 173,217,716.94	$ 182,926,925.17	$ 189,325,345.00	$ 197,246,853.58	$ 213,274,271.34	$ 223,100

The Cash Expenses worksheet contains values calculated simply as percentages of estimated Sales. For convenience, base the Cash Expenses in a specified cell on the same column and row specified cell from the sales sheet, and the same for the other sheets. In this simple model, EBIT is calculated as:

$$EBIT_t=(Sales_t - Cash\ Expenses_t - Depreciation_t)$$

and Net Operating Cash Flow ($NOCF_t$) is calculated as:

$$EBIT_t *(1-T) + Depreciation_t$$

The last worksheet is the Present Value of $NOCF_t$. Recall that:

$$PV(NOCF_t) = NOCF_t/[1+\delta]^{(t-2009)}$$

Where δ is the discount rate for cashflows. Construct a single column of data for PV(NCF) within the PVNCF worksheet, and another column representing NPV.

Excluding the "Parameters" worksheet, each worksheet should have a header row representing years 2014-2023 and a single row of data. This single row represents one possible future for our company (based on the chosen parameters). The purpose of the simulation is to generate many realizations of the future and use the distribution of valuations to make meaningful insights into the economic value of the project under consideration. To do so, we must fill each of the data worksheets with 10,000 rows of data. If the formulas were carefully constructed (with proper relative and/or absolute cell addressing) then this is a trivial matter. For example, suppose you have data in cells B3:K3 and you want to fill in the next 1,000 rows. To do so, click the "Name Box" in the upper left hand corner and type B3:K1002. This will highlight a block of cells (see Figure 8). From the Edit Menu, select Fill->Down and all contents are copied. Do this for the Sales, Cash Expenses, Depreciation, EBIT, NCF, and PVNCF worksheets. After all the data is filled, be sure to manually recalculate the cells if autocalculation is off (Note: The fill can also be accomplished by 'dragging' the cell or cells through to the 10,000th line using Excel's "+" function).

Add descriptive statistics of the distribution of NPV. Specifically, calculate the minimum, median, mean, maximum, and standard deviation of NPV using Excel's automated statistical

functions. For a visual reference, specify bins and form a histogram using Excel's Data Analysis Toolpack function "histogram." you might also want to show where the critical value of zero falls within the histogram. Draw conclusions about the probability of a negative or positive NPV, information that takes risk into consideration rather than just using a 'most likely' discreet value for NPV to make the decision on a project.

An analysis with this level of sophistication has the potential of making or breaking a capital budgeting decision, or the decision by a capital provider to either fund the project or not. Absence of an analysis such as this may cause the same to question the firm's ability to provide valid estimations of the impact of the project on the welfare of the firm's shareholders. Due Diligence!

FIRST WISCONSIN CHURCH

David Porter and Curt Weber, University of Wisconsin-Whitewater

This case concerns a capital budgeting decision where a church is determining whether to sell a piece of land leased to a developer who now wants to sell the building constructed on the leased land. The decision involves both quantitative and qualitative issues from the standpoint of a charitable organization that has limited capital budgeting expertise. As most parishioners are not versed in the language of capital budgeting, the case also provides an opportunity for students to explain capital budgeting concepts in a manner consistent with presenting their solution to a church congregation.

On Sunday December 4, 2011, the Board of Management of First Wisconsin Church, announced a special vestry meeting for the following Sunday, to discuss the proposed sale of its property to Walworth Developments. Six prominent members of the congregation gathered on Thursday the 8th, at Dr. Larry Harris' home to discuss the pros and cons of the land sale. The six members were on various committees within the Church and knew that their comments would have a major influence on the votes of the rest of the congregation on Sunday.

BACKGROUND INFORMATION

The property was purchased by the Church in January 1964 for $70,000. In 1984, the Church leased the land to Walworth Developments, who used the land to construct a $20,000,000, 8 story office tower. The 50-year lease generated annual income of $30,000 for the Church. At the end of the lease, ownership of the building would revert to the Church.

Walworth Development wanted to sell the building and in order to make the sale more attractive approached the Church to renegotiate their arrangement. Three proposals were suggested:

1. Extend the length of the lease to 2061. Increase the annual lease payments to $33,600 and add a 3% participation in net cash flow from rentals. Building ownership reverts to the church in 2061.
2. Buy the land outright.
3. Keep the present lease arrangement. In 2034, building ownership would revert to the Church.

THE MEETING

The following members of the congregation attended the informal meeting:

Dr. Larry Harris, a Dentist by profession, was unofficial chairperson of the meeting. He was in his early 40's and had been a member of the Church since his late teens.

Simon Short was a prominent businessman with a local financial corporation. He was in his middle 50's and had been a member of the Church for about 10 years.

Tom Lehman, manager of a major hardware retailing franchise, was about 35 years old and had been a member of the Church for 18 years.

Karen Kravitz was married to Kevin Kravitz, a retired professor from a regional University. Karen, a government ichthyologist, was attending the meeting in place of her husband who was currently out of the city. The Kravitzes had been members of the Church for 4 years.

Dr. David Dawson, about 45 years old, was an internist at a local Hospital. He had been a member of the Church for 13 years.

Frank Morphy, a young lawyer about 30 years old, worked for a small local law firm. He had only recently joined the Church but was considered very bright and an asset to the congregation and its committees.

All of those attending the informal meeting knew each other from previous meetings and other committees.

The meeting proceeded as follows:

Harris: First, I'd like to thank everyone for coming. As you all know we're here to discuss the possible sale of the land we leased to Walworth Developments. Simon has been kind enough to offer to discuss the financial implications, so I'll just turn the floor over to him.

Morphy: Don't we have to declare the meeting open?

Harris: It's just an informal meeting Frank.

Short: Thanks Larry. I've prepared copies of what I believe to be the important financial aspects of this problem (distributes the outlines). Basically we have three choices, sell the land for $1,136,000, extend the lease for a total income of $4,378,000 over the next 50 years, or do nothing. In the proposed new lease agreement, Middlesex has offered to raise the annual lease payments to $33,600 as well as adding a 3% participation in net cash flow. According to Middlesex, starting with an initial net cash flow of $365,260 and increasing rents at 5.5% per year, earnings from the new lease would total $4,378,000. Adding this number to our earnings so far, gives this option a total of $5,248,000. At the end of the lease the Church would own the land and the building.

Kravitz: I didn't approach it quite the same way.

Harris: Karen, I think we should let Simon finish.

Kravitz: Sorry.

Short: I looked at the problem from the standpoint of comparing the options on equal terms, then the option that gives the highest dollar value is clearly the option to select. For example, we know that selling the land would net us $1,136,000. If the $1,136,000 is

added to the $870,000 earned so far, it could be invested and earn interest to the year 2061. Even if we used simple interest at 6%, our total in 2061 would be $6,018,000 or $770,000 more than the extended lease option. Of course, if we used compound interest, this difference would be even greater. Similarly, we could calculate the value of the do nothing option. This option is the worst because it means we would only net $630,000 from the present lease over the next 21 years for a total of $1,500,000.

Dawson: Where does the 5.5% come from?

Short: It's just an estimate based on past growth rates. It is not guaranteed, particularly in today's environment. Middlesex has not raised the rent for 5 years.

Dawson: So there could be no growth rate or it could be negative?

Short: David, everything involves some risk. You could sprain you ankle walking the dog and not be able to make the big bucks on your operations for a couple of days.

Kravitz: Risk-return, risk-return, how many times have I heard that at home?

Morphy: What about the $365,260?

Short: That's the net cash flow this year after all expenses and fees.

Kravitz: Is the building fully rented?

Short: No. IBM used to rent the entire building but now they only rent three floors and 30% of the building is vacant. I think we should look at this as a positive since rents will go up when the building is fully rented and the tenants are more diversified so there is a smaller probability of a major exodus.

Morphy: True, but IBM could leave completely.

Short: In my opinion, any cut backs that companies wanted to make because of the recession have been made, so I doubt that would happen.

Lehman: Shouldn't we be considering what we could get for the land and the building? They must have some value at the end of either lease.

Short: That's true Tom. The land would undoubtedly have value but trying to project 50 years in the future is pretty difficult. The original building only had a projected 75 year life and may have to be torn down in 2061, so it really doesn't have any salvage value at all.

Lehman: What about 2034?

Short: Possibly a minor amount but I don't see the Church trying to sell it or we might try sell it for the cost of demolition. Either way it has no value.

Dawson: Did we have the land appraised to see if the Walworth offer is fair?

Harris: We retained the services of Mr. Eglington, one of the top appraisers in the city. His appraisal of the property was $1,134,000.

Morphy: When does the decision actually have to be made?

Harris: Walworth has given us until December 15th, if we plan to sell. That's a week from today.

Kravitz: These numbers still seem funny to me. Shouldn't we be comparing returns and not the individual numbers?

Short: I don't think there's much of a difference, Karen. For example, I've already shown that selling the land is the best option. If we look at it on a return basis, we are now receiving $30,000 on a piece of land worth $1,134,000. That's less than a 3% return and not an acceptable ROI which, by the way, is another reason for selling it. Basically, all of my analysis points to selling the land.

Kravitz: Well, I still don't think you're comparing apples and apples.
Dawson: Are there any other considerations besides the money? Is this a good time to sell the property?
Short: Do you mean where are we on the real estate cycle?
Dawson: Maybe. What I mean is land values fluctuate and are they high or low right now?
Short: That's the real estate cycle and an important consideration. Real estate can be very difficult to sell and land values do not always rise. This may be the only good opportunity we have to sell this land at a fair price.
Dawson: I don't think you quite answered my question. It may be a fair price at today's values but are today's prices high or low?
Short: In my opinion, we are getting good value. It wouldn't surprise me if the value of the building has declined since 2008 but the land has held its value fairly well.
Morphy: Why did the Church buy this land in the first place?
Harris: The Church was worried about protecting the Church surroundings but it's now clear that the present grounds are sufficient to satisfy that requirement.
Morphy: There may be another reason for selling the land now. At the present time, churches are considered charitable institutions and are not taxable. But governments at every level are looking for places to find cash. Some cities have argued that churches have the same access to roads and police that other residents and business have, so they should pay taxes. There is even a web site, taxthechruches.org. I know we don't want to pay tax if we don't have to.
Short: Churches will never pay taxes. No politician would survive such a campaign.
Morphy: Well they may not pay taxes on donations but I can see governments taxing investments, especially investments like office towers.
Short: I suppose it is possible but I still think it's highly unlikely.
Lehman: Do you think the Church, as a charitable organization, should even be owning such a highly visible investment like real estate?
Harris: An interesting point and if we did continue to lease the land, the Church certainly does not have the expertise to manage a rental property when the building reverts to the Church at the end of the lease. We would need to hire a management group and that has to be expensive.
Short: I really believe that selling is the only option.
Kravitz: I'd like to get back to these numbers for a minute. Where does Walworth get their $4,378,000?
Short: That figure was based on increasing the net cash flow from rents at 5.5% per year and adding 3% of the result to the constant lease payment of $33,600. As far as the 5.5% increase is concerned, it's not an acceptable return either when you consider that we could just plop the $1,136,000 from selling the land right into a mutual fund and start making 10%. The S&P 500 has averaged a 10% return over the last 25 years.
Kravitz: How secure is the 5.5% compared to the 10% over the 50 year life of the lease.
Short: As I explained earlier, Karen, trying to project out 50 years is quite useless.
Kravitz: Do you think the land will still have value in 50 years?
Short: Well of course, barring any unforeseen disasters.

Kravitz: So what you're really saying is that you are sure the land will have value in 50 years but you're not sure whether the money we receive from selling the land will have any value in 50 years.

Short: Sounds a little fishy to me.

Kravitz: Let's not do the fish jokes tonight.

Harris: I think what you're both trying to get at here concerns whether we convert a tangible asset, land, into a less tangible asset, paper money. I'm sure everyone here knows that the operating deficit this year is near $75,000. That's before investment income. It would be nice if the income from our investments could cover this amount. If we sold the land, part of the proceeds could be used to put the Church back in the black.

Short: And the remainder could be invested at a reasonable rate of return; certainly at a higher one than the 2.65% we're getting now.

Lehman: There was a time when the Church would attempt to increase the membership to solve such a deficit. After all we're a Christian organization not an investment corporation.

Short: But that doesn't mean we should make bad business decisions.

Lehman: No, but it might mean that the business facts have to be weighed in comparison with what the Church is supposed to be accomplishing.

Kravitz: Speaking of investment corporations Simon, who is going to manage the $1,136,000 should we decide to sell the land and are these costs considered in your comparison calculations?

Short: We could easily purchase long-term investment certificates at very little cost.

Kravitz: If all you're going to do is transfer from one long-term investment to another, why not just keep the land?

Short: Because we don't have any control over the price of land and we don't know if we could sell it at the time when we most needed the money. With the investment certificates, we could always get our hands on the money even if there was a small fee.

Kravitz: Apples and apples Simon. What's a reasonable return on real estate?

Short: That's a tough question. I might be able to look up returns on some sort of real estate index.

Dawson: Since I don't know what you are talking about, I'd like to look at this a different way. As you all know, I used to be a member of the Free Congregational Church. That congregation made the decision to sell its land and now the Church has no place to expand. I know a Church in Illinois decided against selling its land and still has a steady income from it today. Those members recommend against selling any land, particularly if it is contiguous with the land on which the church stands.

Short: What if the building has to be torn down at the end of the lease? What good is the land without the building?

Harris: There could be other uses for the land even if the building does have to be torn down. The Church could construct a senior citizen's apartment building for some of our parishioners where they, and others, could enjoy living in the city adjacent to their Church. This would have an added benefit of providing a ready-made nucleus of an ongoing congregation right on our property.

Short: Okay, but what about flexibility? If we sell the land we can not only cover the deficit but also invest the remainder in interest bearing securities that offer total flexibility. If we need the money at a later date, we know it is available and we can invest it in different assets depending on expected inflation, stock trends and interest rates. We have to remember that the main consideration in this decision is choosing the option that will give us the best return and secondly choosing the one with the most flexibility.

Kravitz: Fine, let's get back to deciding which option does provide the best return. Simon, did you happen to calculate the breakeven interest rate for the options?

Dawson: What's a breakeven interest rate?

Kravitz: Simon can probably explain it but Kevin said it would be a useful number if we could calculate it.

Short: It's the interest rate at which the $1,136,000 needs to be invested to equal the cash flows received by the lease option, including any terminal values. I don't have that number but I should be able to run some sort of an IRR on the computer at the office. But I think it's a waste of time and will still show that selling the land is the best option.

Morphy: It sounds like a good number to have, why don't you run that "IR" number.

Harris: I agree. By the way Karen, where is Kevin? We could use some of his academic expertise on this matter.

Kravitz: He left for Florida yesterday to get the condominium ready for Christmas. I could call him if you like.

Short: I don't see that we need to bother him with this.

Dawson: Let's get back to this breakeven number, if we did have such a number, what would we compare it with to see if we were getting a reasonable return on our money?

Morphy: As Simon mentioned earlier, we could always buy long-term government bonds, so it would seem reasonable to compare with these since they have guaranteed income similar to keeping the lease.

Kravitz: I don't think that comparison is quite right but I'll have to check with Kevin.

Morphy: What are government bonds making now Simon?

Simon: They vary quite a bite over time so I'm not sure what they are today. I am sure it's a lot more than 2.65%.

Harris: Well, I'd say we have a good start on the issues behind this decision. I also think that everyone should give the problem some thought between now and the next meeting because this problem is a little more difficult than any of us thought it would be and we really don't have much time to make the decision.

Harris: Simon, since you have heard all of tonight's discussion and you're the only one with the computer expertise to calculate that break even rate, I think it's appropriate that you work up the presentation for Sunday's meeting. I suggest you try to give equal weight to both the qualitative and quantitative factors and then recommend a decision. That way the congregation will have all the facts. If you need any help with the draft, I can help you on Saturday afternoon.

Kravitz: I can….

Short: Thanks anyway Larry but I don't think there'll be any problem.

Morphy: Good, then I move the meeting be adjourned.

Harris: Frank, you can do your stuff on Sunday. Karen, can I see you a minute before you leave?
Kravitz: Sure.

SHORTER CASES & EXERCISES

USING REGRESSION ANALYSIS TO APPRAISE HOMES IN HOT REAL ESTATE MARKETS

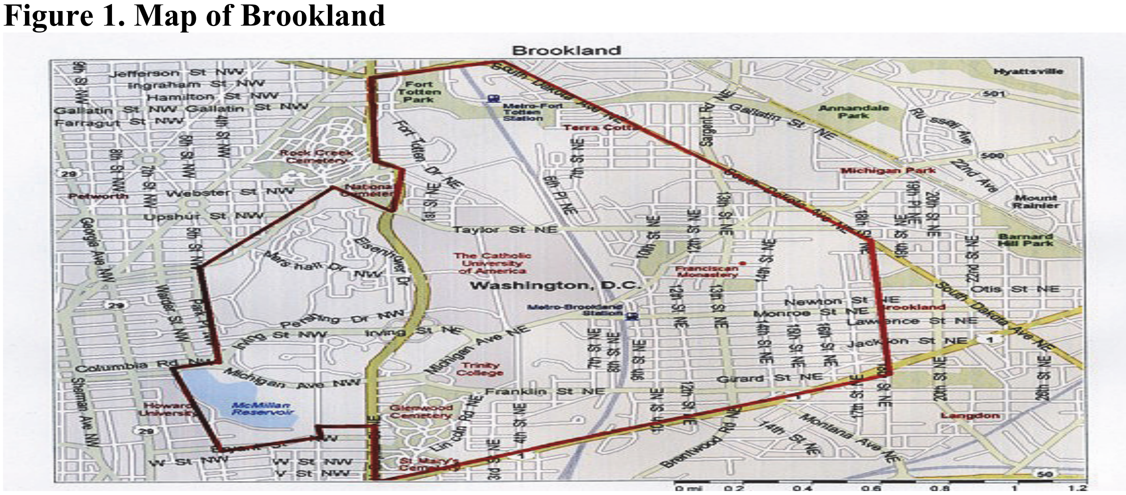
William Brent, Lynne Kelly, Debbie Lindsay and Russell Price,
Howard University

On Monday, June 23, 2014, Leigh Salem moved to a new real estate office located in Washington, DC. She had worked from an office located in suburban Maryland since 2007 and was a top agent. The DC Metropolitan Area housing market just experienced a disappointing Spring. May was the fifth consecutive month with year-over-year sales declines. While sales were sluggish for the entire region, Washington, DC was still considered a hot market. In May 2014, year-over-year median sales prices in DC increased by 8.1% and the median number of days homes remained on the market was 13. Leigh's new office is located in Brookland, a particularly attractive neighborhood in Northeast DC. Leigh wanted to become familiar with the market quickly to take advantage of the normal increase in activity that was expected to take place through August.[1]

WASHINGTON DC'S BROOKLAND NEIGHBORHOOD

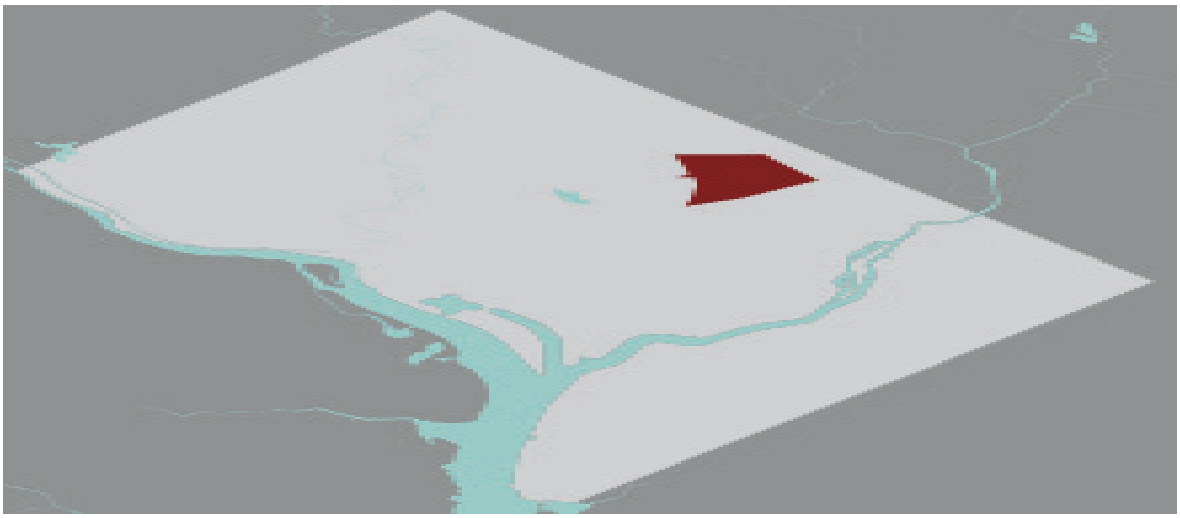
Although Brookland is approximately 4 miles from downtown DC, the neighborhood has a suburban feel. There is plenty of green space in the community, including a recreation center with an indoor pool, tennis courts, playground, and water park. While there are row houses and duplexes, most properties are detached colonials or bungalows situated on large lots. There are several shops, restaurants, and newer mixed-use developments with art studios and condominiums. A Metro Station is located in the community, providing easy access to the museums, sports arenas, and airports. Catholic and Trinity universities are located in Brookland.

Figure 1. Map of Brookland



Source: www.hananhomes.com/mapbrookland.htm

Figure 2. Map Showing Location of Brookland in Washington, DC



Source: en.wikipedia.org/wiki/Brookland_(Washington,_D.C.)

BROOKLAND'S HOUSING MARKET

Leigh gathered data on recent home sales. For the period January 2014 through June 2014, 64 homes sold for an average price of $422,452. The price range was $139,062 to $675,000. While examining the data, Leigh noticed the diversity of housing stock in the neighborhood. The oldest home that recently sold was built in 1900. This was a detached house on a large lot. The newest home that recently sold was a townhouse built in 2012 on a relatively small lot.

While a variety of home styles is appealing to buyers, Leigh knew that properly appraising homes in Brookland might be difficult because it could be challenging to develop a list of comparable transactions.[2] Brookland's housing market recently experienced a rush in demand from owner occupants and investors.[3] In order to be successful, Leigh had to be able to close deals quickly and provide market intelligence. Developing accurate appraisals would expedite transactions and generate repeat business and referrals.

USING REGRESSION METHODS TO APPRAISE HOUSES

After just four days in her new office, Leigh received her first listing in Brookland. A recent retiree who planned to build on her grandparent's land in NC was ready to list her row house. The house had the following characteristics: 3 bedrooms, 1 half bath, 1 full bath, 1125 sq. ft. house size, 4000 sq. ft. lot size, built in 1956, no renovations, no fireplace, and no garage. The seller informed Leigh that she wanted to sell the house before leaving the DC metropolitan area. Leigh wanted to list the house quickly. She needed to determine an appropriate listing price. She decided to conduct regression analysis using data on recent home sales in Brookland to statistically estimate the relationship between property characteristics and market value. Her plan

was to use information from a statistical model and the comparable transactions approach to price the row house.

Figure 3. Home Built in 1900

Source: Realtor.com, homes recently sold in 20018 zipcode, accessed June 2014.

Figure 4. Home Built in 2012

Source: Realtor.com, homes recently sold in 20018 zipcode, accessed June 2014.

Table 1. Recent Home Sales

Date	Price	Bed	Half Bath	Bath	House Size	Lot Size	Yr. Built	Det.	Ren.	FP	Gar.
1/13/14	542995	4	1	3	1850	9627	1927	1	1	0	0
1/22/14	305000	3	1	1	1186	3881	1936	1	0	1	0
1/22/14	399000	3	1	1	1502	5901	1952	1	0	1	0
1/22/14	487500	5	0	3	1748	6011	1913	1	1	1	0
1/29/14	270000	3	0	1	1100	4008	1919	1	1	1	0
1/30/14	281250	3	1	2	1897	5308	1997	1	0	1	0
2/3/14	225000	4	0	1	2400	8000	1915	1	1	1	0
2/5/14	349900	4	1	2	1134	3877	1938	1	0	1	0
2/7/14	550000	6	2	2	3156	6360	1936	1	0	1	0
2/8/14	321000	3	0	2	1064	8063	1955	1	1	0	0
2/11/14	294480	3	1	2	1600	4500	1952	1	1	1	0
2/14/14	440000	4	1	2	1848	3927	1936	1	1	1	0
2/18/14	163070	2	0	2	1128	7984	1924	1	0	1	0
2/19/14	415000	4	2	3	2610	5009	1910	1	1	1	0
2/24/14	537000	4	0	3	1660	4966	1939	1	1	1	0
2/26/14	325000	4	1	1	1452	6259	1906	1	0	1	0
2/26/14	515000	4	0	3	1664	6360	1920	1	1	1	0
2/27/14	585000	5	1	4	1704	3920	1916	1	1	1	0
3/4/14	180000	3	1	2	1920	3240	1979	0	0	0	0
3/4/14	242000	2	1	2	1161	1429	1982	0	0	1	0
3/4/14	432000	3	1	2	1664	6403	1925	1	0	1	0
3/6/14	599000	4	1	3	1307	3267	1924	1	1	0	0
3/14/14	350000	4	0	2	1488	6400	1916	1	0	1	0
3/14/14	549999	4	1	3	1520	3500	1927	0	1	1	0
3/18/14	446000	4	0	3	1919	7500	1900	1	1	1	0
3/18/14	479000	3	0	3	1948	3572	1939	1	1	0	0
3/19/14	615000	4	1	3	2638	10890	1900	1	1	0	0
3/31/14	455000	4	0	3	2000	9670	1928	1	1	0	0
4/3/14	450000	4	1	2	1755	5663	1925	1	1	1	0
4/3/14	455000	4	0	2	1554	4269	1917	1	1	1	0
4/4/14	355000	4	0	2	2100	3810	1923	1	1	0	0
4/7/14	459500	3	1	1	1602	9104	1933	1	0	1	0
4/8/14	359000	3	1	2	1640	2487	1928	0	0	1	0
4/8/14	475000	3	1	3	1897	5161	2000	1	1	1	1
4/10/14	494000	3	1	3	1980	4312	1931	1	0	1	0
4/11/14	500000	4	1	3	1120	3093	1940	1	1	1	0
4/13/14	360000	5	0	3	1134	3311	1925	1	0	1	0
4/14/14	430000	3	0	3	926	2570	1925	1	1	0	0
4/14/14	525000	3	1	3	1886	6674	1937	1	0	1	0
4/17/14	495000	4	1	3	2532	6621	1936	1	0	1	0
4/21/14	527000	4	0	4	1562	5009	1912	1	1	1	0
4/22/14	336000	4	0	1	1464	5009	1919	1	1	0	0
4/23/14	353600	2	1	1	864	1280	1941	0	0	0	0
4/23/14	499999	3	0	2	1182	4083	1933	1	0	1	0
4/24/14	470000	3	1	3	945	5314	1932	1	1	0	0
4/28/14	514000	3	1	3	1780	2744	1928	1	1	0	0
4/29/14	412000	3	1	1	1424	1568	1925	0	0	1	0
5/2/14	359500	4	0	1	1890	6400	1912	1	0	1	0
5/2/14	586000	4	2	1	1520	3180	1926	0	1	1	0
5/2/14	448000	3	2	2	2688	2222	2007	0	0	1	1
5/7/14	292000	2	1	1	1029	9148	1942	1	0	1	0
5/7/14	374900	3	1	2	1120	2396	1961	0	1	1	0
5/7/14	489000	3	1	3	1728	1350	2012	0	0	0	0
5/7/14	659000	6	0	4	1564	5793	1920	1	1	1	0
5/21/14	649000	4	1	4	1210	6882	1905	1	0	0	0
5/21/14	675000	4	1	3	2700	4182	1924	1	1	1	0
5/22/14	520000	3	2	2	2676	3720	2007	0	0	1	1
5/29/14	167250	1	0	1	812	825	1942	0	1	0	0
6/2/14	270900	3	1	1	1024	1440	1951	0	1	0	0
6/3/14	139062	4	1	3	1352	3833	1938	1	1	1	0
6/3/14	539999	4	1	3	1856	3746	1940	1	1	1	0
6/4/14	449000	3	2	2	1416	3311	1915	1	1	0	0
6/5/14	370000	2	1	1	1040	3025	1936	1	0	1	1
6/17/14	224000	3	0	3	1500	1279	1940	0	1	0	0

Source: Realtor.com, homes recently sold in 20018 zipcode, accessed June 2014.

NOTES

1. 60% of home purchases and sales are expected to take place during the months of May – August.

2. Developing a list of comparable transactions is the primary method of appraising single family homes. The process involves recording characteristics of the property that needs to be appraised and reviewing recent sales records for properties that are in the vicinity of the appraisal with a comparable set of characteristics. The prices of these comparable sales are used as benchmarks for providing the appraisal.

3. Estimates indicate that investors recently earned an average of $230,000 by flipping homes in Brookland.

TEACHING ETHICAL DECISION MAKING WITH FAMILIAR SITUATIONS

Timothy B. Michael and Melissa A. Williams,
University of Houston-Clear Lake

Finance pedagogy includes lessons in business ethics at every turn, and students are forced to contend with ethics in their school lives as well. Naturally, students will respond to ethical decision exercises that are based on situations that they might face while they are in school or in their early career. We present here a set of school, business and career situations that can be used to introduce students in finance or business courses to the components of ethical decision making. Our emphasis is on having students identify the conflict, decision makers, and other stakeholders. This list of decisions is useful as a semester-long starting place for in-class discussions, but it also works well as a standalone project that students can reflect on and work on individually. We provide our materials as an example and we include representative responses that we have received from several semesters of use with both MBA and undergraduate students.

INTRODUCTION

Several years ago our school's MBA committee asked members of the faculty to think about innovative ways to engage students in discussions about ethical decision making. At the time the committee had recently started to address the concerns of some faculty members that too little was being done across the school to promote academic integrity in the MBA classes. Another reason for this discussion was a growing emphasis on online course offerings at the university – it was becoming difficult for students to finish an MBA at our school without taking one or more courses online, and online courses seemed to pose special academic integrity challenges for professors and students alike.

After consulting colleagues, students, former students, and employers, we developed a list of common situations (Appendix A) that students might encounter in their school or work environments that required ethical consideration. We thought that it was important to emphasize student decisions first in order to give particular relevance to the questions and help the students find a connection to their own lives. In addition, we wanted to include work situations because many of our students work in their careers already and have a good deal of experience with these types of decisions, and the remainder of our students often face ethical challenges when starting their careers.

ETHICS FROM DIFFERENT SITUATIONS, NOT SITUATION ETHICS

We should distinguish here between asking students to consider ethics in small bites, using situations, and "situation ethics." Situation ethics, a term coined by Fletcher (1967), is the process of making decisions based on the context of the situation without regard to fundamental principles of ethics or social norms. We make no reference to a moral framework in our exercises, but we assume that asking students to identify costs and benefits and map actions to outcomes in a given situation will help them frame things in a way that they can understand. This type of revelation should lead to an understanding of the principles at work, and we have found that this assignment is successful at helping students identify acceptable standards of behavior and equity on their own without unnecessary or potentially cumbersome context. The questions they face are those that might come up at any time in their lives, and therefore are more important to them when having a class discussion or working an assignment.

We also chose to use situations (and their attending common excuses) because the process of digesting information and formulating responses in this exercise is very close to the type of learning process that students use with case studies. In doing case analysis students are often asked to consider themselves in the role of decision maker, and using our situations as a basis for discussion requires the same abstraction. This type of exercise is fairly natural for instructors and students who are used to preparing and discussing cases in class, and giving this kind of challenge to uninitiated students helps prepare them both for more in-depth Socratic discussions in the classroom but also for working world challenges after graduation will they will be asked for create thoughtful responses on the fly.

Our list of situations was originally designed to help facilitate class discussion in our department's required MBA Financial Policy course as a semester-long theme. This course already makes reference to many topics relevant to the situations in the list: reciprocity, conflicts of interest, agency theory, asymmetric information problems, free rider problems, the stakeholder model and corporate social responsibility (CSR). Because these topics are also prominent in our MS Finance capstone class, Seminar in Finance, we eventually incorporated this handout in the class discussion for that course as well. As we were working to add these exercises and discussions to these finance courses, the MBA Committee moved on to larger projects, including a re-emphasis on student teambuilding.

THE ASSIGNMENT

In 2013 the School of Business decided to provide resources for students who might be interested in developing their ethical awareness.[1] To this end several management professors put together a larger set of resources that faculty could use within a BlackBoard online shell that would be an introduction/review of business ethics for any interested student regardless of the student's initial level of understanding. These resources included fundamental, self-paced instruction on such topics as ethical decision making and recognizing ethical dilemmas. This was a natural fit with our pre-existing list of ethical situations, and so we began offering students extra credit points for considering and writing about some of the ethical situations in the list, pointing out that they should consult the School of Business resources, online, or any other external resources that would help them form ideas and come up with their discussion of the assignment. Although we assumed

[1] This was done, in part, to address accreditation concerns.

that students had some prior exposure to ethical decision making, any student could benefit from discussing these situations and learning about characteristics of ethical decisions in that manner.

A recent version of the assignment is included here (Appendix B). Over time we have adapted it according to student suggestions. We have used this assignment in both online and traditional (face-to-face) courses.

We first asked students to consider decisions from the perspective of the decision maker (Appendix B, Part I). The framework for students is in Exhibit 1. Our questions are designed to help students pace themselves through the most important considerations in the ethical decision making process.

Exhibit 1. Ethical Situations as Decision Maker

From the list of ethical situations in Section I of the "Ethics Considerations for Business Students" handout on BlackBoard, **choose 3** of the situations presented and answer the following questions. Please rewrite the situation at the beginning of your response.

1. Who is the primary decision maker who can change the ethical situation?
2. Who are the stakeholders in the situation? Identify as many as possible. Note: this will most likely include the decision maker.
3. What are the (potential) short-term costs and/or benefits of the ethical situation for both the decision maker and the other stakeholders?
4. What are the (potential) long-term costs and/or benefits of the ethical situation for both the decision maker and the other stakeholders?
5. After considering all of the above, outline the best resolution to the ethical situation or example.

After students chose the situations they wanted to address from the decision maker perspective we asked them to choose a set of situations from the perspective of stakeholders *other than* the decision maker (Appendix B, Part 2). This is shown in Exhibit 2.

Exhibit 2. Ethical Situations as Stakeholder

From the list of ethical situations in Section II of the "Ethics Considerations for Business Students" handout on BlackBoard, read through the list and **find 3** situations that you would like to consider. Answer the following questions for each one.

1. As a stakeholder, what costs would you experience from the decision makers' behavior(s)?
2. What feelings would you likely have regarding the decision maker and the process if you were subjected to the particular situation in question?
3. What are the short-term effects of the decision makers' action(s)? How would this change your behavior as a stakeholder?
4. What are the long-term effects of the decision makers' action(s)? How would this change your behavior as a stakeholder?
5. After considering all of the above, outline the best resolution to the ethical situation or example.

Finally, we asked for general comments on the assignment (Appendix B, Part 3). We wanted to provide students with a way to give feedback on the assignment as well as have an opportunity to comment on their feelings and concerns after having answered some of the situational questions.

FINAL THOUGHTS

Students have been very receptive to the idea of learning about ethics in a context that is relevant to their semester-by-semester lives. We include some of the responses we have received in Appendix C. The thought and depth of some of the responses demonstrate how important these topics can be for students. It helps to offer them extra credit, but even the students who will not likely "need" extra credit end up writing thorough and thoughtful responses to these questions in our experience.

With very little preparation on the part of the instructor or student, students end up learning about the context of ethical decision making on their own terms. Faculty give students a chance to express themselves on decisions that might be very important to them during their college and early professional years. We have found this to be a very fulfilling exercise, whether using the list for class discussion or for written response or both, and we present it here for your consideration.

REFERENCES

Birtch, Thomas A., and Flora F.T. Chang (2014). The influence of business school's ethical climate on students' unethical behavior. Journal of Business Ethics, Vol. 123, pages 283-294.

Bruner, Robert F., Benton E. Gup, Bennie H. Nunnally, Jr. and Laurence C. Pettit (1999). Teaching with cases to graduate and undergraduate students. Financial Practices and Education, Fall/Winter, pages 111-119.

Bruner, Robert F. (2001). How and why to begin teaching with cases. Available at SSRN: http://ssrn.com/abstract=148009

Caldwell, Cam (2010). A ten-step model for academic integrity: A positive approach for business schools. Journal of Business Ethics, Vol. 92, pages 1-13.

Cameron, Kim (2006). Good or not bad: Standards and ethics in managing change. Academy of Management Learning & Education. Vol. 4, No. 3, pages 317-323.

Dobson, John (2008). Introducing ethics into the finance curriculum: A simple three-level guide. Journal of Financial Education, Vol. 34, pages 1-18.

Evans, Joel M., Linda K. Trevino, and Gary R. Weaver (2006). Who's in the ethics driver's seat? Factors influencing ethics in the MBA curriculum. Academy of Management Learning & Education. Vol. 4, No. 3, pages 278-293.

Fletcher, Joseph (1967). Situation ethics: The new morality. Philadelphia: Westminster Press.

Goodpaster, Kenneth E. (1991). Business ethics and stakeholder analysis. Business Ethics Quarterly, Vol. 1 (1), pages 53-73.

Kester, George W. (2011). Reflections on thirty years of using the case method to teach finance. Working paper – Washington & Lee University, 22 pages.

Nunnally, Bennie H., Jr. and Michael D. Evans (2003). Case teaching and the integrative process. Journal of Financial Education, Vol. 29, pages 75-86.

Parkinson, John (2008). Case studies and how they are used. Journal of Business Case Studies, Vol. 4, Number 12 (December), pages 1 – 6.

Reeves, M. Francis (1990). An application of Bloom's Taxonomy to the teaching of business ethics. Journal of Business Ethics, Vol. 9, pages 609-616.

Welker, Jan and Lisa Bernardino (2013). Integrating ethical decision making in multiple business courses. Academy of Educational Leadership Journal, Vol. 17 (4), pages 77-93.

APPENDIX A

Handout: Ethics Considerations for Business Students (4 pages)

I. Ethical Dilemmas in Higher Education: Students as Deciders

Think about each of these decisions from the standpoint of the decision maker. What are the likely ramifications of these short-cuts, both short- and long-term? Are you considering all of the stakeholders?

1. "Free-riding" by failing to do one's fair share of work in a group project: "But everyone else seemed to have it under control."

2. Cheating by working together on an online test: "You go first on this exam, I'll go first on the next exam. Everyone does it."

3. Cheating by paying someone to take an online test: "Why not? Nobody checks."

4. Cheating to defend your GPA: "What would YOU do?"

5. Cheating by printing out online exams: "Why not? There's nothing stopping us."

6. Cheating by plagiarizing a paper: "Why not? Most faculty don't even check, so it must be OK with them, right?"

7. Cheating by figuring out ways to get out of taking tougher classes: "Why not? Everyone else games the system."

8. Cheating/plagiarizing ostensibly because of cultural differences: "That's how it's done in my home country."

9. Cheating by lying on one's resume. "Why not? Everyone does it."

II. Ethical Dilemmas in Higher Education: Students as Stakeholders

To turn things around, think about these issues from a general stakeholder perspective instead of a decision-maker perspective. All of these should be considered issues of "student equity" and basic fairness, and you should try to recognize the impact that these decisions can have on the value of your degree and the long-term reputation of the University and the School of Business.

1. A faculty member fails to plan and/or account for/prevent free-riders in group projects: "I can't be responsible for their group dynamics."

2. A faculty member fails to require the same rigor in online classes as in face-to-face: "It's

just too much trouble."

3. A faculty member fails to prevent and/or screen for cheating behaviors in online classes: "It's too much work, and it doesn't work anyway."

4. A faculty member fails to prevent and/or screen for cheating behaviors in face-to-face classes: "It's too much trouble, and besides, my averages are still low so it must not be an issue."

5. A faculty member fails to prevent and/or screen for plagiarism in written assignments: "There's no way to do it consistently, and we can't successfully prosecute it anyway."

6. University administrators fail to protect intellectual property in online courses: "It's just impossible to keep it from being copied."

7. University administrators allow students to circumvent their required programs of study by substituting less rigorous courses: "Everybody does it."

8. University administrators fail to allow faculty to preserve the academic integrity and reputations of their programs by restricting evaluation methods such as proctoring in online courses: "It might scare some students away."

9. University administrators and/or faculty fail to provide reasonable opportunities for students to graduate by taking the modality that they signed up for, in particular with face-to-face students, again at the cost of the university's long-term student base and reputation: "But we have to promote our other programs…"

10. University administrators and/or faculty fail to support a culture that opposes academic dishonesty at the cost of the school's long-term reputation: "It might scare some students away." Again.

III. Ethical Dilemmas in Financial Management Practice

Here are some examples of the types of decisions that new hires as well as seasoned financial managers might be expected to make.

Situational Cases: vignettes from everyday encounters

1. As a newly-hired clerk in a small business, you're asked to delay several important regulatory filings by making (fallacious) excuses to the regulatory bodies.

2. In counting and indexing inventory for the small business you work for, you discover that some of it is very far out of date and has a value significantly below what's recorded on the company's books.

3. In your role as clerk you discover that one of the partners in a small business has been making unauthorized withdrawals of capital over the past few years and paying themselves quite a bit more than the other partners.

4. After working at a firm for a few months, you accidently discover that although your corporation has a rigid set of standards for decision-making that it touts in public, a completely different set of rules and decision-makers is used in private. Additionally, an elaborate system has been developed to hide that "shadow process" from the rest of the organization that leaves some important stakeholders out of the decision-making process.

5. As a recent hire at a small firm you discover that some of the corporate policies are not really enforced for some of the staffers at the company.

6. As a junior employee of a government contractor, you discover that your boss is a mole who's leaking information to a formerly-hostile competing company. This boss is the same one that has mentored you for years, and whose judgment you trusted implicitly until you discovered that she was working for the "other side."

7. You accidently overhear other workers at lunch talking about an upcoming "en masse" defection to another software developer. They don't know that you know. Your mentor and direct boss is one of the founders of the company. What do you do?

8. Your boss pressures you to aggressively "upsell" services to customers and/or create situations where it would appear that these additional services might be a natural fit for some customers that ordinarily might not need them.

9. Your boss pressures you to create a bonus system for the employees who you supervise based on "upselling" of questionable consumer services in a business that is traditionally dependent on word-of-mouth and long-term customer relationships. What do you do?

IV. Strategic Aspects: "Big Picture" topics

These are some of the broader ethical questions confronting the finance profession in recent years.

1. What are the ethical considerations of insider trading? How does this contrast with the legal theory used to define and prosecute illegal trades in the public interest? What are the implications for the long-run success of financial markets?

2. What are the ethical considerations of earnings management or smoothing practices? How does this affect the value of the corporation (if at all)?

3. What ethical considerations must be made when designing compensation and/or bonus programs? What are the considerations of the various stakeholders involved, and which perspectives should take precedence over others?

4. What are the ethical dimensions of the backdating of options awards in executive compensation? How has this impacted the various stakeholders involved?

5. What are some ethical considerations in the application of "fair value" standards in accounting?

6. What are the ethical implications of government programs that promote creating mortgages for people who will not be able to pay them back?

APPENDIX B

Ethics Modules Material Instructions (2 pages)

Satisfactory completion of this assignment is worth 4 extra credit points that will be applied to **your final course average**. You can complete this assignment even if you don't "need" the extra credit points (in fact, it would be **a really good thing** if everyone did it).

The UHCL School of Business has produced several student resources to promote awareness of behavioral ethics, and these are contained in the "Ethics Modules Material" that you can find in your BlackBoard shell. Some of these items are designed for specific functional areas (finance, accounting, etc.) but others should be valuable for many different students.

Before completing Parts I and II you should probably review the slides titled "Ethics and CSR" that have been provided in the Ethics Modules Material on BlackBoard. Some of the concepts therein will be familiar to you from your studies thus far, and others represent simple rules of social behavior. Feel free to use the terms and terminology from these slides in your responses below, but you can also complete the rest of this assignment without having to pull ideas directly out of these slides. You are free to use any reference materials that you wish on this assignment.

Part I. Ethical Situations as Decision Maker (2 points total)

From the list of ethical situations in Section I of the "Ethics Considerations for Business Students" handout on BlackBoard, **choose 3** of the situations presented and answer the following questions. Please rewrite the situation at the beginning of your response.

1. Who is the primary decision maker who can change the ethical situation?

2. Who are the stakeholders in the situation? Identify as many as possible. Note: this will most likely include the decision maker.

3. What are the (potential) short-term costs and/or benefits of the ethical situation for both the decision maker and the other stakeholders?

4. What are the (potential) long-term costs and/or benefits of the ethical situation for both the decision maker and the other stakeholders?

5. After considering all of the above, outline the best resolution to the ethical situation or example.

Part II. Ethical Situations as Stakeholder (2 points total)

From the list of ethical situations in Section II of the "Ethics Considerations for Business Students" handout on BlackBoard, read through the list and **find 3** situations that you would like

to consider. Answer the following questions for each one.

1. As a stakeholder, what costs would you experience from the decision makers' behavior(s)?

2. What feelings would you likely have regarding the decision maker and the process if you were subjected to the particular situation in question?

3. What are the short-term effects of the decision makers' action(s)? How would this change your behavior as a stakeholder?

4. What are the long-term effects of the decision makers' action(s)? How would this change your behavior as a stakeholder?

5. After considering all of the above, outline the best resolution to the ethical situation or example.

Part III. General Comments (optional)

Please take a moment to look through the other items under "Ethics Module Materials" and comment on the suitability of these materials for graduate students who are learning about business ethics. You should consider both positive and negative aspects of this material in your comments. In addition, feel free to make suggestions for other types of material and/or educational experiences that might be useful to help graduate students understand the context of business ethics.

APPENDIX C

Representative responses from students
(2 pages)

I.
A faculty member fails to require the same rigor in online classes as in face-to-face: "It's just too much trouble."

The big issue at hand in this situation is the long-term reputation of the university. Does it want to be known for allowing students to skate through without learning in on-line classes or for well-prepared individuals entering the work force upon graduation? Every faculty member is responsible for upholding this reputation through their individual classes and work. With websites such as Rate-My-Professor well-referenced by students, word of a lax professor or class option spreads like wildfire. Any student is likely to take any possible short cuts for two reasons: first that it is a path of least resistance towards their goal of graduation or a job and second, because they have a trust in the institution that whatever they do, they will be well prepared for graduation and the world beyond. Short-term then, it is probably well thought of to have an easy online class to help boost your GPA. Long-term reputations will suffer for this decision on the part of the professors.

II.
A faculty member fails to prevent and/or screen for cheating behaviors in online classes: "It's too much work, and it doesn't work anyway."

1. As a student who is trying to work hard and understand the material, I face the issue of being graded on an unfair scale. If my work is expected to be graded next to the work of someone who has plagiarized a paper, my work could look amateurish and receive a lower score.
2. I would be doubtful of the teacher's teaching skills and even feel that I was in a class that the professor did not care about. However, this might also relate back to my understanding of online classes. If everyone else is cheating, it only makes it more reasonable as a stakeholder to also cheat merely to keep up.
3. The short term effects for the decision maker is the less brain power and monitoring they have to perform, they save time and energy, but as a stakeholder, I stand to lose a better grade and standing with the professor who I may need for a recommendation or future class.
4. The long-run turn effects for the decision maker include losing their teaching position. If they knowing allow cheating in their "classroom" it is giving the go-ahead that cheating is allowed and everyone should participate. As a stakeholder, I could potentially have to re-take courses and have my grades questioned even if I was not participating in the cheating.

III.
"Free-riding" by failing to do one's fair share of work in a group project: "But everyone else seemed to have it under control."

Q. What are the (potential) long-term costs and/or benefits of the ethical situation for both the decision maker and the other stakeholders?

A. Long-term benefits for any of the stakeholders are minor if they exist at all.

Long-term consequences for the decision-maker include: establishing negative relationships with peers, especially if word gets around about their behavior (undesirable reputation); and lack of preparedness for a job in which he or she will be expected to know what they have been taught in school. However, the decision maker may ultimately feel more negative consequences because of being part of the larger group of stakeholders. If this behavior is tolerated by the student's group members, student peers at the institution, instructors, and the institution's administrators, it could become pervasive within the institution. If this occurs, it could lead to a reputation for the school of not turning out qualified workers and could also lead to removal of accreditation from the institution. These results would likely lead to a de-valuation of the degree and of other degrees held by past students of the institution (i.e. employers shy away from hiring people with a degree from this university because they have established a reputation for turning out unqualified workers and they are no longer accredited). This situation could lead to lower enrollment and potentially affect the employees of the institution as well as those of supporting service industries (through job elimination).

IV.

Cheating by figuring out ways to get out of taking tougher classes: "Why not? Everyone else games the system."

The decision maker in this ethical decision is the cheater himself. Other stakeholders involved, are the cheater, the University, and the future employer of the student. The cheater is looking for an easy way out to earn a valuable degree.

In the short run, the student cheats himself, because he ends up missing out on some of the valuable knowledge he could attain in the more difficult classes. Also, the University could develop a reputation of being too easy by the cheater playing the system. Future employers could deem the University as substandard which could hurt future students of the University.

Some long term costs include the student learning manipulation instead of doing his work honestly. This could hurt his career in the long run as learned deviant behavior that produces the results the student is after, could become his way of handling business in the future. This can hurt an organization when short cuts and cheating to get by hinder customer service and overall output. It could also get a firm into legal trouble. Not only will the employer of the student have issues with the game playing, but the University sacrifices its brand in the meantime as employers of these graduates realize that the University must not meet certain standards if they are awarding degrees to these manipulators. Overall, manipulating the system hurts everyone involved in the University system as well as future employers. However, it affects the student more because he ends up not learning a good work ethic, which is imperative to perform on a job.