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***AIRA Journal's* largest issue to date: 64 pages!**

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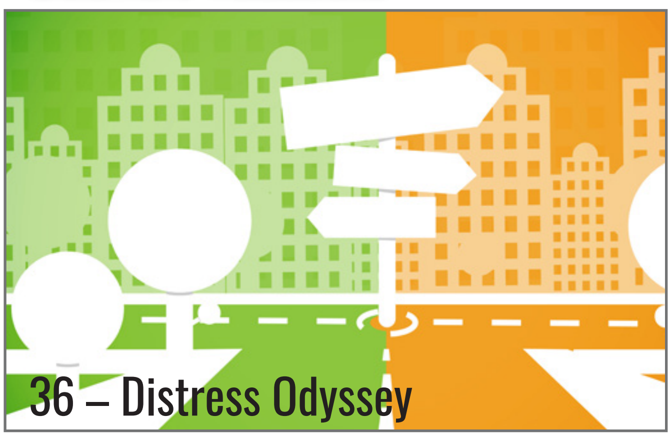
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From the Executive Director's Desk

JAMES M. LUKENDA, CIRA
AIRA

Transition of a Different Sort

It seems like an age ago that I first wrote to the AIRA membership about Tom Morrow and my transition of the Executive Director position. Who would have thought that three months later our world would have changed so dramatically?

I am pleased to report that the Association is on a good footing. The staff – Terry, Michele, Mike, Valda and Cheryl – are in good health, social distancing, working from their homes, and providing a continued level of membership service that would be exemplar under normal circumstances. I am grateful for having them as colleagues.

As you are all aware at this point, our June annual conference, AC20, is not happening as we planned. I will leave it to Bryan Ryniker's letter to provide you with the details of our pivot and plans to provide you with the education sessions the membership has come to expect.

On a more day-to-day basis, AIRA has heard from a number of former members, some retired members, and professionals who have not previously been deeply involved in the turnaround and restructuring arena. They have been reaching out to renew their relationship with the Association, update their skills, and/or prepare for the anticipated increase in restructuring demands as the economy re-opens and companies begin addressing the results of deferrals and forbearances in their finances.

In its May 18, 2020 Specialty Consulting Report, William Blair & Company, L.L.C., reports that while overall consulting demand is down as the pandemic has caused a pull-back in corporate spending on consulting services, backlog is building in such consulting areas as healthcare, M&A, and litigation. Blair expects elevated demand for restructuring activity to persist in any scenario projected as the economy moves forward.

We have heard from a number of sources that there will be practices in their organizations which will be drawn into restructurings. They will need to educate those individuals about the nature of the environment, the peculiarities of out-of-court restructurings, and the technical requirements of providing services to parties involved in cases brought under the U.S. Bankruptcy Code.

This has resulted in an increased demand for CIRA and CDBV training as well as an opportunity for AIRA to provide assistance with educating the non-CIRA track professionals who will find themselves involved with turnarounds and restructurings as the nation and the world move forward.

To meet this need, in April, AIRA piloted an eight-hour introductory training session, Understanding the Bankruptcy Code and Distressed Business Environment. AIRA is conducting a second session in May. To give you an idea of the demand for such an introductory course, over 200 professionals from the U.S., Asia, and Europe participated in the April session. We intend to offer additional sessions as demand indicates. Please see the AIRA website for further details on this offering and the schedules of training for CIRA and CDBV.

As the Association has navigated these unusual times, I want to thank the AIRA staff again for their commitment and assistance. I also want to express my appreciation for the firms and individuals who have continued to support and sponsor AIRA and our mission and events, and whom we proudly indicate on the AIRA website. Lastly, I am grateful for the support of the AIRA board. Your involvement with the Association and the industry makes this a professional practice area that provides a necessary contribution to the economic health of our country and the world.

Stay well and let us look forward to the future,

Jim

A Letter from AIRA's President

BRIAN RYNIKER, CIRA
Ryniker Consultants

Each year in April and May the Association is a-buzz, finalizing plans and panel materials, for our June annual conference. This year we were scheduled to visit the windy city, Chicago, IL. After months of work, our planning committees had prepared current sessions for our two all-day pre-conference and annually well-received programs, *Bankruptcy Taxation* and The *Financial Advisors' Toolbox*; sixteen conference panel discussions covering topics as diverse as crypto currencies, the new small business subchapter V, and the intersection of mass torts and bankruptcy; engaged keynote speakers, Anita Alvarez and Allen Sanderson; and made arrangements for carefully selected social events. All this planning was initiated and guided by our conference co-chairs and the planning committee. Under their direction, the panel moderators and speakers devoted hours of research and analysis in preparation.

Then… something wicked this way came (with apologies to Ray Bradbury). I don't need to say more about the pandemic.

AIRA's board, conference co-chairs and planning committee caucused. We monitored developments locally and in Chicago. It was not an easy situation to address. But we are a resourceful and dedicated group whose day jobs require us to think quickly and thoroughly, and to act with resolve. With the pandemic keeping us all grounded and working from home, the Association pivoted its live 36th Annual Conference to a month-long Annual Webinar Series starting in early June.

This change entailed more than a simple move on-line. Our moderators and panelists immediately began to evaluate if their previous topics and materials were still relevant in the current environment and began to either supplement their papers or to completely scratch and retool their presentations to better address the catastrophic changes to the economy and how those changes might affect our clients. While ZOOM ® and WEBEX® have been around for a while, and most of us have at least some familiarity with internet presentations, everyone is receiving a crash course in the new reality of mass electronic communications. Given the effort required, I am grateful that the Association has had the time and the planning committee's dedication to make these adjustments. I know the membership counts on the annual conference to provide continuing professional education, and our speakers deserve the recognition of their expertise that the annual conference forum provides.

I can now say we have a great month ahead of us with topics available for everyone, from beginner associates to experienced partners. Given the newness of this effort, there may still be a few bumps in the road. What would a conference be – either in person or on-line – without a technical glitch or two? Regardless, I am confident you will find attending these sessions will expand your knowledge and professional skills.

I want to thank the conference Co-chairs – Nancy Peterman, Esq. (Greenberg Traurig, LLP), Alpesh Amin, CIRA (Conway MacKenzie), and Jean Hosty (Piper Jaffray) – as well as the entire planning committee, our sponsors, and the AIRA staff for all their hard work and support in planning, implementing, and meeting the challenge of "restructuring" this year's conference.

Let's be careful out there,

Brian

OPECALYPSE NOW, CORONAVIRUS AND THE WORLD ECONOMY[1]

J. MICHAEL ISSA
GlassRatner Advisory & Capital Group

Primary Themes

Since the all-time peak of $140 for West Texas Intermediate (WTI) in June 2008, the price of crude oil has suffered a major drop of approximately 90%.[2] At the end of April 2020, the spot price for WTI had fallen into the mid-teens, while Brent was trading in the $20 range.[3] Shockingly, on April 20, 2020, WTI closed at *negative* $37, as the May contract expired and there was no available storage.[4] As recently as December 2019, WTI was trading at $60 and the futures curve demonstrated an expectation for longer term prices in the upper $50s.

Three things have occurred that caused this price collapse:

1. Saudi Arabia proposed a production reduction to firm prices and asked Russia to cooperate, as they did in 2016. Russia declined; Saudi Arabia retaliated, and a price war ensued. Russia's unwillingness to cut production appears to reflect a strategy of trying to crush the American shale producers, whose remarkable increase in production has largely neutralized OPEC's pricing power.[5] Later, an agreement was reached to cut production, but oil prices did not react as expected.

2. The demand curve has declined sharply as a result of the coronavirus pandemic and a decline in China's economic growth. The International Energy Agency, in February 2020, had initially forecast 2020 world oil demand growth of 825,000 barrels a day compared to 2019, but in March 2020 it revised its forecast to a *decrease* of 90,000 barrels a day – the first time forecasted demand decreased since 2009.[6] A later report from Rystad Energy in April forecasts oil demand dropping by a staggering 10.3 million barrels per day.[7] This illustrates the sharp downward trend as the market begins to comprehend the effects of the pandemic on the world economy and global consumption.

1 An earlier version of this article, "OPECalypse Now and the World Economy" by J. Michael Issa, was published in the June 2019 issue of ABI Journal, available from https://www.abi.org/abi-journal/opecalypse-now-and-the-world-economy.

2 FRED.stlouisfed.org, retrieved from https://fred.stlouisfed.org/series/DCOILWTICO as of 4/27/2020.

3 Bloomberg.com, retrieved from https://www.bloomberg.com/energy as of 4/27/2020.

4 David Hodari and Joe Wallace, "Oil Prices Skid, With May Contract in Negative Territory," wsj.com, updated April 20, 2020, retrieved from https://www.wsj.com/articles/oil-prices-slump-as-crude-storage-shortage-intensifies-11587382034?mod=article_inline

5 Matt Egan, "Oil Crashes by Most Since 1991 as Saudi Arabia Launches Price War," CNN Business, cnn.com, March 8, 2020, retrieved from https://www.cnn.com/2020/03/08/investing/oil-prices-crash-opec-russia-saudi-arabia/index.html

6 IEA.org, retrieved from https://www.iea.org/news/global-oil-demand-to-decline-in-2020-as-coronavirus-weighs-heavily-on-markets

7 Rystad Energy, COVID-19 Report, 7th Edition: Global Outbreak Overview and its Impact on the Energy Sector, April 22, 2020, 14-15, retrieved from https://www.rystadenergy.com/globalassets/pdfs/rystad-energy_covid-19-report_22-april_2020_openaccess.pdf

3. The precipitous decline in consumption has resulted in storage capacity being filled to capacity. With commercial inventories reaching an all-time high, the market has no ability to absorb additional oil for storage.[8]

These factors have compounded an already existing financial crisis for most OPEC members and certain other oil producing countries. This article will comment on the potential impacts this may have on the world economy.

The US energy industry, in particular the upstream and midstream segments, is now being hammered by the falling demand and excess supplies.

- Given the continuation of the lockdowns from local governments, and the economic aftermath even when business attempts to restart, the probability is high that the conclusion to this market disruption will be neither swift nor particularly satisfactory.
- Although the fall in demand will eventually recover, there will certainly be casualties in the interim.[9]

Most OPEC member nations are presently on a collision course with financial ruin.

- Budget deficits as a percent of their GDPs are clearly unsustainable.
- OPEC cash and investment reserves are being depleted, and sovereign debt is being incurred to delay the day of reckoning.[10]
- The aggregate sovereign debt of OPEC is approaching the level of sub-prime mortgage debt, the default of which rocked the world on its economic axis in 2008.[11]

The current crude futures curve strongly suggests that crude prices will not increase to a level that will allow Saudi Arabia and others to balance their budgets. The current Brent curve does not exceed $50 until 2026.[12] The current price strip also has strong implications for the short and mid-term viability of the US oil and gas industry.

- Many US projects are noneconomical at current prices.
- Most major energy executives now accept that "Peak Demand" is a reality and that this inflection point will be reached within the next decade.[13]
- For a variety of reasons, the sun is beginning to set on crude's domination of the world's energy supplies.

The financial demise of OPEC member nations has the potential to significantly impact and perhaps destabilize the world economy.

Reliance of the World on OPEC Oil and Vice Versa

To analyze the impact of the oil industry on the world economy, one must first review the supply and demand metrics of oil and the role that OPEC plays in this arena. As of 2018, OPEC's oil production accounted *for approximately 41% of the oil production of the world* (Exhibit 1 on next page).[14]

Theoretically, one would assume that OPEC should have the ability to dictate oil prices by thoughtfully controlling the supply. In the past, this has largely been true. OPEC began to lose its grip on domination of the world supply and pricing with the advent of significant technological advances. These advances may have become possible because of OPEC 's market dominance and the impact on developed countries' long-term requirements for crude. This created a huge incentive for the net oil importing countries to discover and develop alternatives. Technological advances made the extraction of shale oil, predominantly in the United

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J. Michael Issa is the California Managing Principal of GlassRatner Advisory & Capital Group, LLC. He is a nationally prominent turnaround expert who has successfully led consulting and professional teams involved in over 100 corporate rehabilitations and he is a well-known authority on oil and gas matters. His clients have included exploration and production companies and service companies. During his career, he has consulted extensively in the area of corporate turnarounds, workouts and bankruptcies. He is a Certified Public Accountant and holds FINRA Series 63, 65, and 79 licenses. He is an award-winning writer and Pulitzer nominee.

8 Ben Cahill, "The Oil Inventory Challenge," Center for Strategic & International Studies (CSIS), csis.org, April 20, 2020, retrieved from https://www.csis.org/analysis/oil-inventory-challenge

9 Matt Egan, "A Wave of Oil Bankruptcies Is on the Way," CNN Business, cnn.com, April 2, 2020, retrieved from https://www.cnn.com/2020/04/02/business/oil-crash-bankruptcies-whiting/index.html

10 "The Mysterious Fall in Saudi Oil Reserves," aljazeera.com, June 27, 2017, retrieved from https://www.aljazeera.com/news/2017/06/mysterious-fall-saudi-foreign-reserves-170627175710850.html

11 OPEC: Organisation of the Petroleum Exporting Countries (chart), https://countryeconomy.com/countries/groups/opec

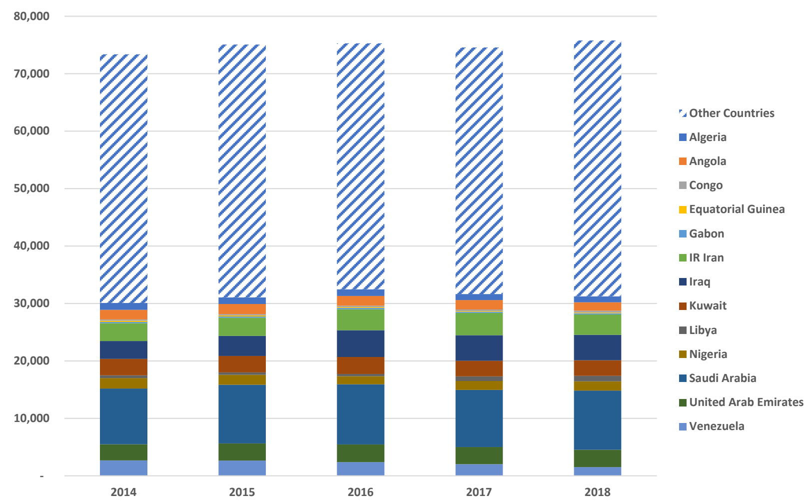
12 Brent Crude Oil Futures (chart), CME Group, cmegroup.com. https://www.cmegroup.com/trading/energy/crude-oil/brent-crude-oil.html as of 4/27/2020.

13 Narijus Adomaitus, "Oil Demand to Peak in Three Years Says Energy Advisor DNV GL," Reuters.com, September 10, 2019, retrieved from https://www.reuters.com/article/us-oil-demand-dnv-gl/oil-demand-to-peak-in-three-years-says-energy-adviser-dnv-gl-idUSKCN1VV2UQ

14 OPEC ASB; note Ecuador was not included as a member of OPEC in 2018.

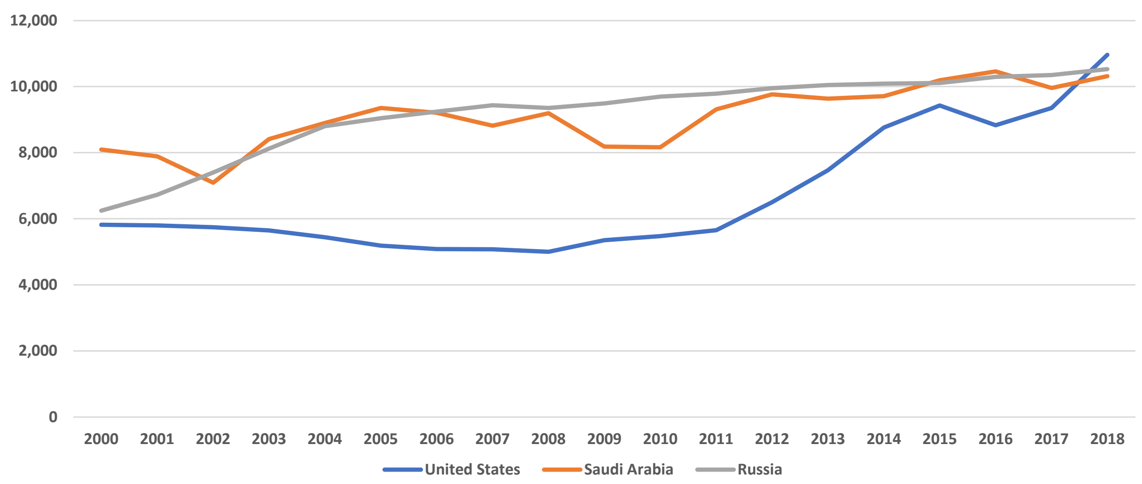
Continued from p.7

Exhibit 1: OPEC Countries Oil Production v. Other Countries, 2014-2018 (1,000 b/d)



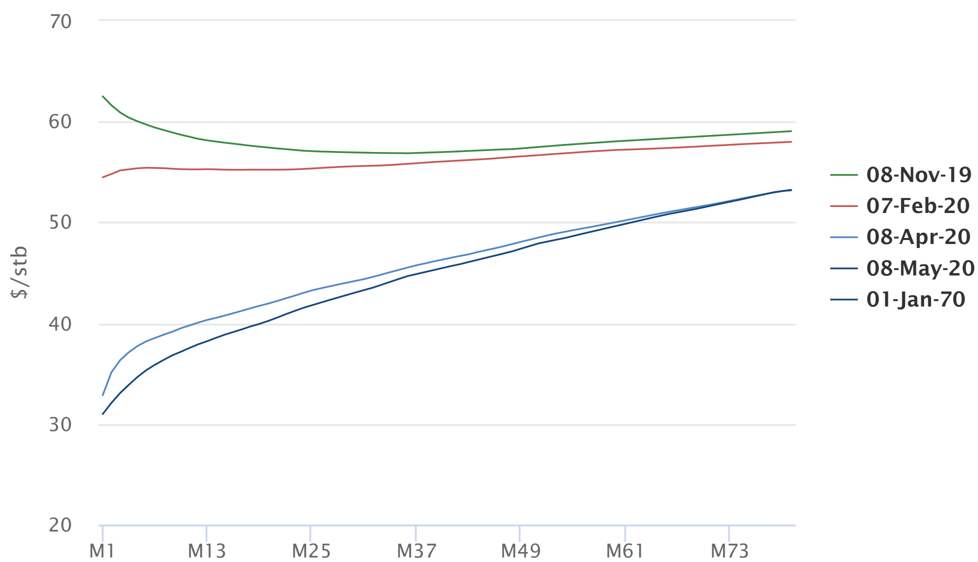
Source: OPEC ASB

Exhibit 2: Crude Oil Production by US, Saudi Arabia and Russia (1,000 b/d)



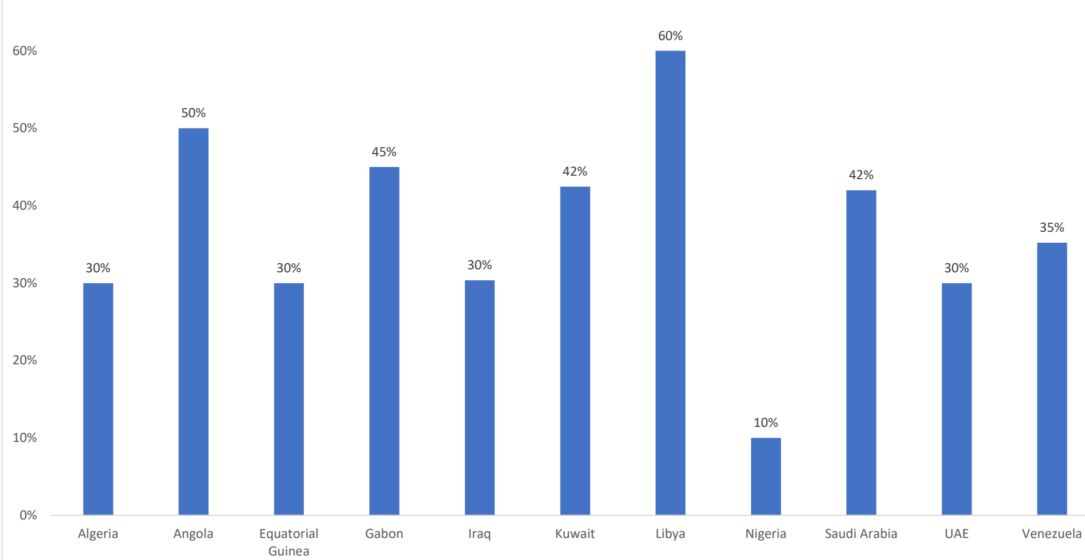
Source: OPEC ASB

Exhibit 3: Brent Futures Curve



Source: Intercontinental Exchange, ERCE Estimates

Exhibit 4: GDP Contributed by Oil Sector



Source: IMF and OPEC

States, economically viable with crude prices in excess of $30.[15]

Given that the world now largely ignores OPEC attempts to firm prices but that prices fall out of bed when there is a disagreement between Saudi Arabia and Russia, it seems clear that OPEC and the other major non-OPEC producers are now a classic dysfunctional oligopoly. They can impact prices adversely to their own detriment but are powerless to manipulate prices in a positive direction.

The fiasco between Saudi Arabia and Russia was derived from a failed negotiation to reduce production in order to firm crude prices. That discussion then devolved to Russia's theory that by crushing prices, US shale production will somehow cease to exist, thereby restoring a monopolistic position to the world's large producers – OPEC, Russia, and a few others. The obvious flaw in that reasoning was that the shale reserves are well-established, relatively cheap to produce, and production can be increased quickly when prices justify an increase. Russia's apparent logic would only have made sense if the non-OPEC producers were the high-cost producers. The US shale firms have shown an impressive ability to lower costs in an extremely competitive environment. One subtle downside of this situation is that it may take several years for OPEC+Russia to realize and accept that they are now no more than a dysfunctional oligopoly, and that they are heading toward a completely competitive global oil market with no cartel power to control or raise prices.

There are several underpinnings for this shift:

- Over the last decade, the United States has doubled its domestic production of crude by exploiting the development of shale oil. Its *increased* production over the last ten years of more than seven million barrels per day[16] is more than the 2018 *total* daily production of Algeria, Angola, Congo, Gabon, Libya, Nigeria, and Venezuela combined.[17] The US shale production can continue to increase in the future as technological advances and economies of scale continue to lower the cost of production.[18] In December 2018, the US became a net exporter of crude for the first time in 75 years.[19] In fact, the United States became the largest producer of crude oil in the world in 2018 with production of 10,962 barrels of oil per day, exceeding Saudi Arabia's 10,317 barrels per day and Russia's 10,527 barrels per day (Exhibit 2).
- Slowing economic growth in developing countries such as China, as well as the pandemic-driven recession, are limiting the demand for oil and refined products.[20] China's economic growth was slowing prior to the start of the pandemic, partly because of trade tensions, as well as a desire for buyers to diversify their supplier base. This diversification strategy will continue to expand after the virus threat subsides.

15 Jennifer Hiller, "Few US Firms Can Withstand Prolonged Oil Price War," Reuters.com, March 15, 2020, retrieved from https://www.reuters.com/article/us-global-oil-shale-costs-analysis/few-u-s-shale-firms-can-withstand-prolonged-oil-price-war-idUSKBN2130HL

16 US Energy Information Administration, retrieved from: https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MCRFPUS2&f=M

17 OPEC ASB 2019.

18 David Blackmon, "Technology and Efficiency Gains Create a New Normal for U.S. Shale," Forbes.com, September 18, 2018, retrieved from: https://www.forbes.com/sites/davidblackmon/2018/09/18/technology-and-efficiency-gains-create-a-new-normal-for-u-s-shale/#7c6b1f9e6591

19 Javier Blas, "The U.S. Just Became a Net Oil Exporter for the First Time in 75 Years," Bloomberg.com, December 12, 2018, retrieved from: https://www.bloomberg.com/news/articles/2018-12-06/u-s-becomes-a-net-oil-exporter-for-the-first-time-in-75-years

20 "Oil drops 1.5% to 13-month low as weak Chinese demand weighs," CNBC.com, February 10, 2020, retrieved from https://www.cnbc.com/2020/02/10/oil-markets-crude-supply-coronavirus-chinese-oil-demand-in-focus.html

Continued from p.9

- It is now well accepted that the world is approaching Peak Demand, after which demand for crude will begin to decline into the foreseeable future.[21]
- Governments around the world are making a concerted effort to promote electric or hybrid vehicles, which will also limit the growth in demand for oil.[22] About 69% of US petroleum consumption in 2018 was for the transportation industry.[23]
- Alternative energy now supplies 11% of the world's energy. This percentage is projected to continue to increase through 2050.[24]
- The US Energy Information Administration's Annual Energy Outlook 2020 projects that US energy consumption will grow more slowly than GDP through 2050, as US energy efficiency continues to increase.[25]

These observations are confirmed by the Brent futures curve where crude prices are projected to gradually increase from current cyclical lows in the mid-$20's but to peak at $50 in 2026 (Exhibit 3 on p.8).

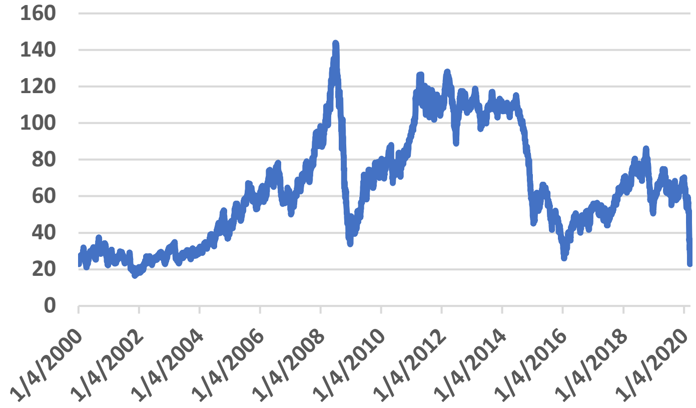
Importance of the Oil Sector to OPEC Members

Despite giving lip service to the goal of diversifying their economies, many OPEC members have actually become more dependent on oil revenues. This is seen by the large percentage of their respective GDPs contributed by their oil sectors (Exhibit 4 on p.9). As one example, the oil segment accounts for 42% of Saudi Arabia's GDP.[26] The obvious conclusion is that these countries' economic well-being is directly and significantly tied to the price of oil, which is now at a level that is potentially destabilizing for most OPEC regimes.

Budget Deficits and Surplus

Beginning in the early 2000s, OPEC enjoyed a decade of unprecedented prosperity as oil surged from around $30 a barrel to $100.[27] (Exhibit 5)

Exhibit 5: Europe Brent Spot Price FOB (Dollars per barrel)



Source: EIA

This price surge allowed many OPEC countries to create large-scale social programs for their citizens. The obvious risk was the assumption that pricing would remain high enough to support those expenditures, a clear falsity for such a volatile commodity (Exhibit 6). Moreover, as history has shown, when prices of such an important item remain extremely high for long periods, people make significant investments in developing cheaper substitutes.

A few OPEC members, notably Saudi Arabia, belatedly realized that an investment in diversifying their economy is the only way out of this long-term economic trap. The obvious question is whether Saudi Arabia has the financial resources, the political and social will, and enough runway to accomplish this repositioning of their economy before disaster strikes. One recent attempt to jump-start the diversification was the IPO of Saudi Arabia's state-owned oil company, Saudi Aramco, whose stock fell by 25% in early 2020.[28]

It was no surprise, when the price of crude collapsed in 2016, that many OPEC countries began to run unsustainable budget deficits. According to the latest reports,[29] all OPEC members are currently running a budget deficit, with three of them running a budget deficit of more than 10% of their GDP (Exhibit 7). Non-OPEC oil producers have also been running deficits, but many are markedly less negative than OPEC members (Exhibit 8). It is interesting to note, Greece was running a budget deficit of 15.4% in 2009 when the financial world considered it a hopelessly insolvent state.[30]

Any budget deficit which significantly exceeds GDP growth rate is unsustainable in the long run. There is little question about the ultimate outcome given oil prices at current levels: the only uncertainty is the actual timing.

21 Adam Vaughn, "Global Demand for Fossil Fuels Will Peak in 2023 Says Thinktank," theguardian.com, September 11, 2018, retrieved from https://www.theguardian.com/business/2018/sep/11/global-energy-demand-fossil-fuels-oil-gas-wind-solar-carbon-tracker

22 Marianne Kah, "Electric Vehicles and Their Impact on Oil Demand: Why Forecasts Differ," Columbia-SIPA, Center for Global Energy Policy, July 2018, retrieved from https://energypolicy.columbia.edu/sites/default/files/pictures/CGEP_Electric%20Vehicles%20and%20Their%20Impact%20on%20Oil%20Demand-Why%20Forecasts%20Differ.pdf

23 "Oil: Crude and Petroleum Products Explained," eia.gov, https://www.eia.gov/energyexplained/oil-and-petroleum-products/use-of-oil.php

24 "Renewable Energy Explained," eia.gov, https://www.eia.gov/energyexplained/renewable-sources/

25 Annual Energy Outlook 2020, January 2020, eia.gov, retrieved from https://www.eia.gov/outlooks/aeo/

26 Photius Coutsoukis, Countries of the World: Saudi Arabia Economy 2020, https://theodora.com/wfbcurrent/saudi_arabia/saudi_arabia_economy.html

27 Europe Brent Spot Price FOB (chart), https://www.eia.gov/dnav/pet/hist/RBRTED.htm

28 Investors Share Price (chart), https://www.saudiaramco.com/en/investors/investors/share-price

29 Country Comparison: Budget Surplus or Deficit, cia.gov, https://www.cia.gov/library/publications/the-world-factbook/fields/226rank.html

30 David Jolly, "2009 Greek Deficit Revised Higher," *The New York Times*, November 15, 2010, retrieved from *http://www.nytimes.com/2010/11/16/business/global/16deficit.html*

Exhibit 6: CBOE Crude Oil ETF Volatility Index

Source: Chicago Board Options Exchange

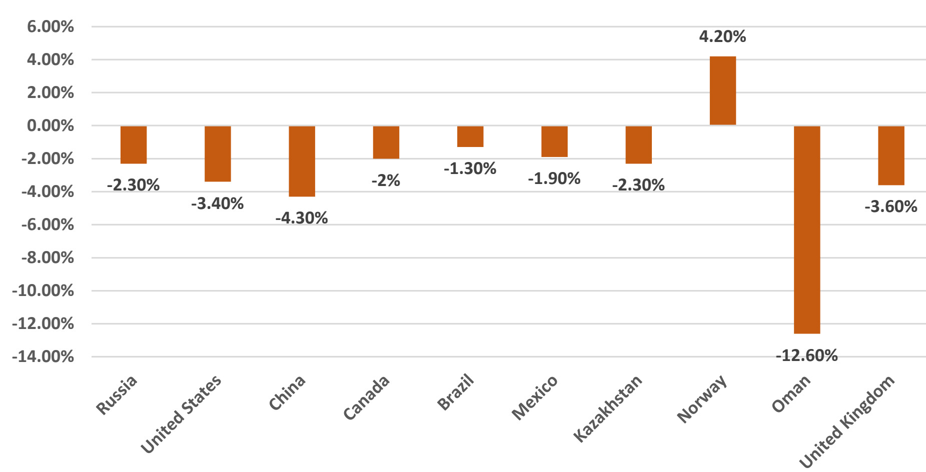
Exhibit 7: Budget Deficits of OPEC Members (2017)

2017 Budget Deficit of OPEC Members			
	"Deficit as % of GDP (Est. 2017) [1]"	"GDP ($B) (2017) [2]"	"Deficit ($B) (2017)"
Algeria	-9.60%	170.40	(16.36)
Angola	-6.70%	124.20	(8.32)
Congo	-0.90%	37.24	(0.34)
Equatorial Guinea	-4.80%	21.09	(1.01)
Gabon	-1.90%	14.62	(0.28)
IR Iran	-2.30%	439.50	(10.11)
Iraq	-4.20%	197.70	(8.30)
Kuwait	-10.00%	120.10	(12.01)
Libya	-25.10%	50.98	(12.80)
Nigeria	-1.80%	375.80	(6.76)
Saudi Arabia	-8.90%	683.80	(60.86)
United Arab Emirates	-0.20%	382.60	(0.77)
Venezuela	-46.10%	143.80	(66.29)

[1] CIA.GOV

[2] World Bank

Exhibit 8: Non-OPEC Countries Budget Deficits as % of GDP (2017)



Source: CIA.GOV

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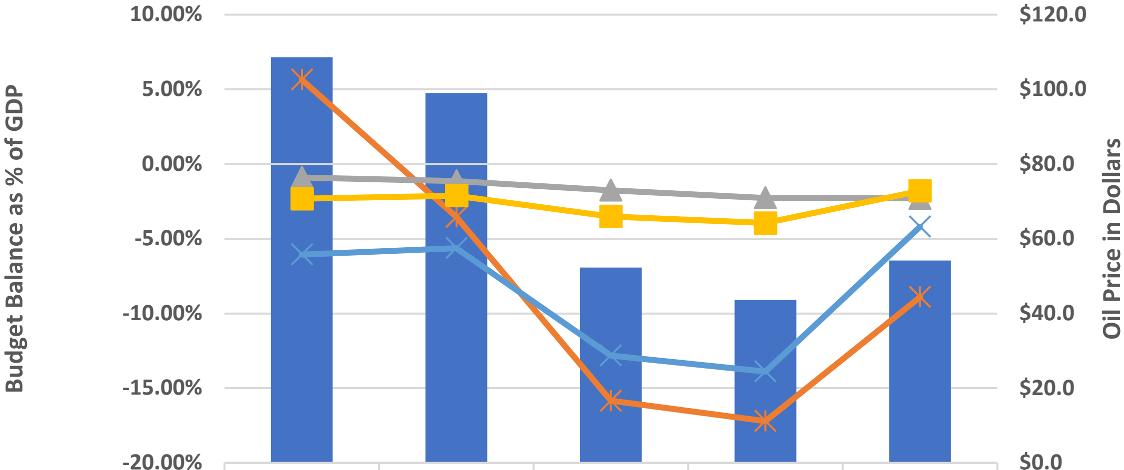
Exhibit 9: Select OPEC Countries Government Budget Balance as % of GDP v. Oil Price (2013-2017)

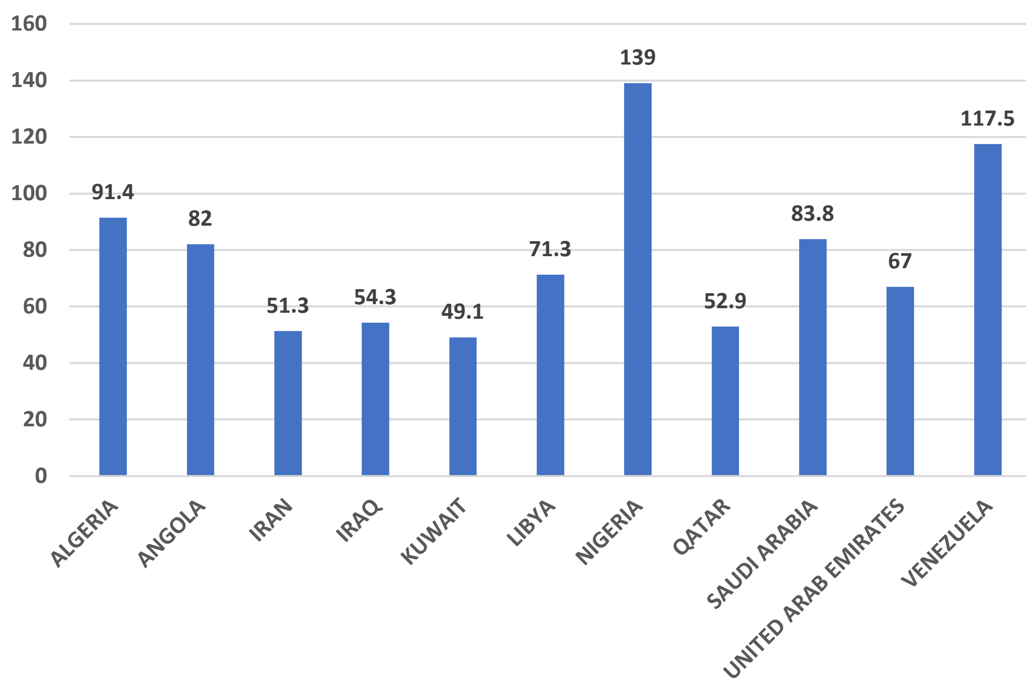


	2013	2014	2015	2016	2017
Brent Oil Price	108.56	98.97	52.32	43.64	54.12
Saudi Arabia	5.64%	-3.54%	-15.84%	-17.20%	-8.90%
Iran	-0.90%	-1.14%	-1.76%	-2.27%	-2.30%
Nigeria	-2.33%	-2.12%	-3.51%	-3.95%	-1.80%
Iraq	-6.06%	-5.63%	-12.82%	-13.89%	-4.20%

Brent Oil Price Saudi Arabia Iran Nigeria Iraq

Source: Country Economy | CIA.GOV

Exhibit 10: Breakeven Oil Price (2017)



Source: Fitch, Highmark Capital, IWF, WSJ

In 2013, the average Brent oil price was $108.5. When it declined to $52.32 in 2015 and to $43.64 in 2016, the budget balances of the major OPEC countries followed a similar pattern. Saudi Arabia had a *budget surplus* in 2013 that totaled 5.64% of its GDP; in 2017, the budget balance was a *negative* 9% of GDP. This further demonstrates the extent to which these OPEC countries are heavily dependent on oil as a source of government revenue. It also highlights the magnitude of the problem posed by low oil prices for these countries' economies and stability.

Assuming no major changes in OPEC government expenditures, we calculated each country's minimum oil price required to achieve a balanced budget (Exhibit 9). For countries like Kuwait and Qatar, which have traditionally diversified their economies through investment funds, the breakeven point is now approximately $50/barrel (Exhibit 10). For Saudi Arabia, the breakeven point now exceeds $80/barrel. As the largest economy in the Middle East, the precarious position of Saudi's financial future is a real concern, given that the crude futures curve suggests the price of oil will average $40-50/barrel over the next five years.

Certain OPEC members are beginning to realize the magnitude and inevitability of the problem. They have begun to implement stricter fiscal policy, with a goal of balancing the budget even with lower oil revenue. This, however, could lead to social unrest. It will also create challenges in non-oil sectors, such as discretionary consumer goods that rely on a strong middle class.

Even before these countries attempt to shrink their social programs, some will have to deal with a substantial youth unemployment rate. Saudi Arabia currently has an unemployment rate of 30% among youths between the ages of 15-24. This is extremely problematic for a country where half the current population is composed of youths under the age of 25.[31] Austerity measures will likely mean an even higher unemployment rate among this age group. Currently, *70% of working people in Saudi Arabia are employed in the public sector*.[32] A disruption of this entitlement will create dissent among the working class of Saudi Arabia and create political instability that will pose a significant challenge to the country and to its royal family.[33]

31 Vivian Nereim, "Saudi Arabia's Vision for the Future Looks Dim to Jobless Youth," bloomberg.com, November 22, 2016, available from: https://www.bloomberg.com/news/articles/2016-11-22/saudi-arabia-s-vision-for-the-future-looks-dim-to-jobless-youth

32 Suparna Dutt D'Cunha, "Plagued by a 30% Unemployment Rate, Arabian Youth Turn to Startups for a Lifeline," *Forbes*, May 11, 2017, forbes.com. Retrieved from https://www.forbes.com/sites/suparnadutt/2017/05/11/can-startups-drive-new-job-growth-in-the-mena-region-where-youth-unemployment-rate-is-30/#306434e034f4

33 Vivian Nereim, "Saudi Arabia's Vision for the Future Looks Dim to Jobless Youth," https://www.bloomberg.com/news/articles/2016-11-22/saudi-arabia-s-vision-for-the-future-looks-dim-to-jobless-youth

Impact of an OPEC Collapse on Debt and Export

The current trajectory of OPEC member countries' financial situation has the potential to significantly impact world financial markets. As OPEC countries run low on foreign reserves, they are borrowing more money internationally, apparently in the hope of an oil price rebound that will allow them to balance their budgets. The futures price curve suggests that this borrowing is merely a stay of execution and will add to the already large amounts of sovereign debt that governments and organizations of these countries have borrowed over the past several years.[34] OPEC governments and organizations currently owe approximately USD 1.2 trillion,[35] or about the same amount that was owed by the subprime mortgage borrowers in 2007 (Exhibit 11, p.14).[36]

The impact of a default by a significant OPEC issuer has the potential to trigger a panic among investors that could be as momentous as the subprime crisis. This is likely, given that there were already signs of a decline in the growth rate of the industrialized nations prior to the pandemic-driven recession, a clear mid-term bear signal for crude prices.

Despite this disconcerting outlook, a number of OPEC members still enjoy favorable bond ratings with the three major rating agencies. Saudi Arabia is currently rated A, A1, and A- from Fitch, Moody's, and S&P respectively.[37] While the rating agencies may be as wrong on this topic as they were on the risk of subprime senior MBS tranches, the high ratings provide both the ability and the incentive for Saudi Arabia to borrow on the international market as its budget deficit balloons.

One justification for the continued high credit rating given by Moody's, despite the red flags suggested by the economic data, is Moody's assessment that Saudi Arabia has the capacity to carry more debt. This argument is both circular and unpersuasive for the following reasons:

1. Countries and companies are increasingly turning to alternative energy sources, especially for a traditional oil importing country like China.[38] Peak demand for crude

34 Elena Holodny, "Saudi Arabia's National Debt Has Exploded Since the Oil Crash," *Business Insider*, December 22, 2016, retrieved from https://www.businessinsider.com/saudi-arabia-national-debt-budget-2017-report-2016-12. And CIA, cia.com.

35 OPEC Organisation of the Petroleum Exporting Countries (chart), as of April 2020, retrieved from https://countryeconomy.com/countries/groups/opec

36 Joseph Krmpotich, *The Subprime Mortgage Collapse* (thesis), University of North Carolina (2012), available from http://www.stat.unc.edu/faculty/cji/fys/2012/Subprime%20mortgage%20crisis.pdf

37 Saudi Arabia Credit Rating (Moody's, S&P and Fitch tables), https://countryeconomy.com/ratings/saudi-arabia

38 Dominic Dudley, "China Is Set To Become The World's Renewable Energy Superpower, According To New Report," *Forbes,* January 11, 2019, retrieved from https://www.forbes.com/sites/dominicdudley/2019/01/11/china-renewable-energy-superpower/#109d44f5745a

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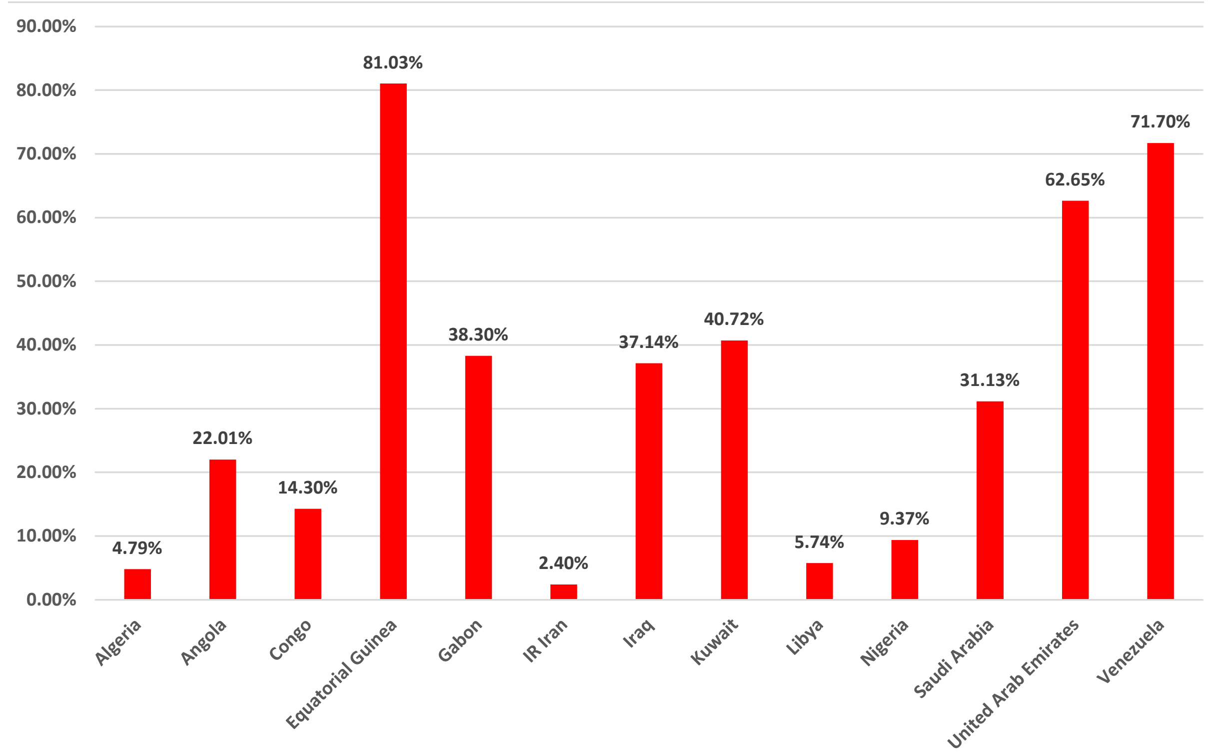
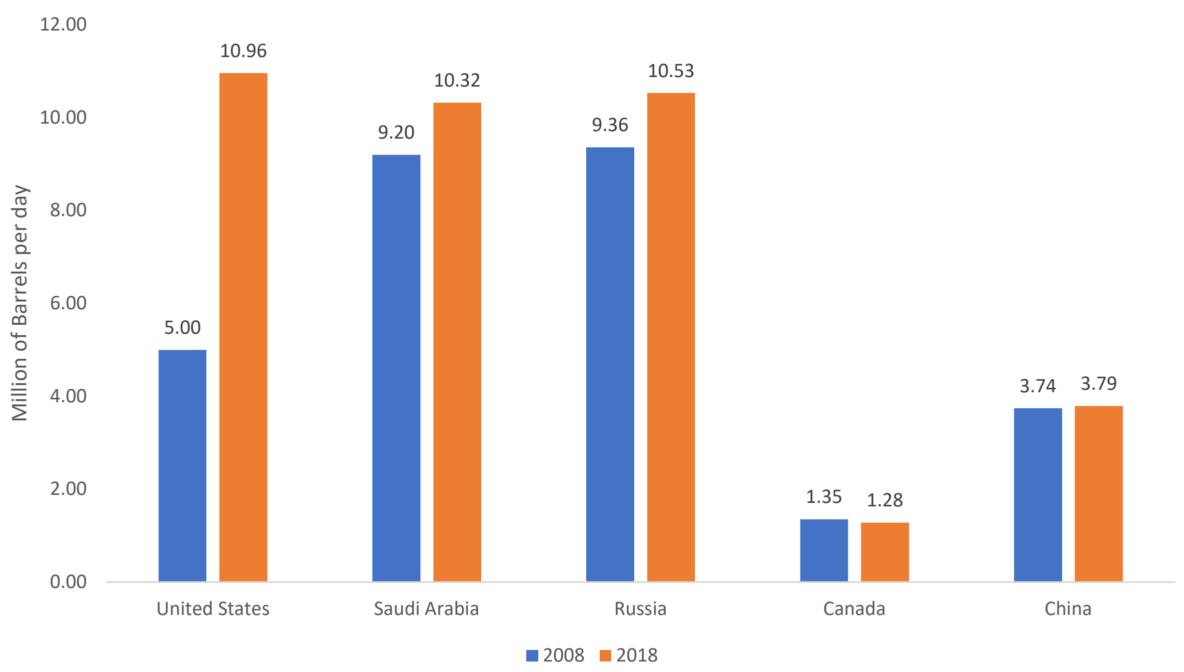
Exhibit 11: External Debt of OPEC Members as % of GDP (as of 2017)



Source: CIA.GOV | World Bank

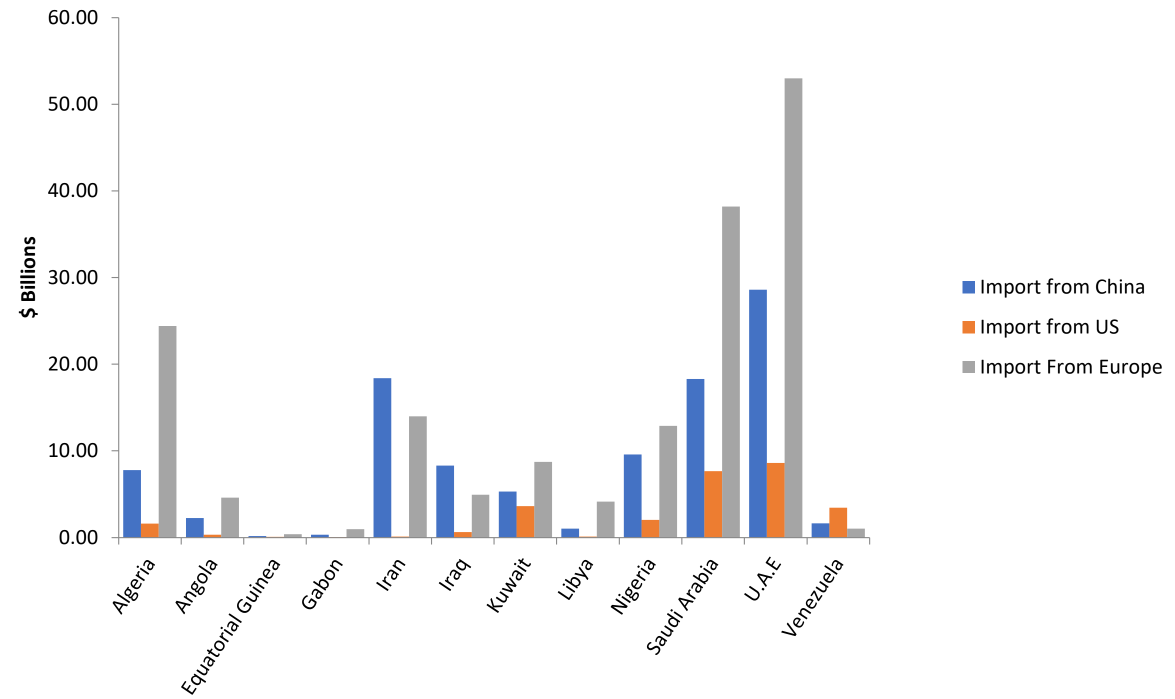
Exhibit 12: Oil Production of Select Countries, 2008 v. 2018



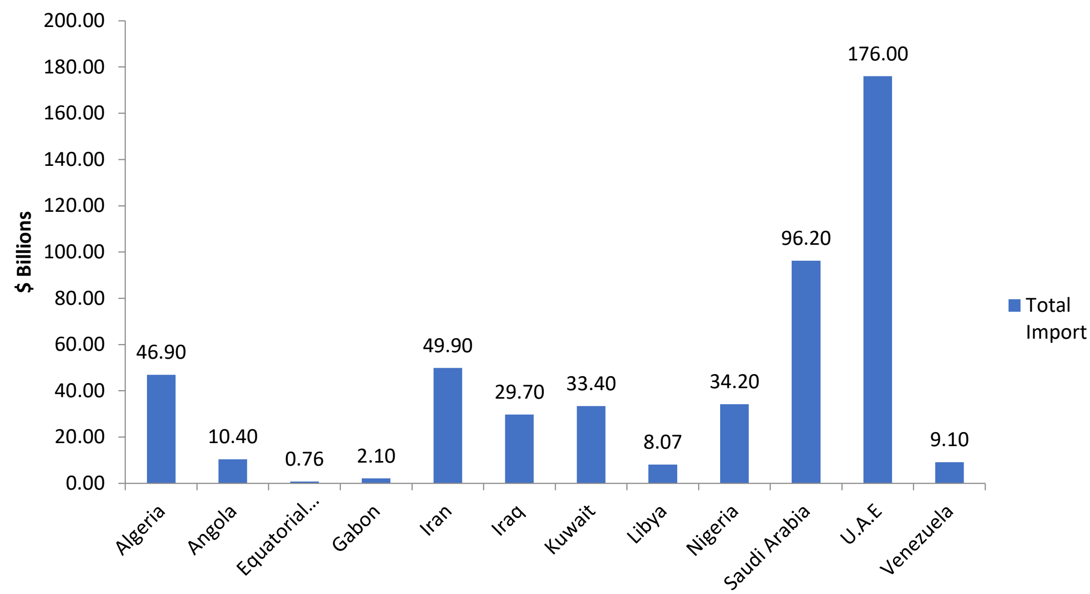
Source: OPEC ASB

Exhibit 13: OPEC Members' Imports

Part A — Members' Import Values with Major Countries



Part B — Total Imports by OPEC Members in 2017



Source: The Observatory of Economic Complexity.

Continued from p.15

has now become an accepted working assumption in the industry.[39]

2. It has been clearly demonstrated that as prices move up, additional production capacity can be brought on quickly. The US alone added more than seven million barrels per day to world crude production in only ten years (Exhibit 12, p14). The futures curve strongly suggests that the consensus view of the world's crude traders is that prices in the $40s are the new normal for crude pricing. For OPEC members such as Saudi Arabia, whose budget breakeven price is $83 a barrel, borrowing more sovereign debt may be simply extending the timing of inevitable default.

Globalization has connected the world's economies to each other. Instability in one region can now cause financial distress for the entire world. Recall the financial panic over the potential bond default of Greece in 2010 and note that Greece's sovereign debt was only one-third that of the current total OPEC member nations' debt.[40]

Regarding OPEC imports, we note the following[41](Exhibit 13, p.15):

- The total value of all imports for OPEC members was $496 billion in 2017. This represents 3% of the world's import total ($16 trillion).
- The total value of imports by OPEC from China is $101 billion.
- The total value of imports by OPEC from the US is $28 billion.
- The total value of imports by OPEC from the EU is $167 billion.

A collapse of OPEC would shrink revenues for companies that export goods to OPEC countries. For example, research by Ledbury found that Saudi Arabia, Qatar and Kuwait are all significant purchasers of foreign luxury goods.[42]

Clearly the Saudi-Russia price war has shifted the entire crude futures curve down sharply. Banks that have significant amounts of oil sector loans are likely to retrench in all their lending as they deal with regulatory capital requirements and enhanced OCC examiner oversight. US regulators have already "redlined" Exploration & Production (E&P) loans.

Saudi Arabia and other OPEC producers will need revenues to fund their deficits and the path of least resistance for them is to overproduce, compounding the supply-demand imbalance. We expect that this will result in continued pressure on crude prices. This has already significantly impacted other companies in the energy sector around the world.

United States Collateral Damage

In the US, the market cap of energy companies is 5.5% of the total market cap of the S&P 500[43] and the total employment in the US fuel industry is in excess of 1.1 million.[44]

Ironically, the US E&P industry is now the victim of its own success. The US differs from the OPEC countries in that the oil production segment is not controlled by the government. Instead, the shale extraction companies face stiff competition in a very capitalistic economy. The current Russian strategy is almost certainly a misguided attempt to crush the US shale competitors. Although many shale operators will struggle and some will not survive, the shale reserves will still exist and can be brought to market as pricing dictates. The US shale operators have one of the lowest marginal costs of production in the world and will always have a competitive advantage over many other world producers such as Canada and the North Sea.

Impact of Price War on US Producers

Over the next four years approximately $200 billion of the oil and gas industry's debt is maturing in the US alone.[45] Low oil prices have forced companies in this industry to cut capital spending and preserve cash for debt repayment. Large oil and gas companies like BP, Shell, and Total have already slashed 20% of their capex budgets for 2020; Aramco has proposed a budget cut of 25%-29% in 2020.[46] Shareholder dividends will also be adversely impacted.

Between 2015 and 2019, 208 US producers filed bankruptcy.[47] Their debt at the time of filing totaled $121 billion.[48] In addition, 224 midstream players and service companies also filed during that period.[49] The fallout is even greater when one considers that hundreds of companies engaged in out-of-court workouts or simply closed their doors and their numbers are not included in these totals.

39 Uwe Hessler, "When Will 'Peak Oil' Hit Global Energy Markets?" dw.com, November 25, 2019, retrieved from https://www.dw.com/en/when-will-peak-oil-hit-global-energy-markets/a-51367939

40 Kimber Amadeo, "Greek Debt Crisis Explained," thebalance.com, December 14, 2019, retrieved from https://www.thebalance.com/what-is-the-greece-debt-crisis-3305525

41 The World Bank, Trade Data, http://data.worldbank.org/topic/trade

42 Madelaine Olliver, "Hey Big Spender," Knight Frank Wealth Report, retrieved from https://content.knightfrank.com/resources/knightfrank.com/wealthreport2015/wealthpdf/07-wealth-report-luxury-spending-big-spender.pdf

43 Yardeni Research, Inc., https://www.yardeni.com/pub/spxshares.pdf

44 The 2019 Energy and Employment Report, https://www.usenergyjobs.org/2019.report

45 Adam Aziz, New OPEC Agreement May Take Longer to Form, says Analyst," March 10, 2020, retrieved from https://www.theedgemarkets.com/article/new-opec-agreement-may-take-longer-form-says-analyst

46 Robert Perkins, "Equinor halts US shale activity, cuts spending in response to oil price slump," EMEA oil, gas company spending reactions to price rout (chart), March 20, 2020, retrieved from https://www.spglobal.com/platts/en/market-insights/latest-news/natural-gas/032520-equinor-halts-us-shale-activity-cuts-spending-in-response-to-oil-price-slump

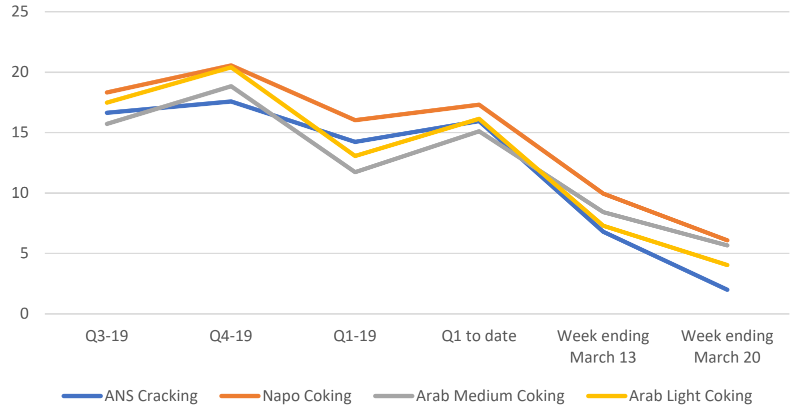
47 Haynes and Boone LLP, Oil Patch Bankruptcy Monitor, January 17, 2020.

48 Ibid.

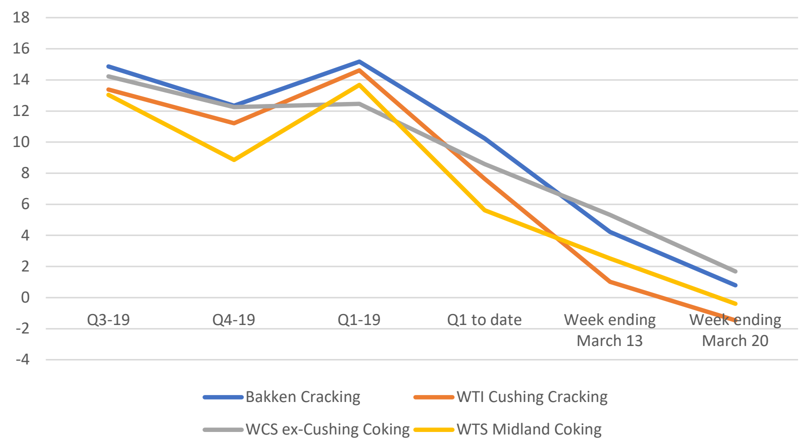
49 Ibid.; and Haynes and Boone, LLP, Midstream Report, January 17, 2020.

Exhibit 14: US Refining Margins

Part A — US West Coast Refining Margin Averages ($/b)



Part B — US West Coast Refining Margin Averages ($/b)

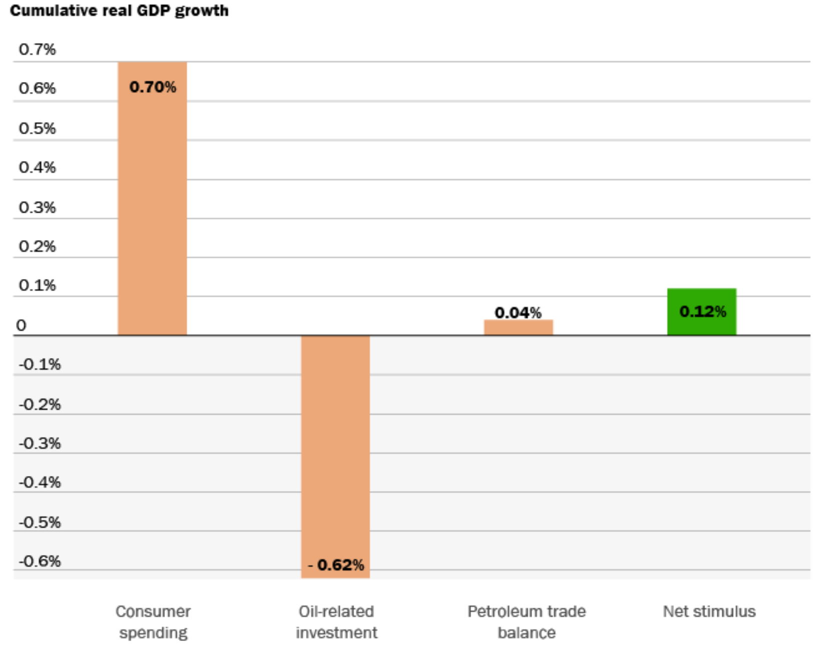


Source: S&P Global Platts Analytics

Exhibit 15: Net Effect of Oil Price Decline

Overall stimulus from lower oil prices has been near zero

Cheaper gas increased consumer spending, but investment in the oil sector fell.
The net stimulus for real GDP is near zero.



Source: "Lower oil prices and the U.S. economy : Is this time different?" by Christine Baumeister and Lutz Kilian , Brookings Papers on Economic Activity Fall 2016

Continued from p.17

Smaller and mid-size E&P companies experiencing distress from low crude prices may not survive simply by downsizing and cutting dividends; however, they are likely to attempt to liquidate assets at an accelerated rate. This will put continued pressure on asset values in the segment.

Crude oil market volatility (OVX) was at 325.15 on April 21, 2020, an all-time high since the inception of the index in 2007.[50] In the preceding month, declines of 25% on March 9 and 24% on March 18 were "the two largest percentage declines in the WTI futures price since at least 1999."[51] This combination of low prices and high volatility makes it impossible for energy companies to intelligently plan or make capital expenditures, in the absence of compelling economics or any reasonable certainty as to the timing and magnitude of a future recovery.

In these circumstances, many assets have or will become unsalable. As just one example, drilling for development of reserves is now largely non-economic, which leads to rigs being stacked. As in previous industry downturns, this supply-demand imbalance arises when there are few-to-no buyers for those rigs at any price in excess of scrap value. Lenders will be reluctant to foreclose. Loans to the service companies will certainly be on non-accrual and heavily reserved by the banks. Service companies will lay off most of their employees, both field and corporate, and hunker down in an attempt to survive.

Canadian producers will be hit even harder by the declining oil price. This is because Canadian oil operations are mostly made up of oil sands projects. Technology advances like upgraders and steam-assisted gravity drainage (SAGD) have dramatically reduced the breakeven price to the mid-$40s. However, there are still fields without those facilities which require an oil price of around $65 to break even.[52]

Impact of Price War on US Midstream

US Refining Margins have declined sharply in Q1, 2020, perhaps to non-economic levels, as demand has fallen (Exhibit 14 on p.17).

Pipeline economics are a combination of fee-based and profit margin arbitrage from buying the raw commodity and separating the fractions which are then sold for a higher value (aka, crack spread). The collapse of crude pricing and decline in demand will conclusively result in a lower throughput in 2020-2021. The arbitrage play is now a high-risk undertaking as a result of the unprecedented spike in crude volatility and uncertain levels of demand for refined products.

Misconception About Lower Oil Prices – No Silver Lining

Some experts projected that the oil price decrease, prior to the pandemic, would be a positive for the US economy. The rationale was that lower gas prices will put money in consumers' hands and increase consumer spending. However, research shows that the net effect of the oil price decline through 2019 contributed approximately 0% to the growth of GDP.[53] The increase in consumer spending from lower prices has been offset by a decrease in oil-related investments (Exhibit 15 on p.17).

Non-OPEC

While low oil prices have some impact on major non-OPEC oil producing countries, including Russia, the United States and Canada, the fiscal policies of these countries are more responsible and their economies are much more diversified. Oil exports only contribute a relatively small percentage to the GDPs of these countries (Exhibit 16).

The modest budget deficits of these large non-OPEC oil producing countries demonstrates that they are better able to deal with low oil prices compared to OPEC member nations (Exhibit 17). Russia, although heavily dependent on oil and under western sanctions, experienced a budget surplus of 1.8% of GDP in 2019.[54]

The EU, which is made up of a bloc of mostly oil-importing countries, may benefit in the short-term from lower oil prices. However, EU policies tend toward greater environmental controls and the lower prices may occur as regulations force lower consumption, limiting the extent of the windfall. However, in the long run, low energy prices for the EU may slow down the EU's effort to boost inflation in the hope of stimulating economic growth.[55]

Conclusions

Continued low oil prices have the potential to cause OPEC countries to default with a possibility of significant collateral damage to the world's economy. This scenario appears reasonably likely, as evidenced by the continued growth in OPEC countries' total external debts. An OPEC downfall would certainly reduce their imports of foreign goods.

50 CBOE Crude Oil Volatility Index, https://finance.yahoo.com/quote/%5EOVX/

51 Oil Market Volatility Is at an All Time High (chart), March 27, 2020, https://www.eia.gov/todayinenergy/detail.php?id=43275

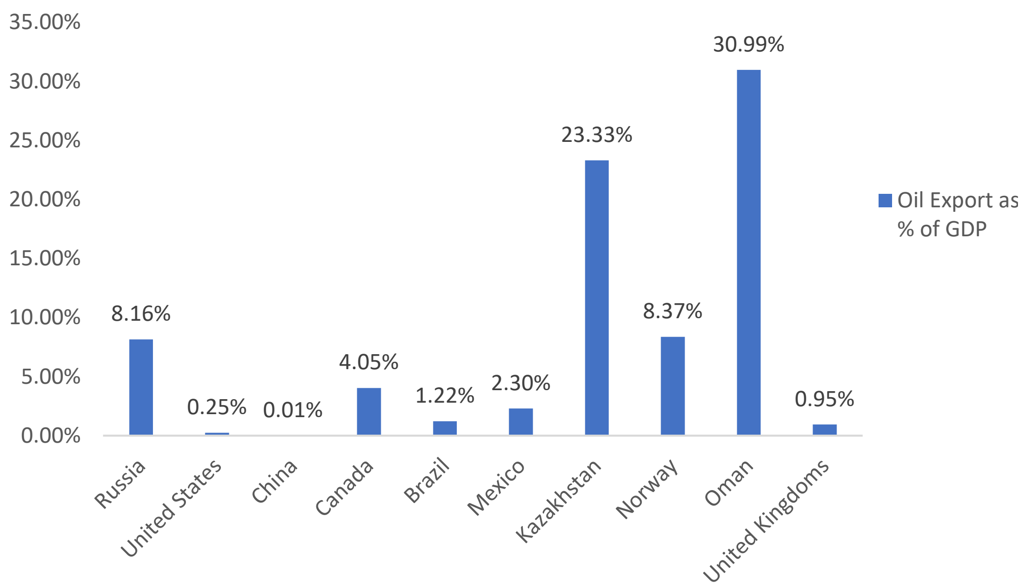
52 Costs of Canadian Oil Sands Projects Fell Dramatically in Recent Years," Bloomberg.com, May 1, 2019, https://www.bloomberg.com/press-releases/2019-05-01/costs-of-canadian-oil-sands-projects-fell-dramatically-in-recent-years-but-pipeline-constraints-and-other-factors-will-moderate

53 Christiane Baumeister and Lutz Kilian, "Lower Oil Prices and the US Economy: Is This Time Different?" Brookings paper on economic activity, Fall 2016, retrieved from https://www.brookings.edu/bpea-articles/lower-oil-prices-and-the-u-s-economy-is-this-time-different/

54 Russia Government Budget (chart), https://tradingeconomics.com/russia/government-budget

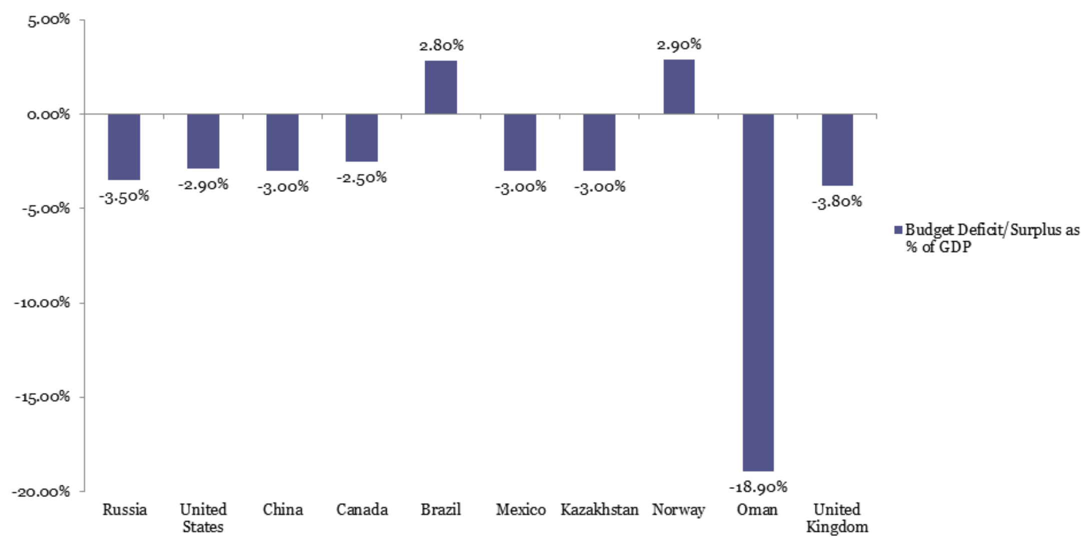
55 "Who Wins and Who Loses in a World of Cheap Oil," Stratfor Worldview, January 8, 2016, https://worldview.stratfor.com/article/who-wins-and-who-loses-world-cheap-oil.

Exhibit 16: GDP Attributed to Oil Export by Non-OPEC Countries



Source: World's Top Exports, IMF

Exhibit 17: Non-OPEC Countries Budget Deficit/Surplus



Source: CIA

Oil prices may never rebound to a point where OPEC countries can balance their budgets and remain solvent. Large US shale operations have become more efficient by reducing costs and will be able to weather the storm and continue production.

Most OPEC countries need to implement more responsible fiscal budgets and diversify their economies. It is probable that a number of these countries will run out of time and money and fail to overhaul their economies into sustainable configurations.

The current price decline is causing, and will continue to cause, significant carnage in the US oil and gas industry. As the segment collapses, bankruptcy filings have soared, and oil and gas industry employment will decline.

The energy industry and the world should be concerned by the fragility of the OPEC "consensus" and the resulting periodic damage to prices and the global economy as OPEC members are unable to reach and maintain a consensus regarding production cuts and allocations.

A time bomb of considerable proportion is ticking with no obvious solution. The impact of this problem has every likelihood of causing considerable impact to the world economy and developed nations in the near-to-mid-term.

INSURANCE ISSUES AND RECOVERIES RELATED TO COVID-19

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RSM US LLP

COVID-19, a strain of the coronavirus family discovered in 2019 and commonly referred to as the "coronavirus," is wreaking havoc on global travel, trade, and economies as governments across the world employ a range of measures to stem the spread of the virus. As we write this article, 2020 stock market values have plunged, employees are working from home, and critical supply chains for healthcare and basic necessities are being realigned and tested. Health care workers on the front lines are managing a surge in their case loads, and many countries, states, and local governments are overwhelmed by the demand for hospital services. There is little doubt that the current environment will have a significant economic impact on individuals, companies, and entire industries.

This article surveys some of the insurance policy provisions and coverages that may be relevant to the current pandemic and the related challenges involved. The article also addresses some notable subjects in corporate litigation that frequently implicate insurance coverages, which may be relevant to the COVID-19 situation.

Coverage Analysis

As companies assess their potential losses, they may seek to identify possible sources of recovery from claims against their insurance carriers, or they may contemplate bringing damage claims against others whose insurance policy provisions may be triggered. Insurers are likely bracing for a potential avalanche of claims by policyholders who are searching for financial remedies to stem some portion of their financial losses from this global pandemic.

Government support, via tax incentives, stimulus programs, direct loans to businesses, unemployment and other governmental programs, will help; but many businesses may look to their insurance policies for additional relief. It is likely that questions about coverages and exclusions across policy lines will arise between insurers and insureds, with the possibility that certain coverage determinations, policy provisions and/or exclusions may be subject to litigation.

We observe that the types of analyses undertaken frequently require the participation of both financial and legal professionals with experience in the insurance industry. The range of issues often encompasses both financial and legal interpretation of policy terms, the individual circumstances of each situation, and the professional guidance provided by insurance companies and insurance regulators.

Based on our experience, insurance policies and their provisions will vary, and readers should consult their attorneys and financial advisors for guidance on coverages, claims filing procedures, support for claims, and strategies to deal with the many questions

likely to arise about these contracts. Furthermore, the professional guidance issued by insurance companies and regulators should also be consulted, as these interpretations may affect the scope of coverages and/or exclusions. Government responses to the current pandemic may result in new law that redefines key policy provisions, such as altering definitions of property damage or potentially eliminating exclusions for infectious diseases, and possibly lengthening the filing periods for claims.

Many, or all, of these issues may necessitate careful consideration, evaluation, document compilation and investigation, financial analysis, and possible outside representation to determine the nature of recoveries for insureds and the extent of each party's (insurers and insureds) respective obligations under these policies.

The following sections offer examples of issues, coverages, challenges and concerns for insurers or insureds based on the authors' experiences. Note, these are not intended to be comprehensive, as specific insurance policies, contracts and claims will require individual assessment. We do not offer any legal opinions, but simply provide our business perspectives and observations on these issues.

Insurance Policies That May Be Affected

Property Coverages

Commercial property insurance policies generally respond to direct physical loss or damage to covered property. However, the language in these policies has evolved over several hundred years, and the terms are not always defined in the policy. For example, definitions of what constitutes direct physical loss or damage can and do vary, while definitions of excluded events and other policy terms also vary widely. For example, many policies exclude contamination, pollution, or contagious diseases. And while some policies may extend coverage for contagious diseases, they may have very low sub limits and/or restrictive terms. Furthermore, property coverage can also hinge on interpreting when a loss of use is covered as insured physical damage.

Since policy language can be interpreted differently by policyholders, insurers, and the courts in a variety of contexts, coverage gaps may exist for the risks associated with the impact of a microbe or virus that does not, in and of itself, physically damage the property. The spread of a communicable disease that does not directly affect the physical property may not be eligible for coverage. A communicable disease/virus is often specifically excluded from standard policies, and even if not specifically excluded, a communicable disease/virus may not be deemed to cause physical damage.

Consider some examples: Does the presence of a virus like COVID-19 that can survive on surfaces for long periods of time directly affect the property? And, can the insured prove the presence of the virus on their property? Is the property considered contaminated, is the functionality affected, is it uninhabitable or unsafe, and can the situation be rectified/remediated? Who has control over the property, and when did the event first arise? What are the financial consequences of alleged damage and how can they be measured? Many questions will need to be considered and require resolution.

Business Interruption

Business interruption insurance covers a policyholder's losses if they are shut down or closed due to covered property damage. Contingent business interruption covers losses from the shutdown or closure of a policyholder's supplier or customer (note, some contingent business interruption policies extend coverage to indirect suppliers or customers). Both types typically require proof of a direct physical loss to the property: (1) for business interruption the physical loss must impact the insured's property, (2) for contingent business interruption the physical loss must impact the supplier's property.

Closure of a facility due to a voluntary decision or a mandatory governmental order that does not directly relate to the physical condition of the facility may be excluded. However, contamination of a facility with a long-surviving virus like COVID-19 may still be eligible (or the exclusion may be challenged in the courts), depending on the facts and circumstances of the contamination, the extent, the impact, remediation efforts, and other factors. Further, the timing of a voluntary decision for closure, or a voluntary closure that precedes a mandatory governmental order, may also affect the policy interpretation of a triggering event.

Since insurers and insureds are likely to challenge one another on the applicability of policy provisions and/or exclusions, detailed financial and legal analysis will likely be necessary to reach a conclusion on claims determination. For instance, regardless of the coverage aspects, a claim for business interruption will likely require extensive financial analyses to support the actual impact from decreases in business income stemming from voluntary consumer reactions versus government mandated actions. For example, even if coverage was acknowledged due to Civil Authority actions (e.g., orders to close businesses or orders for consumers to shelter in place that may result in reductions to commercial and/or consumer activity) which might be covered, the impact due to Civil Authority actions may need to be separated from the impact that stemmed from the voluntary actions taken in response to consumers who were already practicing social distancing measures prior to the government mandates.

Continued from p.21

General Liability

General liability policies are often structured into Coverage-A and Coverage-B risks. Coverage-A typically includes negligence resulting in bodily injury when an accidental occurrence takes place. Coverage-B typically includes personal injury offenses stemming from false detention and imprisonment. Both of these coverages are limited by standard and non-standard exclusions that may include exclusions for exposure to contaminants or pollutants.

For example, people held on a luxury cruise ship who were exposed to COVID-19 may or may not have valid claims for personal injuries depending on the reasons/causes for their detention and/or illness that may have occurred during their detention, and whether those reasons include an accidental occurrence, constitute false detention, result from gross negligence, or stem from an excluded item. Each of those issues will require careful documentation and validation typically involving financial, forensic, economic, legal and other investigation procedures.

Worker's Compensation

Employees who may have contracted COVID-19 on the job may be a source of many insurance claims, particularly for healthcare workers or other high-risk, direct-contact employees such as police, fire or emergency medical response professionals who deal with infected individuals. However, other professions may also experience elevated and significant exposure to infected individuals, such as entertainment (sports), leisure (casinos), transportation (airlines), retail (grocery/food), and even manufacturing (production) or distribution (shipping/delivery).

The central issue is the direct link between the worker and the exposure, or the work-relatedness, of the claim. Exposure to infected environments and individuals may be easier to prove for healthcare workers, but claims for other types of employees in various industries and facilities cannot be ruled out. For example, how should employers deal with employees at work, at home, in hiring, and those with disabilities, facing discrimination, or other factors? Will employers face liability risk for employees who infect others? How are travel bans determined and managed? Were regulatory requirements met, maintained, and adhered to during the pandemic? Were health and welfare plans compliant with federal, state, and local requirements during the pandemic? Were federal, state, and local requirements issued in response to the pandemic adhered to?

Each claim will require its own evaluation of its unique facts and circumstances, compilation of employee data, medical and other records, and analysis of the alleged financial damages and mitigation.

Event Cancellation

Event cancellation insurance policies are specialized contracts which are separate from general property and casualty policy lines and policy packages. Event cancellation policies are designed to cover a legal or physical cause for the cancellation of a specific event. As such, the definitions of covered events should be carefully evaluated.

Voluntary decisions to cancel events are typically excluded, and many of these policies may exclude the impact of communicable disease, either generally or for specific illnesses, or a pathological agent. Policy triggers may require an official ban or governmental order to be in place that prohibits gatherings of people in one place, which may or may not create a covered event when other exclusions such as a virus or disease exclusion are taken into account. Further, organizers are generally expected to mitigate, or attempt to reschedule, their events.

It is likely that a cancellation of an event will require detailed financial analysis due to the complex revenue and expense streams tied to a variety of entities associated with the event. For instance, ticket sales need to be evaluated regarding any obligations or restrictions on refunds, vendor obligations and royalties and advertising costs (or revenues), etc., will need to be analyzed.

Director and Officer Liability

Directors and officers (D&O) liability insurance coverages can protect individuals from personal losses that may stem from serving as a director or an officer of a business or other type of organization (Side A coverage). It can also help to cover the expense of legal fees and other costs the organization may incur as a result of a D&O related lawsuit (Side B coverage). Corporate coverage may also apply if the corporation is sued along with the directors and officers (Side C coverage).

Board members and corporate officers may face increased risks and significant liability uncertainties for their handling of the business and their board actions during the COVID-19 pandemic. Issues center upon the interpretation of individual and board duties to the various stakeholders in the business. In one example of risk management, hundreds of public companies updated their public filings with the Securities and Exchange Commission regarding risk disclosures during February and March 2020. Public company auditors have also recognized the impact of COVID-19 on financial disclosures and audit quality; including, for example, auditor access to information and company personnel and the ability to timely file audit opinions. Disclosures of COVID-19 related subsequent events and business risk began formally recognizing the business threats stemming from the spread of COVID-19.

Note that the SEC, Internal Revenue Service and other government agencies, as well as other issuers of professional practice guidelines (e.g., accounting guidance), are increasingly providing instruction on responding to COVID-19. These actions demonstrate some attempts to provide adequate discussion and evaluation of risks as one means of protecting against claims for failures to provide sufficient disclosures of risks to investors.

Board communication to stakeholders and compliance with regulatory filings in a time of rapidly changing circumstances are other possible areas of additional risk. Preparation of adequate disclosures surrounding historical financial statements and forward-looking statements and the understanding of a range and management of possible outcomes may come under increased scrutiny.

Ultimately, an evaluation of business planning and crisis management involves consideration of many complex issues, board responses, and supporting analyses. For example, retail store closing decisions, airline management decisions, supply chain management issues, management decisions related to facilities, cash management, factors affecting insolvency, and many other subjects may come into question during the crisis. Did board members and officers stay adequately informed of issues and responses? Did the board provide adequate guidance? Did the board take appropriate action? Did officers provide sufficient information to the board and direction to management?

Many of the items mentioned above may seem to pertain to general types of management risks for D&O liabilities. Are there exclusions that would limit COVID-19 related liabilities? Many D&O insurance policies do contain a bodily injury exclusion. Even so, the bodily injury exclusion may include carve-back language that limits the intent of the exclusion so that it does not apply to securities claims, defense costs, or non-indemnifiable claims. Thus, the mere presence of a bodily injury exclusion may not automatically limit claims related to the COVID-19 virus unless it is an all-encompassing absolute exclusion for any and all bodily injury.

Many of the actions taken, or not taken, during the pandemic will likely be re-evaluated in the coming months and years. For example, the actions of cruise ship operators, decisions on restaurant and entertainment closings, management of airline hygiene and fleet capacity, financial institutions' management of cash resources, manufacturers' abilities to manage supply chains and the actions of healthcare providers may be just a few of the areas subject to review where financial and legal analysis may be utilized.

Errors and Omissions

Errors and omissions insurance (E&O) is a form of professional liability insurance, designed to protect employees and employers against clients' claims of negligence or inadequate work. E&O coverages often encompass legal costs and potential damages, and can result from manufacturing errors or the provision of negligent services, including professional services, which result in a third party financial loss. Notably, the loss does not involve bodily injury or property damage. E&O insurance frequently covers faulty products that are manufactured, handled, sold or distributed. The coverage typically includes errors and omissions caused by material defect, including property damage to the product, property damage to the work, and property damage to impaired property as well as negligence or failure to deliver promised services. E&O insurance is often carried by professional service firms to help protect against risks and claims against their employees' work or services.

In a COVID-19 environment, customers or clients may claim that a supplier's product failed or that a vendor was negligent in performing services outlined in a contract. Customers/clients may try to recover their financial losses through litigation. Naturally, the range of possible E&O liabilities associated with COVID-19 depends on the type of products or professional services provided by the company. Healthcare companies and employees, medical products companies, consulting firms, investment firms, and others could all face varying claims for failures to deliver. A further complicating issue for many service firms is that many E&O policies exclude independent contractors; however, legal decisions do not always uphold this exclusion. Accordingly, the definition of a covered employee must be carefully evaluated.

Other Considerations

Insurance policies are generally structured to cover risks associated with losses to the policyholder's property and liabilities stemming from that property. Additional policies are designed to mitigate the insured's losses from other specific risks, such as flood insurance, theft and employee dishonesty, etc. Additional coverages may help protect the insured when unique circumstances pierce the limits of basic policies by providing umbrella or excess lines coverages. All of these policies form a package of financial protections through layers of coverages that help shield the insured. This structure creates a web of protections and also a web of covered and excluded risks. Recoveries for insureds and payouts on losses by insurers will require careful analysis of the policies and the documentation supporting the claims.

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Related Issues That May Involve Insurance

Fraudulent Transfer Liability

The risks of fraudulent transfer litigation may involve multiple insurance coverages, often as claims against D&O policies but also E&O and general liability claims as well. This type of litigation can encompass a range of circumstances from merger and acquisitions to lending practices. Central issues may include the scope of due diligence performed in a transaction, pricing and consideration, whether material adverse change occurred, closing statements, interim operating data and covenants, representations and warranties, and other factors.

During a period of great uncertainty and rapidly shifting capital markets, the state of those markets and cash management, working capital reconciliations, forecasts and projections, solvency measures, and other items may take on heightened importance to the analysis and deal pricing.

For example, the impacts of COVID-19 on revenues, expenses, cash reserves, and financial viability of both buyers and sellers may need to be evaluated. Balance sheets and working capital may require additional analysis to ascertain the impact of COVID-19 on the timing of collections and disbursements for expenses. Does the presence of COVID-19 and its impact on the marketplace from governmental and voluntary actions constitute a material adverse change that would trigger rights under an MAC clause, permitting a buyer to walk away from a deal, and when?

Economic and financial experts and legal counsel can provide important guidance when evaluating these types of liabilities.

Commercial Contracts and Force Majeure

Commercial contracts brought or executed (or not) during the COVID-19 pandemic may involve issues of compliance, claims for commercial damages when breached, or insurance coverages when those policies involve contract issues or disputed policy terms of coverage. The range of potential commercial disputes is vast, but may become especially broad in the COVID-19 environment. In the most general terms, contract management and dispute resolution will often hinge on identifying the nature of the problem, compilation of detailed supporting documentation, analyzing the financial impact, and assessing defenses to claims.

In particular, COVID-19 may present a force majeure defense to breaches of contract. This defense contemplates a justification for unforeseeable circumstances outside the parties' control that prevent a party from fulfilling a contract. The presence and scope of these clauses in contracts vary widely. Their application will depend on the facts and circumstances and the specific language of the contract terms and governing law. Contract terms or legal requirements may require prompt notice or a declaration prior to invoking this defense. Many contracts may specifically exclude this defense if the consequences of the event can be mitigated.

Careful evaluation of management's options, contract interpretation, alternative supply, and alternative customer options should be undertaken prior to invoking contract clauses. Insurers will closely evaluate management's actions and their financial consequences to make their own determinations about insurance coverages and claims. Financial and consulting analysis and legal counsel may provide important guidance that helps inform management and/or insurers about their respective policy positions and claim evaluation.

Preliminary Observations

The current COVID-19 situation is rapidly changing and highly uncertain as this article is written; nevertheless, some initial comments are warranted.

Policy Coverage Interpretations Will Continue to Evolve

Going forward, it may be more difficult after this pandemic to obtain coverages for risks of this kind. It may be both prudent and necessary for the insurance market to tighten underwriting policies, and, depending on when the policy was issued, there could be arguments over whether the insured had knowledge of the loss before the policy was issued, raising concerns over known losses.

Policies underwritten prior to the pandemic may face different challenges than policies written during the pandemic depending on whether a prior knowledge exclusion is present and applies. This type of exclusion typically states that if some of the insureds (typically defined as a specific group of people within the exclusion) were aware before a specified date of any events that they knew could form the basis of a claim. Thus, prior knowledge of COVID-19 and its potential impact on covered events under the policies may be disputed. The types of policies, claims-made versus occurrence, will also affect policy coverages.

Policyholders and insurers should refer to guidance issued by insurance companies and insurance regulators that may benefit insureds by broadening coverages (such as by expanding definitions of property damage or eliminating exclusions for infectious diseases) as well as providing relief by lengthening the filing periods for claims.

Thus, insurers and insureds should each carefully consider the impact of policy exclusions and warranties, especially bodily injury provisions.

Detailed Analysis Will Be Needed

Both insurers and insureds, with help from financial advisors and legal counsel, will need to assess the applicability of policy provisions and/or exclusions by performing detailed financial and legal analysis of each situation. For example, business interruption claims will need to include support for the claimed impact resulting from decreases in business income. As discussed above, loss analyses may need to distinguish between the financial impact of voluntary actions versus the financial impact caused by a mandatory closing by Civil Authority. The analysis may encompass the insured's financial situation and business results both preceding and during allowed/valid loss periods as well as a financial analysis of the impact from the underlying cause(s) for the Civil Authority's order.

If, after a careful review of policy language, insureds and their financial and legal advisors believe that coverage is likely, the insureds will need to compile thorough documentation of their claims. Preparing and evaluating claims against insurance policies can be a detailed, time consuming process. Insureds should carefully compile thorough documentation that establishes the facts and circumstances that demonstrate links between cause and effect. Documentation may include contracts, evidence of production and customer delivery, correspondence, and other accounting and financial paper trails as well as detailed accounting of extraordinary expenses and other in-depth financial analyses that demonstrate the scope and financial impact of the claims.

Conclusion

Ultimately, an insurance policy is an individual contract between two parties. Questions including coverage, exclusions and levels of recovery will be unique to each policy contract and will be guided by the contract terms included and agreed to by the parties. Many of the issues discussed in the article may have been tested in court or in policy disputes arising from past events that involved infectious diseases, such as the 2003 SARS, 2009 H1N1 Swine Flu, and 2012 MERS outbreaks.

Outside legal counsel may need to be retained to provide advice and representation. Financial advisors may need to be retained to assist with compiling documentation and to provide analytical support. Both may be necessary when considering, preparing, submitting, and/or evaluating a claim.

As the situation with COVID-19 continues to evolve daily, the world is likely to see a mix of proactive approaches, deferred actions, and examples of lack of action as the ongoing uncertainty breeds a range of responses.

The most important advice may be to simply approach the entire pandemic period proactively, working toward a flexible balancing among available options for financial relief, and seeking informed advice and assistance from knowledgeable professionals.

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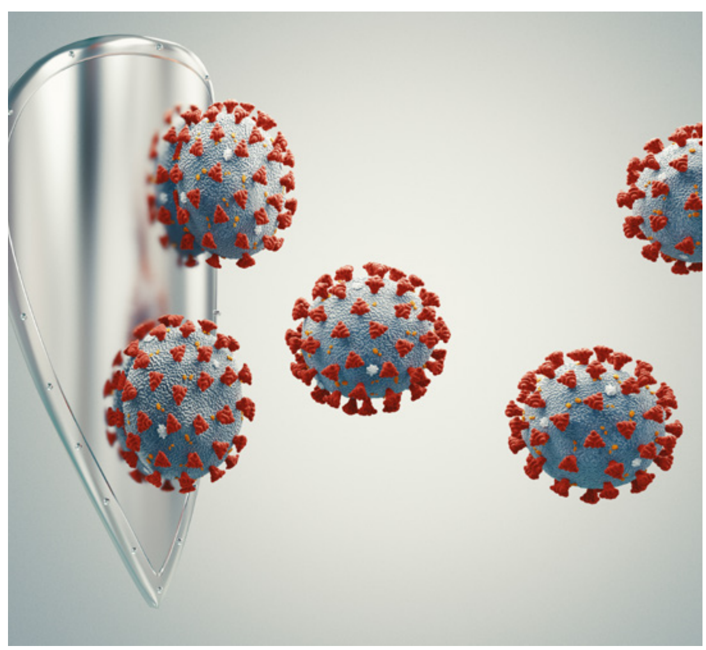

ANALYSES OF AND TAKEAWAYS FROM RECENT DELAWARE VALUATION DECISIONS[1]

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The year 2019 was another active period for valuation cases in the Delaware courts, and the activity has continued into 2020. The Supreme Court reversed one 2018 Court of Chancery decision in 2019 and affirmed another. Four valuation cases were decided by the Court of Chancery in 2019 and four more in early 2020; these decisions are discussed below.

Most Delaware valuation cases are statutory appraisals. Exhibit 1 shows that since 2006, transaction price has been the dominant metric in appraisals in arm's-length transactions, while most appraisals in related party transactions have been determined using discounted cash flows (DCF). From 2013, only two appraisals in arm's-length transactions (*AOL Inc.*[2] and SourceHOV, discussed below) were based on the court's DCF calculation; the others which used DCF considered it only as confirmatory of the valuation based on transaction price.

1 This article, which was previously published as "Highlights of 2019 Delaware Valuation Decisions," in Business Valuation Update, Vol.25: No.11 (November 2019), reprinted with permission, and also posted on Harvard Law School Forum on Corporate Governance (Jan. 12, 2020) [available at https://corpgov.law.harvard.edu/2020/01/12/delaware-appraisal-decisions/]; it is updated to include decisions through April 2020.

2 *In re Appraisal of AOL Inc.,* 2018 WL 1037450 (Del. Ch. Feb. 23, 2018); *modified*, 2018 WL 3913775 (Del. Ch. Aug. 15, 2018). In this case, the Court concluded that the sale process was compromised by the seller's commitment to a single buyer, making the negotiated transaction price unreliable as a measure of value.

Aruba Networks

The most significant 2019 decision was the Supreme Court's reversal of the Court of Chancery's decision in *Aruba Networks*. Aruba had been acquired in an arm's-length transaction. Vice Chancellor Travis Laster had valued it at "unaffected market price" – the average price during the 30 days prior to a news article that leaked the pending transaction.[3] He appraised the company at 69.4% of the deal price.

Subsequent to trial, the Supreme Court issued an opinion reversing Laster's decision in *Dell*,[4] in which he had relied on DCF and rejected market value. Laster then requested "supplemental briefing on 'the market attributes of Aruba's stock' in part because he 'learned how many errors [he] made in the *Dell* matter.'"[5] Neither petitioners nor respondent had discussed unaffected market price at trial. The respondent argued for unaffected market price in its subsequent post-trial brief. Laster's decision concluded that "Aruba's

3 *Verition Partners Master Fund Ltd. v. Aruba Networks, Inc.,* 2018 Del. Ch. LEXIS 52 (Del. Ch. Feb. 15, 2018) *("Aruba I"); rev'd,* 210 A.3d 128 (Del. 2019) *("Aruba II")*. *Aruba I* was discussed by the author in *Business Valuation Update,* October 2018.

4 *In re Appraisal of Dell Inc., 2016 Del. Ch. LEXIS 81 (May 31, 2016); rev'd, Dell Inc. v. Magnetar Global Event Driven Master Fund Ltd,* 2017 Del. LEXIS 518 (Del. Dec. 14, 2017).

5 *Aruba II* at 131, quoting the Court's letter to the parties.

Exhibit 1: Valuation Methods Used in Delaware Appraisal Decisions

	Number of Valuations	DCF or similar	Comparable Companies	Comparable Transactions	Asset Value	Transaction Price	Unaffected Mkt. Price
	Arm's-Length Transactions						
1998-2005	2	2	0	0	0	1	0
2006-2013	4	3	1	0	0	2	0
2014-1Q 2020	16	7	2	1	0	13	1
Total	22	12	3	1	0	16	1
	Related Party Transactions						
1998-2005	14	8	7	4	0	0	0
2006-2013	7	7	1	1	1	0	0
2014-1Q 2020	9	9	0	0	0	0	0
Total	30	24	8	5	1	0	0

Note: Some decisions used more than one method.

unaffected market price provides the best evidence of its going concern value."[6]

The Vice Chancellor had noted that:

> Aruba management knew internally that Aruba was having an excellent quarter and would beat its guidance. But…[it] time[d] the announcement of the merger to coincide with the announcement of Aruba's February 2015 earnings.[7]

Nonetheless, he concluded:

> [T]he record does not provide a persuasive reason to question the reliability of Aruba's trading price based on the decision by Aruba management to bundle together two pieces of information.[8]

The Supreme Court disagreed, concluding that the not-yet-disclosed information had indeed affected the public market:

> HP [the buyer]…had material, nonpublic information that, by definition, could not have been baked into the public trading price. …In particular, HP had better insight into Aruba's future prospects than the market because it was aware that Aruba expected its quarterly results to exceed analysts' expectations.[9]

The Supreme Court criticized the Court of Chancery's decision that the unaffected market price was fair value:

> The lack of a developed record on whether the stock price was an adequate proxy for fair value buttresses our holding that the Court of Chancery abused its discretion by awarding the thirty-day average unaffected market price of $17.13 per share.[10]
>
> Due to requirements for SEC review and a shareholder vote, an acquisition of public companies cannot close until well after the announcement of a transaction. The Supreme Court pointed out that the Delaware appraisal statute requires that the company be valued at the closing date:
>
> Although §262 requires the Court of Chancery to assess Aruba's fair value as of "the effective date of the merger," the Court of Chancery arrived at the unaffected market price by averaging the trading price of Aruba's stock during the thirty days before news of the merger leaked, which was three to four months prior to closing.[11]

The Supreme Court directed a final judgment that petitioners be awarded $19.10 per share, which was Aruba's estimate of the deal price ($24.67) minus synergies. It agreed with Laster's conclusion that the transaction price included substantial synergies.[12] The Supreme Court noted that the $19.10 valuation, which was 77.4% of the deal price and 11.5% above the unaffected market price, "was corroborated by…Aruba's [expert's] DCF, comparable companies, and comparable transactions analyses."[13]

PLX Technology

In this fiduciary duty case, a hedge fund's representative who was a director of the publicly traded company, among other things, had conversations with the buyer and its investment banker that were not disclosed to

6 *Aruba I* at *4.
7 *Aruba I* at *63.
8 *Aruba I* at *66.
9 *Aruba II* at 139.

10 *Aruba II* at 140.
11 *Aruba II* at 132.
12 Laster concluded that the transaction prices minus synergies was $18.20 per share. [*Aruba I* at *45.]
13 *Aruba II* at 142.

Continued from p.27

other board members. The Court of Chancery agreed with plaintiffs that the hedge fund had aided and abetted breaches of the board's duties to shareholders. However, Vice Chancellor Laster rejected the plaintiffs' claim that the $6.50 deal price was unfair. He concluded that plaintiffs "were unable to prove that the breaches resulted in damages."[14]

Laster determined that the projections used by the plaintiffs' expert in his DCF calculations were flawed in three respects:

1. The projections included "a new line of business involving a new set of customers with a new set of requirements" and "evidence at trial did not give [the Court] sufficient confidence to base a damages award on this element of the projections."[15]
2. "PLX management had a track record of missing its projections."[16]
3. "[B]idders do not appear…to have believed that [the projection] supported valuations in the range that [plaintiffs' expert] posited…If the projections were sufficiently reliable to support a credible valuation of $9.82 per share, then it seems likely that another buyer would have competed."[17]

Also, Laster concluded that plaintiffs' expert's discount rate was too low. He faulted expert's beta because it was based on daily returns rather than weekly or monthly returns, thereby reducing beta:

> "[W]hen the return interval is shortened, the following occurs: Securities with a smaller market value than the average of all securities outstanding (the market) will generally have a decreasing beta, whereas securities with a larger market value than the average of all securities outstanding will generally have an increasing beta."[18]

Defendants' expert did not fully credit management's projections for the new line of business and his DCF calculation valued PLX at less than the transaction price.[19] The Court agreed that the deal price exceeded going-concern value:

> Although flawed from a fiduciary standpoint, the details of the sale process that the Board conducted and the nature of the synergistic deal with Avago that it generated means that the plaintiffs received consideration that exceeded the value of the Company on a stand-alone basis.[20]

The Supreme Court affirmed the trial court's decision that plaintiffs failed to prove that they suffered damages.

Trussway

In February 2019, a shareholder who was squeezed out of Trussway Holdings, Inc., a private company, was awarded an amount 5% higher than the merger value. Vice Chancellor Sam Glasscock III determined fair value solely on his DCF calculation, rejecting petitioner's expert's comparable company analysis because the "supposed 'comparable companies' are too divergent from [Trussway], in terms of size, public status, and products, to form meaningful analogs for valuation purposes."[21]

The Court averaged DCF calculations based on two periods: a nine-year management projection and the first five years of that projection. It described the five-year period as "more standard."[22] (However, the reason it is "more standard" does not stem from valuation theory, but simply reflects the fact that that few companies make projections beyond five years.) The valuation based on the five-year period was 15% lower than the valuation based on the nine-year period.

The management projections included "strategic initiatives" that included, among other things, selling new products to be added to the company's product line and gaining additional market share through sales to market segments in which the company did not yet participate.[23] Both experts adjusted their valuations to reflect their concerns that the longer-term projections were optimistic. Petitioner's expert increased his discount rate by 1% after the first five years, and respondent's expert gave 25% weight to the nine-year projection and 75% weight to the five-year period.[24]

In using the five-year period, the Court effectively substituted the 2.3% perpetual growth rate (as to which both experts agreed) for the higher growth rate that management expected in the final four years. The Court agreed with the experts' view that that an adjustment should be made to a value based on the nine-year projection, and it explained its decision to give partial weight to the shorter period:

> Of more concern to me is Trussway management's ability (or that of any human prognosticator) to accurately predict corporate performance nine years out, particularly concerning new facets of

14 *In re PLX Technology Inc. S'holders Litig.*, 2018 WL 5018353 (Del. Ch. Oct. 16, 2018) at *56*; aff'd,* 211 A.3d 137 (2019).
15 *Id.* at *52.
16 *Id.*
17 *Id. at *53.*
18 *Id.* at *54, quoting Gabriel Hawawini, "Why Beta Shifts as the Return Interval Changes," *Fin. Analysts J.,* May-June 1983 at 73.
19 *Id.* at *52.

20 *Id.* at *56.
21 *Hoyd v. Trussway Holdings LLC,* 2019 WL 994048 (Del Ch. Feb. 28, 2019) at *5.
22 *Id.* at *7.
23 *Id.* at *2.
24 *Id.* at *6.

> a business. I am also aware that there is a degree of huckster's optimism in these predictions.[25]

Jarden

The *Jarden* decision in July 2019 determined the appraisal price in an arm's-length transaction solely on the unaffected market price, the closing price immediately before *The Wall Street Journal* published rumors of the transaction.[26] Vice Chancellor Joseph Slights III relied on "expert testimony…including an event study that analyzed the market's response to earnings and other material announcements."[27] He noted that (i) Jarden had no control shareholders, (ii) 94% of its shares were in the public float, (iii) the bid-ask spread was only 0.02%, and (iv) approximately 20 analysts had published reports on Jarden in the year prior to the merger.[28] He also concluded that the unaffected market price was not "stale" on the closing date.[29]

Petitioners' expert posited that the market price was depressed by a "conglomerate discount." The Court rejected this argument, noting that "it is not clear that this notion [of a conglomerate discount] is accepted within the academ[ic community] or among valuation professionals."[30]

The Court concluded that the transaction price was not an applicable valuation standard in this situation, explaining:

> I place less weight on this market-based valuation approach in this case because the sales process was not well-conceived or well-executed and the expert analysis of the transaction synergies raised more questions than it answered.[31]

Even though the Court agreed with petitioners' claim that the negotiating approach of Jarden's Executive Chairman "may well have set an artificial ceiling on what Newell was willing to pay,"[32] it nonetheless based its valuation on unaffected market price ($48.31), which was 18.4% *less* than the deal price ($59.21).

The Vice Chancellor dismissed the petitioners' valuation based on comparable companies, saying, "After considering the evidence, I am satisfied that Petitioners' comparable companies analysis is not credible because Jarden had no reliable comparables."[33] Several other decisions in recent years have similarly rejected expert testimony utilizing the comparable company method.[34]

Slights noted that his valuation was confirmed by his DCF calculation and by "the most reasonable estimate" of "the Merger price less synergies."[35] In his DCF calculation, he used the midpoint of the experts' inflation and GDP growth estimates as the perpetual growth rate,[36] an approach often used by the Court of Chancery.

This decision is being appealed by petitioners.[37]

Columbia Pipeline

An August 2019 decision by Vice Chancellor Laster based appraisal value in an arm's-length transaction solely on the deal price.[38] Deal price has become the predominant standard of value in appraisals of companies acquired in arm's-length transactions.

The Vice Chancellor rejected petitioners' claim that the company's value increased between signing and closing.[39] He also rejected the unaffected market price as a measure of value in this case[40] and rejected its DCF analysis.

Petitioners' DCF valuation was 24% over the deal price and 57% over unaffected market. Laster rejected their DCF analysis as contrary to contemporaneous market evidence:

> [Expert]'s opinion that the value of Columbia materially exceeded the deal price conflicts with the market behavior of other potential strategic acquirers who had shown interest in Columbia, and who did not step forward to top TransCanada's price.[41]

He also expressed concern about the terminal value calculated by petitioners' expert:

> [T]he terminal value represented 125% of his valuation of Columbia. . .. This court has questioned the utility of a DCF in a case where the terminal value represented 97% of the result, finding that "[t]his back-loading highlights the very real risks" presented by using that

25 *Id.* at *6.

26 *In re Appraisal of Jarden Corp.,* 2019 WL 3244085 (Del. Ch. July 19, 2019) at *28-*29; *modified*, 2019 WL 4452209 (Sept.16, 2019). The Court defined unaffected market price as a single price rather than an average over a period of time. [*Id.* at *19-*20.]

27 *Id.* at *2.

28 *Id.* at *27.

29 *Id.* at *31.

30 *Id.*

31 *Id.* at *26.

32 *Id.* at *24.

33 *Id.* at *3.

34 *E.g.*, in the past five years, *Domain Associates, Inc. v. Shah,* 2018 WL 3853531 (Del. Ch. Aug. 13, 2018) at *18; *Blueblade Capital Opportunities LLC v. Norcraft Cos., Inc.,* 2018 WL 3602940 (Del. Ch. July 27, 2018) at *28; *In Re Appraisal of SWS Group, Inc.,* 2017 Del. Ch. LEXIS 90 (Del. Ch. May 30, 2017); at *31-*32, *aff'd*, 181 A.3d 153 (Del. 2018); *In re ISN Software Corp. Appraisal Litig.,* 2016 Del. Ch. LEXIS 125 (Del. Ch. Aug. 11, 2016) at *9, *aff'd, ISN Software Corp. v. Ad–Venture Capital Partners, L.P.,* 173 A.3d 1047 (Del. 2017); *Dunmire v. Farmers & Merchants Bancorp of Western Pa., Inc.,* 2016 Del. Ch. LEXIS 167 (Nov. 10, 2016) at *30; *Merlin Partners LP v. AutoInfo, Inc.,* 2015 Del. Ch. LEXIS 128 (Del. Ch. Apr. 30, 2015) at *32.

35 *Id. at *50.*

36 *Id. at *32.*

37 Delaware Cases to Watch in 2020, Law360, Jan. 1, 2020, *available at* www.law360.com/articles/1229419/delaware-cases-to-watch-in-2020.

38 *In re Appraisal of Columbia Pipeline Group, Inc.*, 2019 WL 3778370 (Del. Ch. Aug. 12, 2019) at *43.

39 *Id.*

40 *Id.* at *49.

41 *Id.* at *50.

Continued from p.29

methodology and "undermin[ing] the reliability of applying the DCF technique."[42]

Laster observed, "The wide swings in output that result from legitimate debate over reasonable inputs undermine the reliability of [petitioner's expert]'s DCF model."[43]

He did not reduce the price for synergies, noting that the synergy adjustment proposed by respondent was excessive:

> [Respondent] did not meet its burden of proof. [It] likely could have justified a smaller synergy deduction, but it claimed a larger and unpersuasive one. This decision therefore declines to make any downward adjustment to the deal price.[44]

Stillwater Mining

A second August 2019 decision by Laster also ruled that appraisal value in an arm's-length transaction was the deal price.[45] He rejected trading price, given the availability of "a market-tested indicator like the deal price."[46] He also rejected DCF in this case:

> The legitimate debates over [contested] inputs and the large swings in value they create undercut the reliability of the DCF model as a valuation indicator.[47]

Laster determined that the trading price was not a measure of fair value because it was impacted by inadequate disclosure of Stillwater's reserves. He observed that SEC limitations on disclosure of reserves that did not rise to the "probable" level affected the viability of trading price as a valuation indicator:

> [The SEC did] not permit a mining company to disclose information about inferred resources, which are mineral deposits where the quantity, grade, and quality "can be estimated" based on "geological evidence," "limited sampling," and "reasonably assumed, but not verified, geological and grade continuity."[48]

Stillwater is the only U.S. source of "platinum group metals," palladium, platinum and rhodium. The Vice Chancellor observed, "Between signing and closing, the prices of palladium and platinum increased materially, with a direct effect on Stillwater's value."[49] He did not adjust his appraisal for this price movement because petitioners did not argue for it or quantify its effect on value.

> [W]hether to adjust the deal price for an increase in value between signing and closing presents numerous difficult questions. In this case, the petitioners did not argue for an adjustment to the deal price, and so the parties did not have the opportunity to address these interesting issues. . .. The petitioners accordingly failed to prove that the deal price should be adjusted upward to reflect a change in value between signing and closing.[50]

UIP Companies

Delaware courts have seldom accepted company-specific premiums in determining cost of capital. Former Chief Justice Leo Strine, Jr., wrote in 2006, "To judges, the company specific risk premium often seems like the device experts employ to bring their final results into line with their clients' objectives."[51] However, Vice Chancellor McCormick ruled in a shareholder dispute in January 2020 that special circumstance merited the application of this factor to reduce the value of a small private real estate management company:

> Given UIP's unique circumstances as almost wholly dependent on the SPEs [special purposes real estate entities] and [UIP's two principals] for its revenue, the Court finds that Defendants have met their burden of showing that a specific-company risk premium is necessary in this case.[52]

SourceHOV Holdings

Five minority shareholders in SourceHOV filed for appraisal when the company engaged in a three-way merger with another private company and a Nasdaq-listed SPAC (special purpose acquisition company).

Both experts agreed that the income approach was the only appropriate valuation methodology because there were no adequate guideline companies or transactions and there was no market check on the deal price process. Petitioners' expert used both DCF and Capital Cash Flow (CCF). Vice Chancellor Slights noted:

> CCF is a variation of DCF that is better suited to value future cash flows where a company's capital structure is expected to change. Ultimately, a traditional DCF and CCF are "algebraically equivalent."[53]

Respondent's expert used an adjusted present value DCF model that the Court said was "functionally the

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42 *Id.* at *51, quoting *Union Ill. 1995 Investment LP v. Union Finl. Group, Ltd.*, 847 A.2d 340, 361 (Del. Ch. 2003).

43 *Id.* at *52.

44 *Id.* at *45.

45 *In re Appraisal of Stillwater Mining Co.*, 2019 WL 3943851 (Del. Ch. Aug. 21, 2019) at *50.

46 *Id.* at *59.

47 *Id.* at *61.

48 *Id. at *58,* quoting the SEC's *Industry Guide 7* [17 C.F.R. 229.801(g)]. *Industry Guide 7* was rescinded on Oct. 31, 2018 [www.sec.gov/corpfin/secg-modernization-property-disclosures-mining-registrants].

49 *Id*. at *48.

50 *Id.* at *50.

51 *Del. Open MRI Radiology Assocs. v. Kessler*, 898 A.2d 290, 339 (Del. Ch. 2006).

52 *Coster v. UIP Cos., Inc.*, 2020 WL 429906 (Del. Ch. Jan.28, 2000) at *25.

53 *Manichaean Capital, LLC v. SourceHOV Hldgs., Inc.*, 2020 WL 496606 (Del. Ch. Jan. 30, 2020) at *12. *See* Richard A. Ruback, "Capital Cash Flows: A Simple Approach to Valuing Risky Cash Flows," 31(2) *Financial Mgt.* 85 (2002).

same as [the] CCF model."[54] The principal differences between the two analyses were (i) the calculation of beta, (ii) the small company premium, (iii) debt load projections, and (iv) the projection on which the analysis was based; the fourth difference was not material.

Petitioners' expert determined beta based on the betas of 19 publicly traded guideline companies. Respondent's expert calculated beta based on the yield on SourceHOV's debt. The Court rejected the beta based on the company's debt, describing it as "methodologically novel" and unsupported by academic literature.[55]

Petitioners' expert based his small stock premium of 2.08% on the 8th decile in Duff & Phelps' 2017 Valuation Handbook, while respondent's expert used the 9th decile's 2.68%. Both cited the market price of shares of the surviving company. The latter argued that this price included synergies. The Court was "persuaded the 2.68% size premium is more accurate on this record."[56]

Respondent's expert predicted that SourceHOV would have retired all its debt when it matured in 2020, thereby lowering its tax saving from interest deductions. The Court rejected this premise.

The expert's valuations were $5,079 per share and $2,817 per share, respectively. The Court accepted all of the petitioners' report other than the small stock premium and appraised SourceHOV at $4,591 per share.

The Court commented favorably on an adjustment in the petitioners' report that favored the respondent, whose forecast included depreciation substantially in excess of capital expenditures:

> This forecast led to "depreciating and amortizing more asset value than [SourceHOV] even ha[d] on the books [brackets in original].". If [petitioners' expert] had accepted this high level of depreciation and amortization …, the result would have been to increase SourceHOV's value in a DCF analysis. Instead, to account for his concern that depreciation and amortization forecasts were too high, [he] made a Respondent-friendly adjustment to provide a more accurate calculation.[57]

In the past, the Court of Chancery has sometimes erred by accepting terminal value calculations in which depreciation materially exceeded capex.[58]

54 *Id.* at *14.
55 *Id.* at *21.
56 *Id.* at *27.
57 *Id.* at *25.
58 *In re Emerging Communications, Inc. Sh'h's Litig.*, 2004 Del. Ch. LEXIS 70 (Del. Ch. May 3, 2004) at *57, n.56; *Lane v. Cancer Treatment Centers of America, Inc.*, 2004 Del. Ch. LEXIS 108 (Del. Ch. July 30, 2004) at *111.

Panera Bread

A January 2020 decision appraised Panera Bread, which had been taken private in a negotiated transaction. Both experts valued the company using DCF, comparable companies, and comparable transactions. However, respondent's expert testified that he viewed his calculations as corroborative of his deal-price-minus-synergies valuation and gave no independent weight to them.

Vice Chancellor Zurn pointed out several flaws in petitioners' expert's DCF analysis but did not criticize respondent's expert's DCF.[59] He rejected both experts' comparable transaction analyses because "neither sample size is reliable enough to afford it weight."[60] He criticized the comparable companies selected by each expert and stated:

> Neither expert presents a reliable empirical analysis to show a suitable peer group; both sets have material weaknesses. For that reason, I do not find comparable companies as a fair measure of value. Instead, I view both parties' comparable companies analyses as an attempt to corroborate their preferred valuation.[61]

The Court accepted the testimony of respondent's expert that the deal price of $315 per share included synergies of $11.56 per share.[62] However, the company had prepaid the full $315 to the dissenters in order to avoid paying interest on the award, and the Vice Chancellor ruled that Delaware law did not authorize him to order a refund of the difference.[63]

Real Time Cloud Services

This March 2020 decision addressed a dispute between partners in of a small accounting services firm. Defendants' expert based his valuation on the company's internal financial statements, while plaintiff's expert used financial statements "recreated" for purposes of the litigation that were inconsistent with the company's records and the plaintiff's own tax returns.[64] The Court based its valuation on the defendants' report, adjusted to use the higher growth rate posited by the plaintiff.[65]

Expert Witness Testimony

The Court of Chancery often rejects not only expert testimony that is not persuasive, but also testimony that is not supported in the valuation literature, e.g., the conglomerate discount rejected in *Jarden* and

59 *In re Appraisal of Panera Bread Co.*, 2020 WL 506684 (Del. Ch. Jan. 31, 2020) at *40-*41.
60 *Id.* at *43
61 *Id.* at *42.
62 *Id.* at *40.
63 *Id.* at *44.
64 *Zachman v. Real Time Cloud Services, LLC*, 2020 WL 1522840 (Del. Ch. Mar. 31, 2020).at *16-*17.
65 *Id.* at *17.

Continued from p.31

the beta based on daily price changes rejected in *PLX Technology.*

The Court on several occasions has criticized experts who overreach in their valuations. As discussed above, it faulted the petitioners' expert's DCF analysis in *Columbia Pipeline* as contrary to market evidence. Also, the respondent's expert in *Columbia Pipeline* was deemed to have been unpersuasive as to the amount of synergies included in the transaction price; the Court commented that respondent "likely could have justified a smaller synergy deduction."

On the other hand, the absence of testimony on relevant valuation issues can be harmful. Because there was no testimony as to the impact of increased palladium and platinum prices prior to closing in *Stillwater Mining*, the Court was unable to quantify impact of this change on the appraised value. In a 2018 case, Chancellor Andre Bouchard declined to consider respondent's post-trial argument for valuing the company at unaffected market price because the issue had not been discussed at trial.[66]

In both *Columbia Pipeline* and *Stillwater Mining*, Laster quoted a 2016 opinion:

> An argument may carry the day in a particular case if counsel advance it skillfully and present persuasive evidence to support it. The same argument may not prevail in another case if the proponents fail to generate a similarly persuasive level of probative evidence or if the opponents respond effectively.[67]

He added in both decisions:

> Likewise, the approach that an expert espouses may have met "the approval of this court on prior occasions," but may be rejected in a later case if not presented persuasively or if "the relevant professional community has mined additional data and pondered the reliability of past practice and come, by a healthy weight of reasoned opinion, to believe that a different practice should become the norm."[68]

The valuation approaches that the Court of Chancery will accept necessarily depend on the facts of the specific case.

> The appraisal exercise is, at bottom, a fact-finding exercise, and our courts must appreciate that, by functional imperative, the evidence, including expert evidence, in one appraisal case will be different from the evidence presented in any other appraisal case. Different evidence, of course, can lead to different decision paths and different outcomes.[69]

Conclusion

These recent cases demonstrate the importance of high quality expert testimony in valuation litigation. Although each decision is fact-specific, experts should be familiar with past practice in the Court of Chancery and with the its interpretation of fair value and operative reality. Experts should be careful to utilize practices that are supported in the academic and valuation communities and should be aware of current developments in the profession. Columbia Pipeline's criticism of petitioners' DCF calculation and of respondent's synergies claim are warnings against overreaching, while the Court's inability in that case to determine the market impact of higher product prices shows how the absence of relevant testimony can impact a decision.

In the past, event studies were often used in other types of security cases but not in appraisals. The current focus on deal prices and historical market prices in arm's-length transactions has necessitated testimony on event studies in appraisal cases where the Court relies on market factors rather than corporate valuations.

In recent cases, many experts have not used comparable companies and comparable transactions. This may be a consequence of the Court of Chancery's frequent rejection of these approaches. Nonetheless, these valuation methods are widely used in the investment community. Comparable companies are frequently used in research reports, and both approaches are commonly included in investment bank presentations to corporate clients and in fairness opinions. In investment bank fairness opinions issued in connection with the acquisitions of companies that were appraised in Delaware since 2010, 97% used comparable companies and 76% used comparable transactions as a valuation method. Chancellor William B. Chandler III wrote in 2011:

> [I]t is preferable to take a more robust approach involving multiple techniques – such as a DCF analysis, a comparable transactions analysis (looking at precedent transaction comparables), and a comparable companies analysis (looking at trading comparables/multiples) – to triangulate a value range, as all three methodologies individually have their own limitations."[70]

66 *In re Appraisal of Solera Holdings, Inc.*, 2018 WL 3625644 (Del. Ch. July 30, 2018) at *32.

67 *Merion Capital L.P. v. Lender Processing Services, L.P.*, 2016 WL 7324170 (Del. Ch. Dec. 16, 2016) at *16.

68 *Columbia Pipeline* at *16 *and Stillwater Mining* at *20, quoting *Global GT v. Golden Telecom, Inc.*, 993 A.2d 497, 517 (Del. Ch. 2010); *aff'd*, 11 A.3d 214 (Del. 2010).

69 *Jarden* at *1.

70 *Muoio & Co. v. Hallmark Entm't Invs. Co.*, 2011 Del. Ch. LEXIS 43 (Mar. 9, 2011) at *83-*84.

Comparable transactions can be useful in appraisals when they can be adjusted for the impact of synergies. Experts should continue to use comparable companies when they deem it appropriate and should explain to the Court the basis for their selection of the comparables and why they are relevant to the subject company.

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BOARD COMPENSATION IN TIMES OF DISTRESS: PREPARING FOR THE ROAD AHEAD

BRIAN L. CUMBERLAND AND J.D. IVY
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When companies prepare for a potential restructuring, adjustments to compensation programs for executives and key employees are common practice. However, adjustments to non-employee director compensation are often overlooked.

Normal-course board compensation is comprised of two elements – (1) cash retainers (including an annual board retainer and committee retainers) and (2) an equity retainer (typically restricted stock that vests if the director remains on the board for 1 to 3 years from grant). At the time of a potential restructuring, however, previous equity awards issued by the company typically have little to no value, and the company may not have enough available equity to properly compensate its board members.

According to the 2018-2019 NACD Public Company Governance Survey, the average public company director's time commitment equates to nearly 245 hours each calendar year. During, and in preparation for a restructuring, the workload for board members significantly increases. This is particularly true during the early stages of a restructuring when many important decisions require the board's timely attention. The increased time commitment is one factor that should be considered when evaluating board compensation practices and levels during a restructuring.

Moreover, in a bankruptcy setting, board members are also likely working themselves out of a job, as most board members do not continue service after the company emerges from bankruptcy with the new owners or the company is sold. Our experience has shown there is a 98% board member turnover. These factors highlight the need to appropriately compensate essential board members in order to maximize the value of the company over the course of the restructuring process.

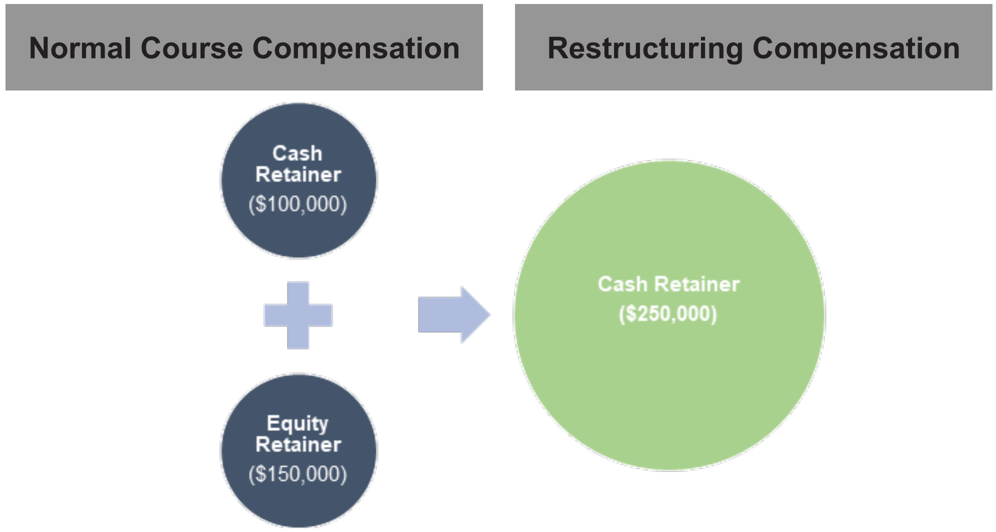
Common Changes to Board Compensation

Prior to making any changes to compensation, boards should evaluate market levels of pay by benchmarking compensation at similar companies. Appropriate compensation is essential to maintaining the directors' focus during a time of distress and increased workload.

Benchmarking director compensation also provides assurance to companies that their board members are being compensated fairly and within market, which may reduce the company's risk associated with utilizing out-of-market pay practices.

Conversion to Cash Compensation

As a company approaches a restructuring event, equity compensation generally does not provide an appropriate incentive due to its diminished value. The most common process boards undertake during this time is to conduct a market analysis to ensure competitive levels of compensation and then convert the board compensation to a fully cash-based program. For example, a company with a $100,000 cash retainer and a $150,000 equity retainer would convert to a $250,000 cash retainer (see diagram on next page.)



Adjustments to payout timing are also considered in order to maintain the directors' focus throughout the restructuring process. For example, companies with programs that pay out annually often convert into a quarterly program that is payable in advance. Additionally, the directors' increased time commitment should be considered when evaluating potential changes to go-forward compensation, as additional compensation may be warranted.

Special Restructuring Committee

In certain cases, the board will form a separate restructuring committee in anticipation of the specialized tasks associated with the restructuring. Or, a board member might be appointed the Chief Restructuring Officer ("CRO"). In exchange for service on the special committee or as a CRO, additional compensation commensurate with their additional duties and extraordinary workload is warranted. Compensation for service on a special restructuring committee or a CRO vary widely based on the company's needs and the individual director's contributions.

Return to Meeting Fees

For steady-state companies, the general market trend has been for boards to move away from paying per-meeting fees, instead focusing on a fixed retainer structure. However, in a restructuring context, the use of meeting fees may be more appropriate as a means to reflect the additional workload during the restructuring process. However, a fixed retainer, with no meeting fees, simplifies the administrative process and removes the challenge of determining what is considered a "meeting."

Conclusion

When approaching a potential restructuring, companies should ensure board compensation plans are fair, reasonable, and aligned with market practices. Not only is it best practice but doing so demonstrates a company's commitment to its board and accountability to stakeholders during the restructuring process.

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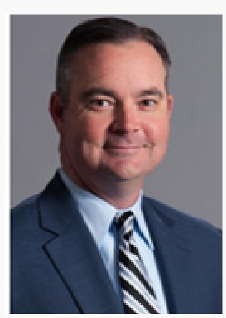

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DISTRESS ODYSSEY: EXPLORING A COMMON TRI-PARTY MODEL[1]

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I believe that this article makes a substantial practical contribution to the insolvency field by combining into a single model the decision functions of the firm, the banks and the bondholders. All previous research addressed the decisions of each of those three constituencies either in isolation or in pairs of parties in conflict. By reducing guesswork, the single-model framework can lead to more efficient resolutions of conflicts resulting from financial distress.

I was led to the development of this framework through the realization that every firm, even financially distressed ones and those seeking bankruptcy protection, have some need for investment, lest they inexorably stumble or spiral toward liquidation. The introduction of the investment function, in fact, acted as the glue to bind the firm's, the banks', and the bondholders' decision functions into a single model available to all three constituencies simultaneously.

The work of Bulow and Shoven (1978) and the follow-up work of White (1980, 1983) demonstrate how inter-creditor conflicts can lead to inefficiencies when a firm is in financial distress. The impediment to efficient renegotiation in these models is the assumption that the firm cannot renegotiate with its bondholders, although it can do so efficiently with a bank. On the one hand, because bondholders claim part of the cash flows from new investment, distressed firms can have difficulty issuing equity or debt for new investment. Thus, the firm may pass up positive-NPV investments.[2] On the other hand, a distressed company may actually overinvest because shareholders receive much of the actual benefits of risky investment but bear little of the downside costs. As a result, the distressed firm may take negative-NPV projects which increase the riskiness of its cash flow.[3]

I derive the three-party model from two lines of inquiry, both based on the common denominator of the distressed firm's investment decision.

The first is to show that these investment inefficiencies are still a problem even when firms can renegotiate with bondholders. I analyze the implicit renegotiation that takes place when firms offer a basket of new securities and cash in exchange for the original bonds. Bond restructurings almost always take the form of exchange offers because the Trust Indenture Act of 1939 requires unanimous bondholder consent before a firm can alter the principal, interest, or maturity of its bonds. Exchange offers effectively alter these features but, since nontendering bondholders maintain their original claim for payments on the firm, the Trust Indenture Act is not violated.

Of course, exchanges are hard to complete. This is because, although in situations where bondholders as a group would be better off if the exchange offer is successful, those with small stakes have an incentive to hold out. This free-rider problem can be, and often is, mitigated by offering in exchange for the old bonds a more senior security, one with shorter maturity, or, when it is available, cash. Moreover, in these types of exchanges bondholders may be willing to tender at below-market prices out of fear that holding out will make them effectively junior to the new securities. But the important point is that even though exchange offers enable firms to restructure their bonds profitably, they do not, in general, result in efficient investment. The problem is that, in deciding whether to tender, bondholders take the firm's investment policy as a given. Thus, individual bondholders – each with small stakes – fail to take into account their effect on the firm's investment decision, despite the fact that their decisions, taken as a whole, affect investment behavior.

1 This article was adapted from a longer article titled "The Odyssey of Financial Restructuring Under the U.S. Bankruptcy Code" (https://decisionboundaries.com/the-odyssey-of-financial-restructuring-under-the-us-bankruptcy-code-2/) posted website on December 15, 2019.
2 This is the effect first analyzed by Myers (1977).
3 This risk-taking effect was first analyzed in detail by Jensen and Meckling (1976).

My second line of inquiry was to analyze the effects of bankruptcy law on investment. I conclude that the key features of the law – the automatic stay, the voting rules for plan approval, and the power of shareholders to retain value for themselves – all act to increase investment both in and out of bankruptcy. Whether this increases efficiency depends on whether the firm would otherwise have underinvested or overinvested as a result of financial distress. I characterize the aspects of the firm's debt structure – the seniority of bank debt relative to bond debt, the maturity structure, and the existence of restrictive covenants – that lead to underinvestment or overinvestment. I am then able to identify the situations in which Chapter 11 increases or decreases investment efficiency.

1. A SIMPLE MODEL OF WORKOUT AND INVESTMENT

In this section, I consider a simple model of a financially distressed firm with both bank and bond debt. I model the concept that it is easier to renegotiate with a bank (or a small syndicate of banks) than with numerous bondholders by assuming at first that the firm cannot renegotiate with bondholders. I relax the assumption in Section 2 below (Distressed Exchange Offers for Bond Debt), where I present a model of exchange offers.

The debt's maturity structure affects the firm's ability to work itself out of distress and is, therefore, an important issue. I assume that all of the bank debt, with face value B, is short-term, maturing at date 1. By contrast, a fraction of the face value of the bond debt, D, is due at date 1, and fraction $1–q$ is due at a later date 2. This timing reflects the fact that the bank debt generally has shorter maturity than the bond debt.

The firm has two assets: cash and/or liquid assets of Y, and an investment project which requires an investment of X at date 1 and returns a stochastic cash flow of X at date 2 distributed over the support $[0,\infty)$. I denote the cumulative distribution of X as $F(X)$, the density as $f(X)$, and the mean as $\bar{X}$. For simplicity, I assume that the firm has no fixed assets, such as plant and equipment. All parties are risk-neutral, and the risk-free interest rate is zero.

Finally, I assume that the firm is in financial distress at date 1; its assets are worth less than the face value of its obligations: $Y < B + D$. Thus, if the firm is liquidated, and the absolute priority rule is followed, shareholders receive nothing, and bondholders and the bank share between them. Assuming equal priority of bank and bond debt in liquidation, the bank gets $[B/(B+D)]Y$, which I denote L_B, and the bondholders get $[D/(B+D)]Y$, which I denote L_D. If the firm is liquidated, the bonds maturing at date 2 are accelerated to date 1, consistent with the bankruptcy code. In this section, I assume that bankruptcy is equivalent to liquidation and that Chapter 11 reorganization is ruled out. In Section 3 (Reorganization Law and Investment), I analyze how bankruptcy law's reorganization mechanism affects investment incentives in this model.

The central question is whether the financially distressed firm invests in the project at date 1. If $Y>I+B+qD$, the firm has enough cash to invest in the project and pay off the bank and bond debts maturing at date 1. In this case, the firm invests regardless of whether the project has positive or negative NPV: if the firm does not invest, the equity gets nothing; if the firm does invest, there is some chance that the equity's payoff would be positive. I assume that $Y<I+B+qD$ so that the firm needs an additional $I+B+qD-Y$ to meet its date-1 obligations and invest in the project.

The firm has several options for meeting the cash shortfall. It can try to raise new funds by issuing debt or equity, or it can try to restructure its existing bank or bond debt. I focus on the debt restructurings. I show later that the firm prefers to restructure rather than to issue new debt or equity.

1.1. Bank Debt Restructurings

I consider bank debt restructurings first because they are substantially easier to organize than bond restructurings.[4] Indeed, the Trust Indenture Act of 1939 *prohibits* bondholders changing the bonds' principal, interest, or maturity without the bondholders' unanimous consent. Even without the Trust Indenture Act, free rider problems can impede successful renegotiation. For example, if some bondholders forgive part of their debt, the value of the remaining bond debt rises. If each bondholder is small, and thus has no effect on the outcome of the negotiations, then each will refuse to restructure its portion of the debt. I discuss these issues in detail in Section 2.

In bank restructurings the firm effectively rolls over its initial loan of B and borrows an additional $1 + qD – Y$ for the investment and to pay off the bond debt due on date 1.

It can be proven[5] that:

$$\bar{X} - 1 \geq V_D - L_D \qquad (1)$$

where V_D is the market value of the bonds in this case.

V_D is the value of the bonds conditional on investment, while L_D is their value if no investment occurs. So, the difference between the two measures the value transfer

4 Glison, John, and Lang (1990) show empirically that the existence of bond debt is the most significant determinant of whether a financially distressed firm restructures successfully out of court or files for Chapter 11 reorganization.

5 For the proof, please refer to https://decisionboundaries.com/thought-leadership/the-odyssey-of-financial-restructuring-under-the-us-bankruptcy-code/, p.6.

Continued from p.37

from the bank and shareholders to the bondholders if the firm invests. If the NPV of the project, $\bar{X} - \mathrm{I}$, is greater than this transfer, then the firm restructures its bank debt and invests.

If this transfer is positive, the firm will tend to forego positive NPV projects, those with NPV between zero and $V_D - L_D$, because the bonds act as a tax on the project discouraging investment. If it is negative, the firm may take negative NPV projects, those with NPV between $V_D - L_D$ and zero, because creditors effectively subsidize the project, encouraging investment.

This wedge is introduced because the value of the bonds conditional on investment can be greater or less than its liquidation value. If, for example, Y is close to zero, the bonds are worth almost nothing in liquidation, so bondholders benefit from the investment. By contrast, if Y is close to B+D, bondholders would get satisfied almost in full if the firm is liquidated. But, if it is not liquidated, bondholders own a risky claim which could well be below D.

This discussion suggests that there are two effects at work. On the one hand, the debt obligations tend to make investment look unattractive because existing creditors can siphon off cash from the project (Myers' (1977) "debt overhang"), which discourages investment. On the other hand, debt obligations can lead the firm to take excessive risks: the equity receives nothing if the firm is liquidated but has some value if the firm invests, even in a negative-NPV project.[6]

The maturity structure of the debt and the proportion of bank debt to total debt also matter but that discussion is outside the scope of this article.[7]

1.2. New Capital Infusions

Instead of restructuring its bank debt, the firm could try to raise new money from another bank or by issuing equity. Neither of those alternatives is as attractive as a restructuring. Similar to a restructuring, the new bank lends $I + B + qD - Y$ and receives the same date-2 payoffs. But, unlike a restructuring, some of the new money goes to pay off the existing bank debt of B at face value. We can show that the firm will be able to raise new debt financing provided that:

$$\bar{\mathrm{X}} - \mathrm{I} \geq V_D - L_D + B - L_B \qquad (2)$$

or, in other words, if the NPV of the investment exceeds the sum of the transfer to bondholders, $V_D - L_D$, and the transfer to the bank, $B - L_B$. The condition differs from that for a bank restructuring because, in a restructuring, the bank accounts for the fact that the debt is worth only $L_B < B$ in a liquidation. If the firm obtains new bank financing, the original bank receives a transfer of $B - L_B > 0$. This subsidy means that the set of investment projects that can be financed without outside debt is a strict subset of those that can be financed with a bank restructuring.

Investment is even less attractive if the firm issues equity rather than debt. The bank continues to receive a subsidy of $B - L_B$, but the transfer to bondholders increases. The bond debt conditional on investment is worth more because the date-2 portion of the debt is paid off before the equity gets anything. By contrast, when the firm issues debt, the bondholders and the new bank are on equal footing on date 2. So, the condition for investment takes the same form as inequality (2), except that V_D is greater when the firm issues new equity.

This analysis implies that the firm never issues new equity since an equity issue transfers value to bondholders which would not be transferred by a debt issue. The prediction is less clear about the choice between debt issues and a bank loan restructuring. Clearly, when inequality (1) is satisfied but inequality (2) is not, the firm will restructure its bank debt. But if both inequalities are satisfied the model has no prediction. The bank knows that if there is no restructuring the firm will issue new debt and the bank will receive B. So, in a restructuring, the bank will settle for nothing less than B. As a result, equity holders are indifferent between a debt issue and a bank debt restructuring because they must transfer B to the bank in both situations.

1.3. The Effects of Priority

So far, we have assumed that all debt has equal priority in bankruptcy. However, firms can explicitly contract for certain debts to be paid ahead of others in bankruptcy. There are two ways in which priority can affect the ability of distressed firms to raise capital in my model. First, the seniority of the existing bank debt affects what the bank would get in liquidation if it did not lend new money, thereby determining the value of the bank's next best alternative. The more junior the existing bank debt, the worse off the bank is in liquidation, so the more willing to lend. Second, the seniority of the new bank debt affects what the bank can get if it lends new money. In general, the more senior the new bank debt, the better off the bank is at any chosen interest rate. Thus, if they could, the firm and the bank would like to contract debt that is senior to the existing bonds. Of course, there are often constraints, in the form of covenants, on their ability to do so.

To see this more formally, suppose there are no seniority covenants. Then the interest rate on the new bank debt can be set at such a high level that the firm always defaults on date 2 and the senior debt gets all the date-2 cash flow X. This means that the value of the

6 See Jensen and Meckling (1978).

7 For a discussion, see https://decisionboundaries.com/thought-leadership/the-odyssey-of-financial-restructuring-under-the-us-bankruptcy-code/, p.7.

bonds conditional on new senior lending is just qD and bondholders receive their date-1 payment. The value of the bonds if the firm is liquidated is L_D, assuming, as before, that the existing bank debt and bonds have equal priority. Based on the previous section we know that the project's NPV must exceed the net subsidy to bondholders resulting from investment. So, the bank will be willing to lend, provided that:

$$\bar{X} - I \geq qD - L_D \qquad (3)$$

The right-hand side of inequality (3) is strictly less than the right-hand side of inequality (1), since $qD < V_D$; the firm is more inclined to invest when there are no seniority covenants.[8]

This analysis can tell us something about the interaction between maturity structure and seniority covenants. If the bond debt has a relatively short maturity (q near 1), the firm is likely to underinvest. In this case, a seniority covenant tends to worsen the problem, making it more difficult for the firm to raise capital. If the firm leaves out the covenant, we would expect to see the bank lend new money that is senior to the old bonds. The ability to issue such debt can counteract the efficiency created by the short maturity of the bond debt. In contrast, if the bonds have a relatively long maturity, the firm is more likely to overinvest. Therefore, if the capital structure is chosen to minimize the costs of financial distress, we would expect the long-term bond debt to contain seniority covenants in the indenture and short-term bond debt to omit such covenants.

This framework can also tell us something about the interaction between the bond debt maturity and the priority of the existing debt. Suppose that there is no seniority covenant. Then, if the original bonds are pari passu with the bank, the investment condition is given by inequality (3). But if the initial bank debt is senior to the bond debt, the condition becomes:

$$\bar{X} - I \geq qD - max(Y - B, 0) \qquad (4)$$

because the value of the junior bond debt is now $max(Y - B, 0)$. Since this is less than $L_D \equiv [D/(B + D)]Y$, the value of the bond debt if it is pari passu with the old bank debt, the firm is now less likely to invest; the bank does better in liquidation, so financing new investment is less attractive.

The shorter the maturity of the bonds, the more likely the firm is to underinvest. Therefore, the model suggests that when the bonds are relatively short term, existing senior bank debt is likely to worsen the underinvestment problem. But when the bonds are long term, the seniority of the bank debt can be a useful way of curbing the overinvestment problem. If the costs of financial distress drive capital structure choices, my model predicts that the bank debt will be senior if the bonds are long term and junior if short term.

Although the model predicts that the bank debt will be junior if the bonds are short term, it is difficult to make short-term bank debt junior in practice. To see this, suppose that if the firm does not invest and is not liquidated at date 1, it nevertheless has positive, stochastic cash flows at date 2. Thus, unlike the model above, if the firm pays off its debts at date 1, the value of the equity is positive even if the firm does not invest. The firm has three alternatives: invest, continue without investing, or be liquidated.

Now suppose that $Y \geq qD + B$ so that it is feasible for the firm to meet its date-1 obligations and continue in operations without investing. The value of the bank debt is B, which is what it is worth in liquidation if the bank debt is senior. The bank refuses to provide new funds for investment but demands a payment of B on date 1. This is more than $max(Y - D, 0)$, the bank's payoff is liquidated, and the bank debt is junior to the bonds. Therefore, even though the bank debt is contractually junior to the bonds, the bank acts as their senior. This makes the bank reluctant to lend new money, a more efficient outcome. So, in this model, if q is small enough that $Y > qD + B$, the bank acts as a senior lender. But, if q is very close to one, it is possible to induce the bank to subordinate itself to the bond debt.

2. DISTRESSED EXCHANGE OFFERS FOR BOND DEBT

So far, I have assumed that it is impossible to renegotiate with bondholders. This assumption is not too far off the mark; the Trust Indenture Act's prohibitions on changes in the amount or timing of bond debt payments forces bond restructurings to take the form of exchange offers.[9] Firms offer cash and/or a package of debt and equity securities, with the offer typically contingent on the acceptance of a specified fraction of the debt.

In this section, we analyze the extent to which this limited form of renegotiation affects the inefficiencies discussed in the previous section. The key assumption of the model is that each bondholder's stake is small enough that they ignore the effect of their tender decision on both the firm's investment decision and the value of the firms' securities. This assumption is unrealistically strong for firms with a large proportion of their bonds held by just a few institutional investors, an admittedly common situation. I make this assumption to

8 Stultz and Johnson (1985) develop this point in a model where the ability to use secured debt for new borrowing mitigates the Myers (1977) underinvestment problem. Berkovitch and Kim (1990) analyze how the priority structure affects investment efficiency under both symmetric and asymmetric information.

9 There are similarities between corporate debt exchange offers and buybacks of emerging markets debt. See Froot (1989) and Bulow and Rogoff (1989) for analyses of emerging markets debt exchanges.

Continued from p.39

highlight the problems that arise when creditors cannot fully coordinate their actions.

I proceed in two stages. First, I analyze the profitability of exchanges assuming that the firm has ample cash to finance the investment even without a debt restructuring. I will show that an exchange is profitable only if the debt is exchanged for cash or for debt that has higher priority than the original bonds. Although this analysis has no efficiency implications – the firm invests even without an exchange – it is helpful in answering the second, more interesting, question: when can an exchange reduce cash obligations and enable the firm to invest? I will show that the bank is generally better off if the firm can exchange its bonds, that investment incentives are unaffected by the ability to exchange bonds in most circumstances, and that the ability to exchange is not equivalent to efficient renegotiation of bond debt.

2.1. Exchanges Assuming No Cash Shortage

In this subsection I assume that, while the firm is in financial distress, it does not need an exchange or a bank concession in order to invest and meet its date-1 obligations: $Y > I + B + qD$. I first consider an exchange for debt due at date 2 with a face value of p for each dollar in face value of the existing bond debt. Let X_b be the breakeven value of X, so the firm defaults at date 2 for all $X < X_b$. Shareholders receive nothing if $X < X_b$ and receive $X - X_b$ otherwise. Thus, an exchange is profitable if and only if it lowers X_b.

Let β denote the fraction of bond debt the firm exchanges. Without an exchange, $X_b = I + D + B - Y$. By contrast, if the firm exchanges, it owes the nontendering bondholders $(1-\beta)D$ and the tendering bondholders βD, so $X_b = I + (1-\beta) D + \beta pD + B - Y$. Here, X_b is decreasing in β if and only if $p < 1$; i.e., the firm can exchange a dollar of old debt for less than a dollar in new debt. So, if $p < 1$, an exchange is profitable and, if $p > 1$, an exchange is unprofitable.

Proposition 1: ***It is unprofitable to offer an exchange for new debt with equal priority to the old debt.***[10]

The exchange is unprofitable because of a classic holdout problem.[11] If other bondholders tender, the value of the existing bonds rises, creating an incentive to hold out. To see this, consider the decision facing the holder of $1 of bonds who is offered $1 of the new bonds ($p = 1$) due at date 2.[12] Will the holdout have an incentive to tender, assuming that all the other bondholders tender? If so, then it is an equilibrium for all bondholders to tender.

The answer depends on the payoffs of the two bonds when the firm is in default at date 2. If the firm does not default at date 2, the payoffs are quite different. Those who tender receive their pro rata share of the firm at date 2, $(X + Y - I - B)/D$, but the holdout receives q at date 1 and receives a pro rata share of the firm at date 2, $(1 - q)(X + Y - I - B)/D$. Since $(X + Y - I - B)/D > 1$, the bondholder is better off holding out.

The holdout is better off because the earlier payment on the old bonds is essentially senior to the new ones. Tendering bondholders share ratably in a risky date-2 claim. But, by holding out, the bondholder receives a safe date-1 payment while still sharing pro rata in the date-2 portion of payoffs.

This logic rests crucially on the assumption that the bondholders do not act collectively. If they could the question becomes: are we all better off if we all tender than if we all hold out? This is quite different from the original question: am I better off if I tender than if I hold out assuming everyone else tenders? In the collective case, if everyone tenders then the payoff is again $(X + Y - I - B)/D$ when the firm defaults. But if no one tenders the payoff is q at date 1 and $(X + Y - I - B - qD)/D$ at date 2. This is equal to the payoff from tendering, so bondholders as a group are indifferent between the two options when $p = 1$.

The holdout problem is even more pronounced if the firm offers to exchange junior bonds or equity for the old bonds. As before, holdouts are senior in that some of their claim is paid at date 1 before the uncertainty is realized and tendering bondholders are paid. In addition, holdouts have seniority at date 2 since the new security is subordinated debt or equity. If all bondholders tender, a holdout's claim would be risk-free since the holdout gets q at date 1, and the $1 - q$ that is owed at date 2 is senior to the claims of all

10 For the proof, see https://decisionboundaries.com/thought-leadership/the-odyssey-of-financial-restructuring-under-the-us-bankruptcy-code/, p.12

11 Roe (1987) contains the first discussion of this holdout problem.

12 We assume that $1 is a negligible portion of the outstanding bonds.

tendering bondholders, making it risk-free as well. Thus, a corollary of Proposition 1 is that exchange offers for subordinated debt or equity are also unprofitable.

Quite the opposite happens if the firm can offer a more senior bond in exchange for the old one. These types of exchanges are quite common.

Proposition 2: ***It is profitable to offer an exchange for new bonds which are senior to the old bonds.***[13]

There are two competing effects at work. Again, the difference in the payoffs from tendering and holding out depends on the payoffs of the old and new bonds when the firm is in default at date 2. As before, consider the decision facing the holder of $1 of bonds, assuming that all others tender when $p = 1$. On the one hand, the holdout's date-2 claim is worthless when the firm defaults. Since the new bonds are senior, each new bondholder is paid $(X + Y - I - B)/D$ and there are insufficient funds to pay the old junior bondholder. On the other hand, the portion q of the holdout's claim is paid at date 1, making it effectively senior to the new bonds. On the whole, given my assumption that $X > 0$ and $Y > I + B + qD$, the increased seniority at date 2 is worth more than the earlier maturity of the q portion of the claim. Instead of a holdout problem there is a *hold-in* problem; bondholders would tender for $p < 1$ despite the fact that they're worse-off as a group.

The hold-in problem is more severe when the bond debt is relatively long-term. Very short maturity debt is paid almost in full at date 1. So only a small portion of the debt can be leapfrogged in the capital structure. The short maturity of the bonds effectively gives them a degree of seniority that cannot be negated by a senior bond issue. Indeed, one can show that as the bonds become shorter-term p increases, and exchanges become less attractive to the firm.[14]

I have shown that the firm prefers exchanges for senior debt to exchanges for pari passu or subordinated debt. Although many issues have seniority covenants these types of exchanges are still common because indentures typically allow for the modification or elimination of covenants by some specified super-majority vote.[15] The exchange is then made on an *exit consent* in which the required super-majority votes to strip the old bonds of their seniority and maybe other covenants. Thus, the act of tendering consists of two actions: first to strip the old bonds of their covenant protection, and second an acceptance of the exchange for the now legally-issued senior bonds.[16]

Proposition 3: ***It is profitable to offer an exchange for cash.***[17]

Exchange offers for cash are profitable for similar reasons that senior bond exchanges are profitable. As more bondholders tender, more cash is paid out at date 1, reducing the value of the old bonds at date 2. Tendering bondholders are paid cash for the $1 - q$ portion of their claim at date 1. Since this is paid before a holdout receives payment on the $1 - q$ portion of their claim, the tendering bondholders are effectively senior to the nontendering ones. As a result, the date-2 portion of the old debt claim is less valuable. Faced with this hold-in problem, old bondholders are willing to tender at a low price.

Recall that throughout the analysis we have assumed that the firm does not have a cash shortage. If the firm does not have sufficient cash, it will use all of its cash in excess of $B + I$ to buy back debt. It is important to note that the firm would not find it profitable to issue equity or debt (with equal or junior priority to the old debt) in order to buy back bonds. The outside capital would not be senior to the untendered debt, so the required return on the outside capital would more than negate the savings on the exchange offer.

2.2. Exchanges When There Is a Cash Shortage

The above analysis assumes that the firm does not need to restructure its debt in order to invest at date 1. Exchanges have no effect on efficiency; they just redistribute value from bondholders to shareholders. We now suppose that the firm needs a concession from either the bank or the bondholders to invest at date 1. We start by assuming that $I + B < Y < I + B + qD$; the firm needs some concession to invest but has enough cash to pay off the bank and invest.

I explicitly model bank renegotiations and bond exchanges. The firm approaches the bank asking for a concession. It makes a take-it-or-leave-it offer to postpone some or all of B until date 2, perhaps along with some debt forgiveness. The firm has the option of offering an exchange to bondholders. This timing captures the idea that a firm is unable to commit to the bank not to pursue a profitable exchange offer.

Suppose the bank refuses to give the firm a concession. At this point, the firm can propose to exchange the bonds for more senior ones. I assume for the moment that there are no seniority covenants. Because the new

13 For the proof, see https://decisionboundaries.com/thought-leadership/the-odyssey-of-financial-restructuring-under-the-us-bankruptcy-code/, p.13-15

14 The property of shorter maturity debt that makes the hold-in problem relevant is that a greater fraction of promised payments comes after the resolution of uncertain cash flows. Extending the maturity from date 1 to date 1.5 would have no effect if there was no chance of insolvency before date 2.

15 Since the vote does not affect the amount or timing of the payments, it is not prohibited by the Trust Indenture Act.

16 The enforceability of exit consents remained legally unclear until January 2017 when, in a 2-2 decision, the Second Circuit reversed the court's ruling in *Marblegate*, holding that Section 316(b) prohibits only non-consensual amendments to an indenture's core payment terms.

17 For the proof, see https://decisionboundaries.com/thought-leadership/the-odyssey-of-financial-restructuring-under-the-us-bankruptcy-code/, p.16.

Continued from p.41

bonds are senior to the old, the firm can set p, the face value of the new bonds, so that it is paid of all the date-2 cash flows. Thus, the maximum value of a unit of the new bond is $(\bar{X} - Y - I - B)/D$, provided that the firm buys back all the bonds.[18] If a bondholder does not tender, they receive only the date-1 payment, q. So, if $(\bar{X} + Y - I - B)/D > q$ or, equivalently, if:

$$\bar{X} - I \geq B + qD - Y \qquad (5)$$

an exchange offer for senior debt is feasible. In this case, the firm will want to buy back its bonds because the alternative is liquidation in which case shareholders get nothing.

Now consider the first stage of the model in which the firm approaches the bank to receive a concession. The bank knows that if it turns down the firm's offer, the firm will be able to exchange its bonds provided that inequality (5) is satisfied. In this case, the bank receives B. So, the bank will turn down any offer which has an expected value less than B.

It is possible that the firm might prefer to renegotiate with the bank to receive some date-1 debt relief rather than restructure its bonds. As long as it can defer enough of its bank debt to pay off the date-1 portion of the bonds, the strategy is feasible. So, suppose that the bank extends the maturity of its loan but requires the firm to pay B' at date 2. Assume for the moment that there is no seniority covenant in the bonds; B' can be senior to the date-2 payments on the bonds. In addition, if $Y < I + qD$ the bank has to provide new money in the amount of $I + qD - Y$. If $Y > I + qD$, the remaining cash of $Y - I - qD$ is available to pay off the bank at date 1. Since the new bank debt is senior, the minimum B' that the bank would accept satisfies:

$$\int_0^{B'} Xf(X)dX + \int_{B'}^{\infty} B' f(X)dX + Y - I - qD = B \qquad (6)$$

Proposition 4: *If $I + B < Y < I + B + qD$ and no contractual restrictions on issuing senior debt exist, the firm prefers a debt exchange to a bank restructuring.*[19]

In both an exchange offer and a bank restructuring, the bank ends up with a claim worth B. However, the exchange is less costly because the firm can take advantage of the hold-in problem; by exchanging for senior debt and leaving holdouts with a junior security, the firm induces bondholders to tender for a claim that the bank would not accept.

Now suppose instead that $\bar{X} - I < B + qD - Y$, so inequality (5) is violated. In this case, an exchange offer is not feasible without a bank concession. Thus, if the bank turns down the firm's take-it-or-leave-it offer, the firm is liquidated, and the bank gets L_B. This means that the firm can offer the bank a claim worth L_B and the bank will accept the offer. Also note that when $Y < I + B$ the bank will also accept an offer of L_B because, without such a writedown, the firm would be unable to invest at date 1.

Given an offer worth L_B and the bank's acceptance, the firm may be able to exchange its bonds. In the exchange, the maximum value of each new senior bond is $(X + Y - I - L_B)/D$, while each untendered bond is worth because there will be no funds available at date 2 to pay off the untendered subordinated bonds. Thus, the firm can complete an exchange provided that:

$$\bar{X} - I \geq qD - L_D \qquad (7)$$

Note that if the exchange is successful, the firm will be able to make the date-1 bank payment of L_B and invest I, since I have assumed that $Y > I + B > I + L_B$. If (5) is violated, however, the firm does not offer to exchange and is therefore liquidated at date 1.

There will tend to be underinvestment if the current portion of the total bond debt, qD, exceeds the liquidation value, L_D, and overinvestment if the current portion is less than the liquidation value. The minimum transfer to bondholders from investment is the best that they can be given with investment, qD, minus what they get in liquidation, L_B.

Thus, exchange offers can be profitable to the firm if it is able to exchange the bonds for more senior securities or if it can use cash to buy back the bonds for cash. But note that the ability to exchange does nothing to improve the efficiency of investment decisions of financially distressed firms if there is no seniority covenant in the bonds; it just affects who bears the cost of financial distress.[20]

We summarize these results in the following proposition:

Proposition 5: *If the firm has insufficient cash to invest, there are three possible outcomes. If the NPV of the investment, $\bar{X} - I$, is sufficiently large, the bank is paid in full, the bondholders accept an exchange, and the firm invests. For intermediate NPVs, the bank debt is forgiven to L_B, the bondholders accept an exchange, and the firm invests. If the NPV is sufficiently small,*

18 The proof that the firm will wish to buy back all the bonds applies to this case as well.

19 For the proof, see https://decisionboundaries.com/thought-leadership/the-odyssey-of-financial-restructuring-under-the-us-bankruptcy-code/, p.18-19.

20 Although the basic idea that exchange offers give limited possibilities to increase investment incentives is quite robust, the strong result of no effect is somewhat model-specific. For example, if management were only willing to invest if equity value exceeded some threshold level, the concessions from bondholders would increase the ability to invest.

the firm is liquidated and does not invest. The possibility of a bond exchange does not alter investment when there are no seniority covenants.

The analysis assumes that there is no seniority covenant in the bonds. As discussed in Section 2.1, however, firms can get around seniority covenants through exit consents. The condition for investment continues to be inequality (7).

Thus, exchange offers combined with exit consents can be used to strip seniority covenants that would otherwise prevent a bond exchange and constrain investment; in this case exchange offers have real investment effects. But the firm can go too far; exit consents and exchange offers can reduce the value of the bonds so much that the firm actually overinvests.

3. REORGANIZATION LAW AND INVESTMENT

In this section, I focus on the three aspects of Chapter 11 that I believe are fundamental to understanding its effect on investment decisions: the automatic stay, the voting rules, and the maintenance of equity value.

3.1. The Automatic Stay

The automatic stay increases the firm's incentive to invest. To illustrate, assume that the firm files and that the automatic stay is the only feature of Chapter 11. Bondholders' claims are deferred until date 2, at which time they are either paid in full or share the firm's assets with the bank if the firm is unable to make its debt payment.

Effectively, the automatic stay extends the maturity of the bonds from $q > 0$ to $q = 0$. As we saw above, the firm has a greater incentive to invest when the debt has longer maturity. There are two separate effects. First, the firm may now have the cash needed for investment, so it may not have to borrow at date 1: Y may be less than $I + B + qD$ but greater than $I + B$. And even if the firm must borrow ($Y < I + B$), investment is more attractive because the automatic stay forces bondholders to bear more risk. Naturally, if this risk is too elevated, bondholders will object and seek the court's disapproval of the proposed investment. The above analysis assumes that the new money comes from the bank but, for practical purposes it would virtually always come from DIP financing. Thus, the new money's super-seniority leads to even greater investment incentives, which may lead potentially harmed bondholders to object to the approval of the DIP financing. Second, the automatic stay affects the bank's incentive to lend outside of bankruptcy. Since the subsidy to bondholders is reduced by the automatic stay, the bank and the firm have an incentive to restructure inside bankruptcy rather than outside. If the deadweight losses associated with bankruptcy are less than the reduction of the net subsidy to bondholders, firms will file even when they could have successfully reorganized out of court. In this case, Chapter 11 can reduce efficiency since investment is unchanged by the filing but the firm is willing to incur a deadweight cost to extract value from bondholders.[21]

3.2. Chapter 11 Voting

Investment inefficiencies arise in my model because of the inability to negotiate directly with bondholders. The underlying problem is that, unlike the bank, bondholders do not take into account their effect on the firm's investment policy.

Chapter 11 voting procedures can get around this problem, since plans of reorganization must be approved by all creditor cases and the court.

To see how the voting procedure affects restructuring and investment, suppose that the firm files and immediately proposes a POR that gives bondholders a claim on the reorganized company which, conditional on investment, is worth $L_D + \epsilon$, or just a little above the bondholders' recovery under liquidation. Furthermore, suppose that this is a take-it-or-leave-it offer and that if the plan is rejected the firm is liquidated. In deciding how to vote, a bondholder compares their return if the plan is successful with their recovery if it is not. If the plan is successful, all bondholders share $L_D + \epsilon$, and L_D otherwise. Thus, they all support the plan and the result is efficient investment.

Why does the voting mechanism work while an exchange offer does not? The answer is that the voting procedure does not allow bondholders to be treated differently depending on their vote, whereas tendering and nontendering bondholders are treated differently. In an exchange offer, a bondholder compares the value of the new claim with the value of the old claim *conditional on success* of the exchange offer because it is possible for the bondholder to retain their old claim if the tender offer is successful. But if the conditions for acceptance under the voting procedure are met, those who do not vote for the plan are compelled to accept

21 This implicitly assumes that a firm which defaults must file for bankruptcy. However, in this situation, if bankruptcy proceedings are costly, bondholders may choose not to force the firm into bankruptcy despite default. They know that bankruptcy results in the imposition of the automatic stay which may delay payment as much as default. In this case, the automatic stay can effectively be achieved without an actual filing.

Continued from p.43

the POR.[22] Thus, the voting procedure can be used to internalize the effects of the investment decision and get around the holdout and hold-in problems, thereby improving investment efficiency.

Thus, the voting rule can help the firm obtain concessions from bondholders. Even if the bank is willing to lend outside of Chapter 11, the firm may be better off filing and taking advantage of the voting procedure to obtain a transfer from bondholders. This is likely to be the best strategy when concessions are large. Thus, if the bonds are relatively short term, senior, or protected by seniority covenants, they are generally more valuable outside of Chapter 11 than inside. In these cases, we would expect firms to file.

3.3. Maintenance of Equity Value

One of the most salient features of Chapter 11 is that shareholders typically retain a stake in the firm, even though creditors are not paid in full. This is a result of a number of procedural rules on the formation and acceptance of a POR, including the exclusivity period and the cramdown.

The fact that the equity retains some value in most reorganizations even if creditors are not paid in full has important implications for behavior outside of bankruptcy. In my model the firm has only two alternatives: to obtain new funds and invest or go bankrupt and liquidate. In practice, however, there's a third option: to file, invoke the automatic stay, and maintain control continuing operations without new funds for investment.

To develop this idea, I consider the following extension of my Section 1 model. Suppose that if the firm continues in operation without investing, it receives a date-2 payoff of X_C (with mean $\overline{X_C}$) in addition to the date-1 liquidation value Y. In order to focus on a continuation threat rather than a value-maximizing strategy, I assume that continuation is inefficient; total value is higher if the firm liquidates than if it continues without investment ($\overline{X_C} < 0$). The value of the bonds if the firm follows the continuation strategy is V_D^c. The bank and the firm together get $\overline{X_C} + Y - V_D^c$ if the firm continues without investing. If the firm invests, their combined payoff, as before, is $\bar{X} - I + Y - V_D$. Finally, if the firm is liquidated, their combined payoff is L_B, with the equity getting nothing.

Suppose that, among the three alternatives, liquidation is the most attractive to the bank and equity combined, so that:

$$L_B > max(\bar{X} - I + Y - V_D, \overline{X_c} + Y - V_D^c) \qquad (8)$$

Then, absent Chapter 11 reorganization, the firm will be liquidated.

But, now suppose that the firm can file for Chapter 11, invoke the automatic stay, defer debt payments until date 2, and retain control. This is collectively inefficient for the bank and shareholders since $L_B > \overline{X_c} + Y - V_D^c$. The bank would like to pay the firm to liquidate rather than continue, but it cannot. Any payment from the bank to the firm cannot go to shareholders before it goes to the firm's other creditors for it not to be considered a fraudulent conveyance. Given this constraint, the firm's threat is credible; shareholders are better off continuing in operation in the hope that X_C is sufficient to pay creditors at date 2, thereby giving the equity a positive return.

So, the bank has two options. It can let the firm file, or it can provide new money for investment. If the joint returns from investing are larger than those from continuation in Chapter 11, i.e.:

$$\bar{X} - I - V_D \geq \overline{X_c} - V_D^c \qquad (9)$$

the bank will lend money for investment. If not, the firm will file.

The option to file can increase efficiency. If (9) is satisfied, the firm will be more likely to invest. This is efficient if $V_D - L_B > 0$, the case in which the firm underinvests without filing. If, however, $V_D - L_D < 0$, the firm would otherwise overinvest and the filing only aggravates the inefficiency. By contrast, if (9) is violated, Chapter 11 is always inefficient since the firm continues rather than liquidating, and $\overline{X_C} < 0 < Y$.

We can thus draw the following inferences. First, when the bonds are short term, the bank debt is senior, and the bonds have seniority covenants, underinvestment is likely to be a problem and Chapter 11 can be helpful. Second, when investment is risky relative to continuation, investment tends to be more attractive to the bank and equity because bonds are worth less. In this case, the likely effect of a filing is to encourage investment rather than to give the firm an easy way of avoiding efficient liquidation.

CONCLUSION

By focusing on the distressed firm's investment process, this article develops a single decision model for the distressed firm, its banks and its bondholders.

The model sheds light on out-of-court decisions (e.g., tendering, restructuring, new money, etc.), in-court decisions (e.g. voting, objecting, etc.), and indeed the filing decision itself.

22 A dissenting member of an approving class who gets less than the liquidation value of their claim can object to the plan. If successful, this will cause the plan to be defeated. This does not accomplish the same thing as holding out in a successful exchange offer. In that situation, other creditors make concessions while the holdout creditor's claim is unaffected.

We hope that this framework's single-model nature will result in more efficient resolutions of financial distress situations by, among other things, avoiding excessive bondholder oppression and value-destroying filings, setting parameters for bank restructuring and new lending, and identifying when a filing is likely to increase value.

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DEFINED BENEFIT PENSION ISSUES EXPECTED IN THE NEXT WAVE OF BANKRUPTCIES[1,2]

ISRAEL GOLDOWITZ
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INTRODUCTION

In the last recession, corporate bankruptcy filings spiked, to about 60,000 per year in 2008-2010 and more than 40,000 per year in 2011 and 2012.[3] Among the debtors were sponsors of traditional defined benefit pension plans, including American Airlines, General Motors, and Nortel. Others participated in multiemployer defined benefit plans, such as A&P, Hostess, and Patriot Coal.

In some cases, the pensions rode through bankruptcy and were continued by the reorganized company. In others, however, the pension plan was terminated, or the debtor withdrew from the plan, and the resulting claims were resolved in the bankruptcy.

As this article is written, the economy is reeling from the effects of the COVID-19 virus. Unemployment is at levels not seen since 2008, the stock market is well off its highs, and several major companies have filed or are planning for bankruptcy. Bankruptcy treatment often influences out-of-court restructurings. So, it's important for insolvency and restructuring professionals to understand defined benefit pension issues in business bankruptcies.

OVERVIEW OF FEDERAL PENSION LAW

The Employee Retirement Income Security Act of 1974, as amended ("ERISA"), governs private-sector employee benefit plans.[4] ERISA sets minimum standards for participation, vesting, benefit accrual, funding, fiduciary conduct, and reporting and disclosure. ERISA also established the Pension Benefit Guaranty Corporation ("PBGC") to insure benefits under failed defined benefit plans.[5]

A defined benefit plan is one that promises a lifetime benefit based on a formula.[6] For salaried employees, the benefit is usually expressed as a percentage of pay times service, e.g., 1.25% of "high-three" pay per year of service (or $37,500 per year if an employee's highest three years' pay averaged $150,000 and she had 20 years of service). For hourly employees, the benefit is often a flat amount per year of service or a percentage of career-long contributions.

A pension is typically payable at a stated retirement age, e.g., 62. It may be paid earlier, with or without a reduction for actuarial equivalency. For instance, if an employee has 70 age and service points, he may be paid the same amount at age 55 as at age 62. In that case, the early retirement benefit is "subsidized."

A defined benefit plan promises a fixed benefit regardless of market performance. Thus, investment risk is on the employer. But Congress did not require employers to fully fund benefits. So the employee has the default risk.[7]

History of Federal Regulation

Pensions were originally a workforce management tool.[8] Pay increases as workers advance, and workers wear out as they age, especially in industrial jobs. By giving older workers an incentive to retire and new hires an incentive to stay, pensions help to manage turnover.

State courts initially saw pensions as gratuities, and unenforceable.[9] A few courts saw a pension promise as an offer of a unilateral contract to a class of persons. For example, if an employer promises anyone who works 20 years and reaches age 65 a pension of one-third of her final pay for life, any member of the class who meets these conditions would have a contractual right to a pension.[10]

But judge-made law was a patchwork, and worker rights mainly developed in other forums. For instance, the Internal Revenue Service ("IRS") took the view that employees would vest in plan assets when a plan

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1 The McClatchy Company filed for Chapter 11 bankruptcy on February 13, 2020. Mr. Goldowitz represents a retiree association in that case. The views expressed are his own. Public filings are used for illustrative purposes.

2 An abbreviated version of this article appeared as "Employee Benefits Issues Prominent in Restructuring and Bankruptcy Cases," in BloombergBNA Compensation Planning Journal, January 3, 2020. Other portions appeared in "Funding of Public Sector Pension Plans: What Can be Learned from the Private Sector?," 23 University of Connecticut Insurance Law Journal 143 (2017).

3 https://www.uscourts.gov/news/2013/02/04/bankruptcy-filings-decline-calendar-year-2012 (published February 4, 2013). Since 2015, filings have declined from 26,000 to 22,000. https://www.uscourts.gov/news/2019/04/22/bankruptcy-filings-continue-decline (published April 22, 2019).

4 29 U.S.C. §§ 1001-1453.

5 29 U.S.C. §§ 1301-1453.

6 29 USC § 1002(35).

7 *See, e.g., Hughes Aircraft Co. v. Jacobson*, 525 U.S. 432, 439-40 (1999).

8 Lawrence A. Frolik and Kathryn L. Moore, *Law of Employee Pension and Welfare Benefits* 7 (3d ed. 2012) (citing Merton C. Bernstein, *The Future of Private Pensions* 10 (1964)).

9 *E.g., McNevin v. Solvay Process Co.,* 32 A.D. 610 (N.Y. App. Div. 1898), *aff'd per curiam*, 60 N.E. 1115 (N.Y. 1901).

10 *See Wickstrom v. Vern E. Alden Co.*, 240 N.E. 2d 401 (Ill. App. Ct. 1968) (early retirement offer), cited in 1-3 Corbin on Contracts § 3.16 (2006). An example well known to lawyers is *Carlill v. Carbolic Smoke Ball Company,* 1 QB 256 (1893). A vendor put an ad in a newspaper saying that anyone who bought this contraption and inhaled its vapors and still contracted the flu would be paid 100 pounds. The court held that this was an offer to a class and that any member of the class who met the conditions had accepted the offer and held an enforceable right to payment.

terminates (or when a major downsizing is deemed a termination for affected employees).[11] In 1948, the National Labor Relations Board held that pensions are among the terms and conditions of employment and therefore a mandatory subject of collective bargaining.[12]

The Labor-Management Relations Act, 1947, required collectively bargained multiemployer plans' assets to be held in trust by joint labor-management boards, leading to limited judicial review.[13] In 1958, Congress enacted the Welfare and Pension Plans Disclosure Act,[14] which required all employee benefit plans to file an annual report with the Department of Labor. But there was no comprehensive federal law until ERISA.

ERISA's Minimum Standards

ERISA's minimum standards codify an understanding that pensions are deferred compensation for services rendered.[15] Among other things, ERISA:

- requires that benefits vest within a reasonable period;
- provides that accrued benefits generally cannot be reduced;
- requires that defined benefit plans be responsibly funded;
- imposes minimum standards of prudence and loyalty on plan fiduciaries;
- provides for federal insurance of defined benefit pension plans; and
- broadly preempts State law as it relates to employee benefit plans.[16]

MINIMUM FUNDING STANDARDS

ERISA does not require that benefits be fully funded. Rather, it allows a funding shortfall to be amortized over a period of years. ERISA's minimum standards are found in the Labor title of the U.S. Code (Title 29) and in the Internal Revenue Code (Title 26). Treasury/IRS has primary authority over the funding rules.[17]

Single-Employer Plans

A plan sponsor must make an annual contribution. The plan actuary will first calculate the "funding target," or the present value of plan benefits at the beginning of the year. From the funding target, she will subtract the value of plan assets, to derive the "shortfall." Next, she will set up a schedule to amortize the shortfall over seven years, netting out unamortized charges from prior years, to derive the "shortfall amortization charge."

The actuary will also calculate "normal cost," the present value of benefits expected to be earned in the year plus the year's estimated expenses.[18]

Finally, the actuary will add the shortfall amortization charge and normal cost. The sum is the year's required contribution.

Actuarial present value is highly dependent on the interest and mortality assumptions. The interest assumption is based on an average of yields on high-quality corporate bonds, using a yield curve (or segments of the curve) to fit maturity to expected benefit payments. Mortality is to be prescribed by the Treasury Department at least once every ten years.[19] Mortality is currently based on the RP-2014 table (with improvements).[20]

Contributions are generally due in quarterly installments, 15 days after the close of the quarter. Any deficiency must be paid off in a "catch-up" payment no later than 8-1/2 months after the close of the year. For instance, contributions for the 2019 year are due April 15, July 15, and October 15, 2019, and January 15, 2020, with the catch-up payment due September 15, 2020.[21]

A plan sponsor may elect to create a prefunding balance if it contributes more than the minimum required. It may then apply the prefunding balance in lieu of cash contributions.[22]

11 Isidore Goodman, *Developing Pension and Profit-Sharing Requisites*, 13 Santa Clara L. Rev. 1, 20-21 (1972). *See In re Gulf Pension Litig.*, 764 F. Supp. 1149 (S.D. Tex. 1991).

12 *Inland Steel Co. v. NLRB*, 170 F.2d 247 (7th Cir. 1948); *see* 29 U.S.C § 158(a)(5).

13 29 U.S.C. § 186(c)(5); *see Danti v. Lewis*, 312 F.2d 345, 348 n.3 (D.C. Cir. 1962) ("[the] authorities are divided as to whether an applicant for a pension has a contractual interest in the Fund as a third party beneficiary to the Wage Agreement, or whether his interest is merely equitable and conditioned on meeting the eligibility requirements reasonably established by the Trustees.").

14 Pub. L. No. 85-836, 72 Stat. 997 (1958).

15 29 U.S.C. §§ 1001(a), 1001(b) (". . .the continued well-being and security of millions of employees and their dependents are directly affected by [employee benefit] plans . . . .[ERISA's declared policy is to] protect interstate commerce and the interests of participants in employee benefit plans and their beneficiaries . . . .").

16 29 U.S.C. §§ 1053-54, 1082-85, 1104, 1114(a).

17 Reorganization Plan No. 4 of 1978, *reprinted* in 43 Fed. Reg. 47,713 (Oct. 17, 1978).

18 26 U.S.C. § 430(a)-(c). *See* 29 U.S.C. §§ 1133-1135; Lynn A. Cook & James E. Holland, Jr., 371-6TH U.S. Income: Employee Plans—Deductions, Contributions and Funding, Tax Mgmt. Port. at A-113-75 (2015).

19 26 U.S.C. § 430(h)(2), (3).

20 Notice 2018-02, *Updated Mortality Improvement Rates and Static Mortality Tables for Defined Benefit Pension Plans for 2019*, https://www.irs.gov/pub/irs-drop/n-18-02.pdf.

21 26 U.S.C. § 430(j). The Coronavirus Aid, Relief, and Economic Security Act permits employers to defer contributions due in 2020 until January 1, 2021. Pub. No. 116-136, § 3608, 116 Stat. ___,___ (2021).

22 26 U.S.C. § 430(f)(3).

Continued from p.47

A sponsor experiencing "temporary substantial business hardship" may apply to IRS for a waiver of the year's contribution. The waived amount then becomes an additional amortization charge in the next five years. IRS may require that security be given to the plan, enforceable by PBGC.[23]

Additional funding is required if a plan is "at risk," less than 80% funded. At-risk plans cannot increase benefits; they must make the most conservative assumptions about early retirement and benefit form; and their funding is subject to a 4% surcharge. A pre-funding balance cannot be used instead of cash contributions if the plan is at risk.[24]

A liquidity shortfall contribution is required to the extent a plan's liquid assets do not equal three times its annual disbursements.[25]

If the annual contribution is not made by the catch-up date, an "accumulated funding deficiency" results, and an excise tax of 10% of the deficiency is imposed. The tax increases to 100% if the deficiency is not timely corrected.[26]

If the unpaid balance exceeds one million dollars, a lien arises in favor of the plan on all property of the controlled group.[27] PBGC has sole authority to perfect and enforce the lien.[28]

Multiemployer Plans

Contributions are set by collective bargaining agreements, usually at an hourly rate. The hourly rate is calibrated so that, when multiplied by an estimate of hours, shifts, or other agreed units, contributions will meet the statutory minimum.

The minimum is set by a "funding standard account," to which specified charges and credits are made each year. If the total charges are greater than the total credits (including contributions), there is a funding deficiency. In computing the charges and credits, the plan's actuary must use assumptions that are individually reasonable and that in combination represent her best estimate of future experience.[29]

A plan can seek a funding waiver if 10% of the employers would otherwise suffer substantial business hardship, with the waived amount amortized over 15 years. A plan can also seek an extension of the amortization period from 15 to 20 years if it has adopted a funding improvement plan (see below), or to 25 years if necessary to avoid plan termination or a substantial benefit curtailment.[30]

Multiemployer plans in endangered or critical status (less than 80% or 65% funded, respectively) must also adopt funding improvement plans ("FIP") or rehabilitation plans ("RP"). An endangered or "yellow zone" plan's FIP must project a one-third funding improvement over ten years. The FIP typically contains a negotiated schedule of contribution increases and a default schedule if no agreement is reached. The default schedule typically requires decreases in benefit accruals as well.[31]

A critical or "red zone" plan's RP must project emergence from the red zone in ten years. Red zone plans generally may suspend early retirement subsidies and disability benefits not yet in pay status and other "adjustable benefits"and restrict lump sums, in addition to reducing future accruals. If emergence is not possible, a red zone plan must at least take reasonable measures to forestall insolvency.[32]

A "critical and declining" plan—generally one that is projected to be insolvent within 20 years—may permanently reduce benefits, even those in pay status, except for people who are older than 80 or are disabled. The reductions must be approved by the Treasury Department, in consultation with the Labor Department and PBGC, and the plan may not reduce benefits below 110% of the PBGC guaranteed level.[33]

PENSION INSURANCE UNDER ERISA

When the Studebaker Company liquidated in 1963, 4,000 vested employees between ages 40 and 60 got only 15% of promised benefits, and 2,900 under age forty got nothing.[34] That squarely presented the problem of default risk.[35] Federal insurance, through the PBGC, became the solution.

PBGC was largely modeled on the Federal Deposit Insurance Corporation.[36] Thus, for example, pension insurance is mandatory for covered plans.[37] And there are limits that serve as a form of co-insurance.[38]

23 26 U.S.C §§ 412(c), 430(a)(1)(c), (e).
24 26 U.S.C § 430(i). Even stricter limits apply to plans less than 60% funded or whose sponsors are in bankruptcy. Id. § 436.
25 26 U.S.C. § 430(j)(4).
26 26 U.S.C. § 4971.
27 ERISA makes all 80% commonly owned corporations or unincorporated businesses (a "controlled group") jointly and severally liable for pension contributions. 26 U.S.C. §§ 412(b)(2), 414(b), (c), 26 C.F.R. §§ 1.414(b)(1), 1.414(c)-1-(c)-5. The controlled group is also liable to PBGC for the obligations described at [7-8], and to multiemployer plans for those described at [8]. 29 U.S.C. §§ 1301(a)(14), 1301(b)(1), 1362(a), 1381, 29 C.F.R. § 4001.2.
28 26 U.S.C. § 430(k) (2012). The lien has the status of a federal tax lien. Thus, for example, it may become senior to advances under a revolving credit arrangement after 45 days or notice to the lender, whichever occurs first. 26 U.S.C. § 6323, incorporated by reference in 26 U.S.C. § 430(k)(4)(C) (2012) and 29 U.S.C. § 1368(c)(1) (2012).
29 26 U.S.C. § 431(a), (c)(3).
30 26 U.S.C. §§ 412(c), 431(d).
31 26 U.S.C. § 432(c).
32 26 U.S.C. § 432(e).
33 26 U.S.C. § 432(b), (e). The PBGC guaranty is discussed in n. 39.
34 James A. Wooten *"The Most Glorious Story Of Failure In The Business": The Studebaker-Packard Corporation And The Origins Of ERISA*, 49 Buff. L. R. 683, 731 (2001).
35 *Id*.
36 120 Cong. Rec. S29950 (daily ed. Aug 22, 1974) (statement of Sen. Bentsen).
37 29 U.S.C. § 1306(a), (c) (2016). Covered plans exclude those of governmental units, church affiliates, and certain other entities. 29 U.S.C. § 1321(b).
38 Richard A. Ippolito, *The Economics of Pension Insurance* 21-24, 37-38 (1989).

PBGC guarantees benefits under single-employer plans and multiemployer plans.[39] The insurable event for a single-employer plan is plan termination.[40]

Single-Employer Plans

To terminate an underfunded single-employer plan, the sponsor and its controlled group must satisfy the requirements for a distress termination.[41] Each member must meet a distress test, most commonly:[42]

- A petition to liquidate is filed;[43]
- A petition seeking reorganization is filed, and the sponsor establishes to the court's satisfaction that it "will be unable to pay all its debts pursuant to a plan of reorganization and will be unable to continue in business outside . . . the reorganization process," unless the plan is terminated;[44]
- PBGC determines that the sponsor "will be unable to pay [its] debts when due and will be unable to continue in business," unless the pension plan is terminated.[45]

PBGC may not proceed with a distress termination "if the termination would violate the terms and conditions of an existing collective bargaining agreement."[46] PBGC defers to the arbitrator, the NLRB, or other competent authority when there is a dispute about a potential contract bar to termination.[47]

PBGC can initiate termination in what's usually called an involuntary termination.[48] The grounds for an involuntary termination include:

- the plan's failure to meet the IRC's minimum funding standard;
- its inability to pay benefits when due; or that
- PBGC's possible long-run loss "may reasonably be expected to increase unreasonably if the plan is not terminated."[49]

On termination of an underfunded plan, PBGC becomes trustee, taking over the plan's assets and its obligations. The sponsor and its controlled group is liable to PBGC for the difference between the plan's benefit liabilities and its assets, the "unfunded benefit liabilities."[50] Liability for unfunded benefit liabilities is meant to keep plan sponsors from promising benefits they cannot afford, thereby shifting the financial burden to the insurance program and to other sponsors whose premiums support the program.[51]

PBGC has issued regulations prescribing the mortality and interest assumptions to be used when calculating the amount of benefit liabilities.[52] They are designed to replicate the market price for closeout annuities.[53] The regulation uses a constant mortality factor, so the higher the surveyed price the lower the interest factor.[54]

The plan sponsor and members of its controlled group are also jointly and severally liable to PBGC:

- for unpaid minimum funding contributions;[55]
- for unpaid insurance premiums;[56] and
- for a termination premium, in three annual installments of $1,250 per plan participant.[57]

Multiemployer Plans

Multiemployer plans can terminate, by mass withdrawal or by plan amendment.[58] The insurable event, however, is insolvency, the inability to pay benefits when due.[59] PBGC doesn't become trustee of multiemployer plans, but provides them with financial assistance to pay benefits at the guaranteed level.[60]

Multiemployer plans spread the risk of business failure. When an employer withdraws, by going non-union or ceasing business, it incurs withdrawal liability for its share of the plan's unfunded vested benefits.[61] The present value of benefits is based on actuarial assumption, often the same as the plan's funding assumptions, but sometimes more conservative.[62]

An employer pays withdrawal liability in installments designed to approximate its contributions at their highest point.[63] Those payments are ordinarily capped at 20 years' worth. If the plan terminates by mass withdrawal, then all employers who withdrew during the preceding three years are presumptively liable for a share of remaining "orphan" liabilities, and the 20-year cap does not apply.[64]

39 For single-employer plans, the maximum guaranteed amount is about $65,000 per year at age 65. For multiemployer plans, the maximum guarantee is a function of the participant's service and the benefit accrual rate under the plan, e.g., about $13,000 per year with 30 years of service, $8,600 per year with 20 years of service, and so on. The guaranty of benefit increases less than five years old is phased in for single-employer plans, but not guaranteed at all for multiemployer plans. 29 U.S.C. §§ 1322(b)(1), (3), (7), 1322A(b), (c).

40 29 U.S.C. § 1361.

41 29 U.S.C. § 1341(c).

42 *Id.* § 1341(c)(2)(B)-(C).

43 *Id.* § 1341(c)(2)(B)(i).

44 *Id.* § 1341(c)(2)(B)(ii).

45 *Id.* § 1341(c)(2)(B)(iii)(I).

46 29 U.S.C. § 1341(a)(1).

47 29 CFR § 4041.7

48 29 U.S.C. § 1342.

49 *Id.* § 1342(a)(4).

50 29 U.S.C. §§ 1301(a)(18), 1362(c).

51 S. Rep. No, 93-383, at 87 (1973), *reprinted in* 1974 U.S.C.C.A.N. 4971.

52 29 C.F.R. §§ 4044.52-.53 (2014); 29 C.F.R. pt. 4044 App. B.

53 *Derivation of Interest Factors for PBGC's Liability Valuation Methodology*, (Sept. 6, 2013), *https://www.pbgc.gov › documents › LiabilityValuation-20130906*.

54 29 C.F.R. §§ 4044.41-.75 (2016); 70 Fed. Reg. 72,205 (Dec. 2, 2005) (*codified* as 29 C.F.R. pt. 4044).

55 29 U.S.C. § 1342(d)(1)(B)(ii).

56 *Id.* § 1307(e).

57 *Id.* § 1306(a)(7)(A).

58 29 U.S.C. § 1341A.

59 29 U.S.C.§§ 1361, 1426.

60 29 U.S.C. § 1322A, 1431.

61 29 U.S.C. § 1381, 1383(a).

62 Compare *Manhattan Ford Lincoln, Inc. v. UAW Local 259 Pension Fund*, 331 F.Supp.3d 365 (D. N.J. 2018) (upholding a discount rate that blends funding and closeout interest factors), with *New York Times Company v. Newspaper and Mail Deliverers' Publishers' Pension Fund*, 303 F.Supp.3d 236 (S.D. N.Y.2018) (overturning such a blended rate).

63 29 U.S.C. § 1399(c)(1).

64 29 U.S.C. § 1399(a)(1)(A) - (D).

Continued from p.49

Withdrawal liability is meant to neutralize incentives to withdraw, to shore up plans affected by withdrawals, and to keep faith with remaining employers. But many multiemployer plans have not recovered from investment losses suffered in the Great Recession or from continued erosion of their contribution base. In addition, the 20-year cap has limited withdrawal liability where contributions were not increased to keep pace with the funding gap. Consequently, PBGC's multiemployer insurance fund is expected to become insolvent by 2026.[65]

CURRENT CASES ILLUSTRATE IMPACT OF DEFINED BENEFIT PLANS ON RESTRUCTURING

McClatchy's Funding Woes

The McClatchy Company filed for bankruptcy on February 13, 2020.[66] The petition reflects a PBGC claim of $530 million, the largest general unsecured claim.[67] Soon after that, McClatchy filed a motion to terminate its pension plan in a distress termination.[68]

The company's Nov 13, 2019 10-Q set the stage:

> We made no cash contributions to the Pension Plan during the first nine months of 2019 or all of 2018. In October 2019, we made a required pension contribution under ERISA of $3.1 million, and we expect to have material contributions in the future. Minimum required contributions for fiscal year 2020 are estimated to be approximately $124.2 million, which would be paid in quarterly installments beginning in January 2020 with the bulk of those payments due in September 2020 or afterwards.[69]

McClatchy had apparently used pre-funding balances in lieu of cash contributions, and those balances were nearly exhausted.[70] As it typical in such cases, cash flow demands would then spike up sharply.

The 10-Q continued:

> . . . [I]n June 2019 we filed an application for a waiver of the minimum required contributions under the Pension Plan for the 2019, 2020 and 2021 plan years with the IRS. In early November 2019, the IRS declined to grant us our three-year waiver request.

While IRS may grant waivers for three years out of fifteen, 29 U.S.C. § 1082(c)(1)(A), it does not grant multi-year waivers based on a single application.[71]

Continuing, the 10-Q said that McClatchy had:

> . . . consulted with the PBGC to discuss measures allowed under existing regulations to provide a more permanent solution, such as a distress termination of the Pension Plan. A distress termination would allow us to continue to operate and relieve the current liquidity pressures of the minimum required contributions under ERISA.
>
> * * *
>
> If we are unable to obtain pension relief and/or a restructuring of our outstanding debt obligations, we may need to seek protection under Chapter 11 of the U.S Bankruptcy Code to protect shareholder value.

Distress termination motions in bankruptcy may require an evidentiary hearing. At a minimum, they require declarations and documentary evidence. The debtor must show that its projected cash flow will be inadequate to support projected minimum funding contributions. Relevant factors include whether the debtor has explored feasible alternatives.[72]

Distress terminations can also turn on the debtor's ability to obtain exit financing. For example, where a debtor would have to devotee its entire free cash flow to pension funding, it could not plausibly attract financing.[73] By contrast, where an investor asserts that will not close unless the plan is terminated, the "existential financial realities" may or may not support that assertion.[74]

Debtors or creditors committees often contest the unfunded benefit liabilities claim, asserting that use of the annuity marketplace inflates the claim, and that an earnings rate based on modern portfolio theory should be used to discount future benefits. PBGC responds that the regulation has the force of law and is reasonable, as the annuity marketplace is the best measure of the cost of satisfying pension liabilities.[75] Based on the Supreme Court's decision in Raleigh v. Illinois Department of Revenue, that "[c]reditors' entitlements in bankruptcy arise in the first instance from the underlying substantive

65 2019 PBGC Ann Rep., at 21, https://www.pbgc.gov/about/annual-reports/pbgc-annual-report-2019.

66 No. 20-10418-(MEW) (Bankruptcy S.D.NY. (docket available at http://www.kccllc.net/McClatchy).

67 Voluntary Petition, docket no. 23 (Feb. 13, 2020), at 16.

68 Motion for an Order (A) Determining that the Financial Requirements for a Distress Termination are Satisfied and (B) Approving a Distress Termination of The McClatchy Company Retirement Plan, docket no. 54 (Feb. 26, 2020).

69 https://investors.mcclatchy.com/sec-filings.

70 See The McClatchy Company Retirement Plan Form 5500, Schedule SB (2018), available at https://freeerisa.benefitspro.com/5500/InstantView.aspx?dln=20191014235302P030081263687001&year=2018&ein=522080478.

71 IRS has not formalized this position. But a waiver application must be filed within 2-1/2 months after the close of the plan year, 26 U.S.C. § 412)(c)(5)(A), and IRS is apparently unwilling to permit multiple-year, advance filings.

72 *In re U.S. Airways Group., Inc.*, 296 B,R, 734, 745 (Bankr. E.D. Va. 2003).

73 *In re Wire Rope Corp.*, 287 B.R. 771, 780-81 (Bankr. W.D. Mo. 2002).

74 *In re Philip Servs. Corp.*, 310 B.R. 802, 808 (Bankr. S.D. Tex. 2004).

75 See *PBGC v. Belfance (In re CSC Indus., Inc.)*, 232 F.3d 505, 508-09 (6th Cir. 2000); *PBGC v. CF&I Fabricators of Utah, Inc. (In re CF&I Fabricators of Utah, Inc.)*, 150 F.3d 1293, 1300-01 (10th Cir. 1998).

law creating the debtor's obligation," PBGC has generally prevailed on the issue.[76]

The controlled group rule may result in additional leverage for the PBGC. Often, subsidiaries have no substantial debt ahead of PBGC's joint and several claims. In such cases, PBGC would assert that its claimsare structurally superior to claims against only the parent or one or more of the top-level subsidiaries.

Though arguments for priority of the unfunded benefit liabilities claim are possible, courts have generally rejected them.[77]

A perfected minimum funding lien would be indefeasible in bankruptcy.[78] But it would be behind any prior perfected liens and might be further behind any debtor in possession borrowings.[79]

Generally, the courts grant priority only to the "normal cost" portion of each contribution that becomes payable postpetition, as only post-petition service benefits the estate.[80] The argument for limiting priority of prepetition contributions is even stronger, as they must "aris[e] from services rendered within the 180 days before the date of the filing of the petition."[81]

Unpaid premiums may be entitled to administrative expense or tax priority, but there is a dearth of case law. So too with termination premiums, except that in a true reorganization, that obligation may not be a dischargeable bankruptcy "claim." Rather, the Second Circuit has held it "does not even arise until the bankruptcy itself is terminated."[82]

Dairy Giants' Multiemployer Pension Overhang

Dean Foods' bankruptcy petition lists the Central States Pension Fund as its largest general unsecured creditor, with an estimated withdrawal liability claim of $722 million.[83] Similarly, Borden Foods' petition lists Central States withdrawal liability claim at $33 million, also the largest general unsecured claim.[84]

Central States, with the largest benefits payroll of any multiemployer plan, is projected to become insolvent in the next five years. As a "critical and declining" plan, it is effectively in an orderly wind-down mode.

As noted, withdrawal liability is stated as a lump sum but is payable in installments, capped at 20 years' worth. But in a mass withdrawal, the 20-year cap does not apply, and all remaining underfunding is reallocated.[85] The figure given in the Dean petition may represent the capped payments, the uncapped payments, or the mass withdrawal liability exposure.[86] The figure given in the Borden petition apparently represents agreed payments for a withdrawal that occurred in 2014.[87]

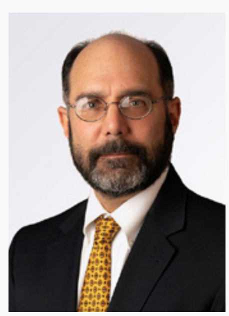
There are arguments for priority, but courts generally treat withdrawal liability as a general unsecured claim, as it mainly represents pre-petition service liabilities.[88]

In bankruptcy, withdrawal may occur through modification or rejection of the collective bargaining agreement.[89] Or a purchaser may acquire assets free and clear of claims, leaving the claim behind with a liquidating debtor.[90] And withdrawal liability may not be incurred if the debtor reorganizes and does not modify its labor agreements. [91]

CONCLUSION

As this summary suggests, employee benefits issues are often prominent in bankruptcies. Employers, lenders, unions, and other parties in interest should be conversant with the legal principles that govern these issues, and should seek expert legal, financial, and actuarial advice to maximize their leverage both in bankruptcy and in pre-bankruptcy planning and negotiations.

ABOUT THE AUTHOR



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76 E.g., *Dugan v. PBGC (In re Rhodes, Inc.)*, 382 B.R. 550 (Bankr. N.D. Ga. 2008); *In re High Voltage Eng'g*, No. 05-10787 (Bankr. D. Mass. July 26, 2006); *In re UAL Corp.*, No. 02-48191 (Bankr. N.D. Ill. Dec. 16, 2005); *In re US Airways Group, Inc.*, 303 B.R. 784 (Bankr. E.D. Va. 2003); see *Raleigh v. Illinois. Dept. of Revenue*, 530 U.S. 15, 20 (2000).

77 *PBGC v. Skeen (In re Bayly Corp.)*, 163 F.3d 1205 (10th Cir. 1998), *aff'g* No. Civ. A. 95 N 901, 90-18983 SBB, 1997 WL 33484011(D. Colo. Feb. 12, 1997).

78 See 11 U.S.C. § 545.

79 See 11 U.S.C. § 364.

80 *PBGC v. Belfance (In re CSC Indus., Inc.)*, 232 F.3d 505, 510 (6th Cir. 2000); *PBGC v. CF&I Fabricators of Utah, Inc. (In re CF&I Fabricators of Utah, Inc.)*, 150 F.3d 1293, 1296-1300 (10th Cir. 1998); *PBGC v. Sunarhauserman, Inc. (In re Sunarhauserman, Inc.)*, 126 F.3d 811, 814-19 (6th Cir. 1997).

81 11 U.S.C. § 507(a)(5).

82 *PBGC v. Oneida, Ltd (In re Oneida)*, 562 F.3d 154, 157 (2d Cir. 2009).

83 *In re Southern Foods Group, LLC d/b/a Dean Foods*, No. 19-36313, Voluntary Petition (Bankr. S.D. Tex. Nov. 12, 2019), available at https://dm.epiq11.com/case/SouthernFoods/dockets.

84 *In re Borden Dairy Company*, No. 20-10010, Voluntary Petition (Bankr. D. Del.), available at https://dr201.s3.amazonaws.com/bdc/VoluntaryPetitions/20-10010.pdf.

85 29 U.S.C. § 1399(c)(1)(B), (D).

86 Withdrawal liability need not be disclosed on the financial statements unless it is probable of occurrence. See ASC 450, https://asc.fasb.org/section&trid=2127173.

87 New Chapter 11 Bankruptcy Filing - Borden Dairy Company, https://www.petition11.com/cases.

88 See *In re Marcal Paper Mills*, 650 F.3d 311 (3d Cir. 2011).

89 See 11 U.S.C. § 1113.

90 See 11 U.S.C. § 1113(b); 11 U.S.C. § 363(f).

91 Dean Foods has given notice of the rejection of its collective bargaining agreements. Docket no. 1867 (April 30, 2020).

#AC20 VIRTUAL SERIES

36TH ANNUAL BANKRUPTCY & RESTRUCTURING CONFERENCE VIRTUAL SERIES

JUNE 2-24, 2020, ONLINE

The AIRA invites you to join the AC20 Virtual Series, an in-depth virtual conference consisting of a series of webinars presenting the complete educational program planned for the Chicago conference. The AC20 Virtual Series provides the opportunity to earn up to 37 CPE/28 CLE* from the comfort of home or office. Participants may attend either or both preconference programs (Bankruptcy Taxation and Financial Advisors' Toolbox), 16 sessions on the hottest topics and developments in bankruptcy and restructuring, and two keynote presentations.

See www.AIRA.org/AC20 for details.

**CLE applications pending approval.*

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Thank you to the Co–Chairs and Planning Committee for their hard work and time in making this year's virtual conference a big success!

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VIRTUAL KEYNOTES

THU, JUNE 18, 2020 4:00PM-5:00PM
"HUMAN TRAFFICKING AND MONEY LAUNDERING"

Anita's presentation will focus on defining human trafficking and spotting the red flags in financial institutions and corporations, etc. She will talk about how profitable the industry is, how it affects businesses and what can be done about it.

WED, JUNE 24, 2020 2:30PM-3:30PM
"SPORTS, ECONOMICS AND THE LAW"

Important legislation and cases that have shaped how professional sports leagues function and are constrained. Plus, the economics of college athletics, including the case for paying players.

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Ernst & Young's global network of restructuring professionals can help you develop financial and operational strategies to help improve liquidity, credit availability and shareholder return. Where ever you are located, our multi-disciplinary team offers integrated, objective advice and helps you to evaluate capital options, improve the benefits of transactions and achieve your strategic goals —whether you are buying or selling a distressed asset, restructuring your business or dealing with under performance or cash management. We provide you with creative, collaborative advice supported by our significant industry and sector knowledge to create a tailored approach for you. www.ey.com

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Bederson is a full service accounting and advisory firm with offices in Fairfield and West Orange, New Jersey. The firm's West Orange office comprises six partners, professional and support staff solely dedicated to providing insolvency and litigation services. For close to ten years, the firm has attained top recognition by New Jersey's legal community for service expertise in bankruptcy, business valuations, forensic accounting and business accounting. Bederson is privileged to have helped clients in the legal community, private business and home offices reach optimal outcomes since 1937. www.bederson.com

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Professionals at Berkeley Research Group, a leading global expert services and consulting firm, have decades of experience solving complex financial and insolvency issues. Our service offerings include a combination of bankruptcy and insolvency services, fiduciary services, forensic and investigative accounting, litigation consulting, corporate recovery and reorganization, valuation services, and tax services. With well-defined areas of specialization and through years of experience, our professionals have developed unique expertise and judgment handling the complex issues that arise in these types of engagements. www.thinkbrg.com

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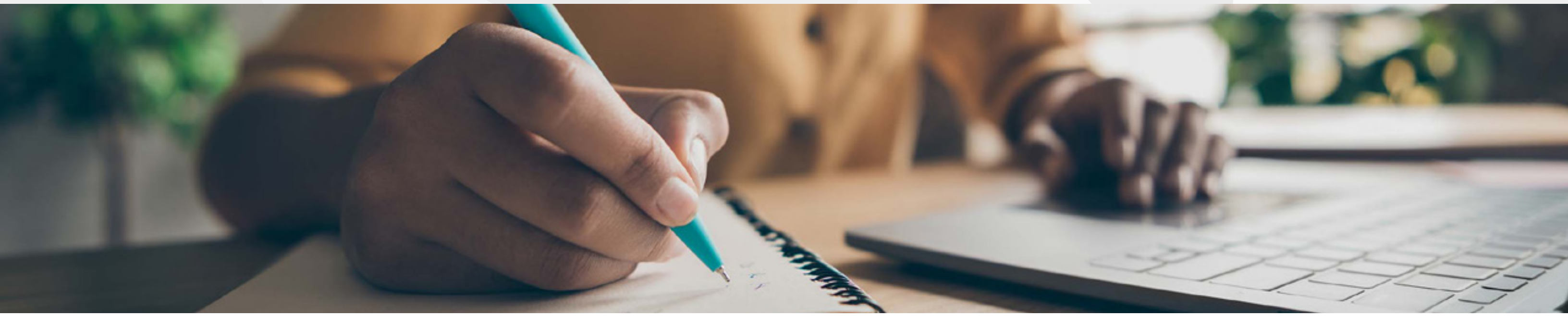

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The Bankruptcy and Corporate Restructuring Section of Young Conaway Stargatt & Taylor, LLP brings a depth of legal knowledge, technological skill, and creativity to complex and fast-paced reorganizations, restructurings, liquidations, and distressed acquisitions and sales. Our 35 bankruptcy attorneys have been able to achieve optimal results in a wide array of industries. Publications such as U.S. News and World Report and Chambers USA continue to rank Young Conaway as one of the nation's preeminent insolvency practices. Young Conaway's bankruptcy and corporate restructuring attorneys represent clients' interests in Delaware, the Southern District of New York, as well as other bankruptcy courts throughout the United States.
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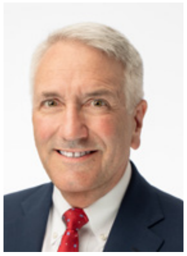
MEMBERS ON THE MOVE:

Chicago, Illinois – Harney Partners is excited to announce the addition of Thomas (Tom) Hidder as Managing Director and Brian Hartford, CIRA, as Senior Manager.



Tom Hidder brings more than 35 years of experience in the middle market as a proven leader for privately-owned businesses in transition. Most recently, Tom has served as Chief Financial Officer for CARite Holdings, LLC and was instrumental in managing the business's asset-based lending and commercial banking relationships. He also served as CFO of Brook Furniture Rental for nearly 6 years, leading the successful sale process of the company to a private investment group. Tom has extensive experience and strength in resolving strategic and tactical business issues, evolving organization structures, re-positioning business lines, and managing creditor and investor relationships, among others.

Brian Hartford, CIRA, is a turnaround and restructuring specialist with more than a decade of experience working with emerging start-ups to middle and upper-middle market companies. Brian works with business stakeholders to solve complex issues in both an advisory and an executive capacity. He has led engagements involving financial restructuring, turnaround management, performance improvement, valuation, transaction advisory services for buy and sell-side M&A transactions, and forensic and complex accounting services.

PRESS RELEASES:

Alvarez & Marsal Managing Director Andrea Gonzalez to Serve with the Firm's Unsecured Creditors' Committee Advisory Practice

Chicago, IL – Alvarez & Marsal announces that **Andrea Gonzalez**, a Chicago-based Managing Director who joined the firm's Disputes and Investigations practice six and a half years ago, will now serve in its Unsecured Creditors' Committee (UCC) Advisory practice.

Ms. Gonzalez has in-depth experience advising various healthy and distressed companies, unsecured creditors, law firms, corporations and other stakeholders by conducting fraud investigations, preparing valuation estimates, pursuing litigation and resolving complex business, accounting and financial matters. She works with A&M clients across a wide range of industries, including agriculture, casino/gaming, consumer products, e-commerce, electronics, financial services and health care, among others.

CohnReznick Launches Transactions & Turnaround Advisory Practice

New York, NY – CohnReznick LLP, one of the leading advisory, assurance, and tax firms in the United States, has announced the combination of several synergistic teams under the Transactions & Turnaround Advisory umbrella. The integrated practice brings together the firm's transactional, restructuring and dispute resolution, valuation, and project finance advisory teams to meet increasingly complex client needs. **Claudine Cohen**, a seasoned transaction advisor, will lead the combined group as Managing Principal.

In addition to Cohen, Transactions & Turnaround Advisory leadership includes, **Kevin Clancy, CIRA, Cynthia Romano** (restructuring and dispute resolution), **Patricia McGarr** (valuation), **Marshall Phillips** (project finance), and **Margaret Shanley** (transactions).

2020 AIRA GRANT NEWTON SCHOLARSHIP

Pepperdine University's accounting faculty selected Kevin Rios to receive this year's scholarship for outstanding academic performance and his work with students outside of his classes. He is a junior from Southern California and is an active student on campus. A Posse Scholar, Kevin is on the Executive Committee of Delta Sigma Pi, a business fraternity, and an Accounting tutor at Pepperdine University's Student Success Center. Kevin completed an internship at Deloitte his freshman year and he was selected to be a fellow for the 2020 Jeff Ubben Posse Fellows Program. He is very inquisitive and often asks insightful questions on various topics. A natural leader, he communicates well with others and is usually the one setting the structure and pace in group settings. Students are drawn to Kevin due to his positive energy and his willingness to always assist others. During the safer-at-home period, he has been keeping up with schoolwork, his tutoring job, and working on getting fit.

AIRA GRANT NEWTON EDUCATIONAL ENDOWMENT FUND

The mission of the AIRA's Endowment Fund is to further educational programs and funding of research focused on the areas of accounting, restructuring and insolvency including establishments of scholarships; sponsorships and encouragement of research and educational forums; education of judges, court personnel and governmental and other not-for-profit personnel; and providing other projects, materials or educational benefits to the bankruptcy and insolvency community.

Through the generosity of our members, the Endowment Fund has reached a level enabling AIRA to fund a regular scholarship. The AIRA Board of Directors approved its third scholarship funding of $2,500 to Pepperdine University at its January board meeting.

To make a contribution or pledge online, go to https://www.aira.org/aira/endowment_fund. You may also send a check payable to "AIRA Grant Newton Educational Endowment Fund" by mail to AIRA, 221 W. Stewart Avenue, Suite 207, Medford OR 97501. For more information contact AIRA Controller, Sue Cicerone scicerone@aira.org.

Contributors of $200 or more will receive a limited-edition Grant W. Newton bobble head, designed to commemorate Grant's retirement after more than three decades of leadership and service to the AIRA and its education program.

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FTI Consulting, Inc.	**63**
Alvarez & Marsal	**59**
Ernst & Young LLP	**34**
Huron	**23**
Berkeley Research Group, LLC	**22**
Pension Benefit Guaranty Corporation	**19**
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SOLIC Capital Advisors, LLC	**11**
Protiviti Inc	**10**

**Note: The print version of the AIRA Journal indicated the number of active CIRA members employed by PBCG was 31; the correct number was 19. The Office of the US Trustee was indicated to have 29; the correct number was 14.*

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The Association of Insolvency and Restructuring Advisors is governed by a board composed of up to 40 directors (several former directors continue to serve as directors emeritus). Directors are elected by majority vote at a meeting of the Board, serve for a term of three years (or such less term as the Board may determine or until their successors are duly elected and qualified) and may serve an unlimited number of terms, whether or not consecutive. The majority of the directors on the Board must have a CIRA Certificate; although most are financial advisors, a number of directors are attorneys. New officers assumed their duties at the end of the June Annual Conference and will serve for one year.

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