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I. Introduction

This is an appraisal action. The petitioners Global GT LP and Global GT Ltd. owned nearly 1.4 million shares of respondent Golden Telecom, Inc. (“Golden”), a Russian-based telecommunications company that was listed on the NASDAQ. The petitioners claim that Golden was undervalued in a 2007 merger in which Golden was purchased for \$105 per share by Vimpel-Communications (“VimpelCom”) — a major Russian provider of mobile telephone services whose two largest stockholders were also the largest stockholders of Golden.

As is typical, the outcome of this appraisal proceeding largely depends on my acceptance, rejection, or modification of the views of the parties’ valuation experts. Both experts were well qualified to testify about the appropriate inputs to use in valuing a public company; but neither had a deep knowledge of the Russian telecommunications market or of Golden itself. Both these men of valuation science purported to apply the same primary method of valuation — the discounted cash flow (“DCF”) method — but the expert for the petitioners came up with a value of \$139 per share and the expert for Golden came up with a value of only \$88 per share — a modest \$51 per share value gap.

In this decision, I reach a valuation of Golden using the DCF methodology, which is the method that both experts viewed as the most reliable. I eschew any reliance on methods based on analogizing to comparable companies or transactions because the experts themselves had even less knowledge of the comparables than they did of Golden and both viewed it difficult to find a good

sample of comparables. Thus, I focus on coming up with a solid, if necessarily imperfect, valuation using the DCF method that both experts embraced as the technique most susceptible to useful application.

In focusing on a DCF valuation, I reject Golden's argument that I should give weight to the merger price itself on the grounds that the merger reflected a market-tested price. I reject that proposition for several reasons. First of all, the Special Committee that negotiated the merger never engaged in any active market check either before or after signing the merger agreement with VimpelCom. Second and most important, the passive market check that is supposed to instill confidence in me required market participants to assume that Golden's two largest stockholders, Altimo Holdings and Investments Limited ("Altimo") and Telenor ASA ("Telenor"), would both sell their Golden stake to another bidder, despite the fact that they had an economic interest in VimpelCom that was far more substantial than their stake in Golden — an unlikely prospect made even more doubtful by Altimo's public announcement that it did not intend to sell its 26% stake in Golden in another transaction. Given these market realities, it is not surprising that Golden's Special Committee chairman admitted that the Committee had focused on getting the best deal they could from VimpelCom. There was no open market check that provides a reliable insight into Golden's value.

After rejecting that argument, I wade through the discrete differences that explain the experts' differing DCF valuations, which primarily involve Golden's terminal growth rate, and the appropriate equity risk premium and beta to use in

calculating a discount rate. After making my determinations as to these disagreements, I plugged them into the petitioners' DCF model and generated a per share value of \$125.49 per share, which I supplement with an award of interest at the applicable statutory rate.

II. Factual Background¹

The trial record was largely dominated by the testimony of the experts. For their part, the petitioners presented the testimony of Paul Gompers, a Professor of Business Administration at Harvard Business School.² Golden offered Marc Sherman, a Managing Director of Alvarez & Marshal, to respond.³ Both experts are well qualified generally in the literature of valuation. Although Sherman has a bit more practical telecommunications experience, having done some valuation work involving other telecommunications firms, neither struck me as anything

¹ These are the facts as I find them after trial.

² Gompers graduated from Harvard College, and later earned a M.Sc. in Economics from Oxford University and a Ph.D. in Business Economics from Harvard University. He teaches courses at the graduate level and conducts research in areas including corporate finance, the valuation of companies, and entrepreneurial finance and management. Gompers has authored numerous case studies and technical notes, articles in peer-reviewed journals on finance and economics, and has co-authored four books. In the past, he has been retained as a valuation expert for a variety of companies, including a telecommunications company. *See* JX 728 (Expert Report of Paul A. Gompers) (“Gompers Report”) at 1.

³ Sherman graduated from the University of Baltimore, and received his J.D. from the University of Maryland School of Law. Before joining Alvarez & Marshal, Sherman was a Managing Director at Huron Consulting Group, and a partner at KPMG. He has also authored or co-authored several books. He is a certified public accountant, an attorney, a Certified Insolvency and Reorganization Advisor, a Certified Fraud Examiner, and is certified by the American Institute of Certified Public Accountants in Financial Forensics. Sherman has served as a valuation expert for businesses in a variety of industries, including communications, and has worked on a number of valuation projects involving the telecommunications industry. *See* JX 730 (Expert Report of Marc B. Sherman) (“Sherman Report”) at 4-5, Ex. A.

close to an industry expert. Moreover, neither had a deep knowledge of Golden itself or the Russian telecommunications industry.

Golden has tried to impress me with the fact that Sherman spoke with management for Golden *after* the merger and *during* the litigation, and therefore supposedly gained a deeper sense of the firm and industry than did Gompers, who did not do so. Of course, the managers for Golden working for the VimpelCom corporate empire had an incentive to cooperate with Sherman, and doubtless Golden would not have given Gompers unfettered access to them. In that respect, the testimony of the two fact witnesses who testified about Golden was not particularly helpful in terms of conveying a good sense of Golden's prospects.

Fortunately, the experts did agree that there were a reliable set of projections prepared by Golden's management that existed for the first five years beyond the merger. Given the existence of those projections and the general evidence in the record regarding the telecommunications industry both in Russia and internationally, and the predicted future of the Russian economy, there is a rational, if far from fully satisfying, record from which to resolve the discrete areas of opinion where the experts differ.

What precedes my resolution of those issues is my distillation of the record, such as it is, regarding Golden and its prospects.

A. Golden's Business And Plans For Expansion

Golden, a telecommunications company, operated in the former Soviet Union, and was publicly traded on the NASDAQ.⁴ Its initial public offering took place in September 1999 and, after that time, Golden grew primarily through self-financed acquisitions of regional-based telecommunications companies in Russia and other countries in the Commonwealth of Independent States (the "CIS").⁵ Although Golden was, at first, predominately focused on providing long-distance services, its acquisitions of local telephone companies throughout Russia and certain CIS countries gave Golden the capacity to provide local service to homes and businesses.⁶

Golden traditionally focused on providing fixed-line services, meaning that it provided telephone services through fiber or copper wiring,⁷ and derived its revenues primarily from corporate customers and from services provided to other telecommunications and mobile operators.⁸ By 2006, Golden had begun to

⁴ Before it was incorporated, Golden was a majority-owned subsidiary of Global TeleSystems, Inc., which was among the first foreign telecommunications operators in the former Soviet Union. *See* JX 16 (Golden 2007 10-K (Mar. 17, 2008)) ("2007 10-K") at 4.

⁵ The CIS includes: the Azerbaijan Republic; the Republic of Armenia; the Republic of Belarus; Georgia; the Republic of Kazakstan; the Kyrgyz Republic; the Republic of Moldova; the Russian Federation; the Republic of Tajikistan; Turkmenistan; the Republic of Uzbekistan; and the Ukraine. *See* Commonwealth of Independent States: CIS States, <http://cis.minsk.by/main.aspx?uid=3360>.

⁶ Tr. at 80-81 (Gallagher).

⁷ Tr. at 82 (Gallagher), 472 (Gompers).

⁸ 2007 10-K at 36; JX 646 (Golden Investor Presentation (October 2007)) (the "2007 Investor Presentation") at 5-7.

expand its focus to include Wi-Fi,⁹ which was in the early stages of development in Russia and the CIS, and broadband internet,¹⁰ which was available only in major Russian cities.¹¹ By the end of 2007, Golden had completed approximately thirty acquisitions of smaller companies, and had become a leading facilities-based provider of integrated telecommunication and internet services in the most populated areas of Russia and other countries of the CIS, and the largest independent telecommunications operator in Russia.¹² In particular, Golden acquired a 51% stake in Corbina, a telecommunications service provider that offers broadband internet in several Russian cities, which allowed Golden to offer bundled services including broadband internet, voice over internet protocol, internet protocol television, and mobile virtual network-based services.¹³

B. Golden's Management Creates A Five Year Plan

Despite its expansion into other areas of the internet and telecom market and its goal to sell a wide variety of related services to the customers on the ends of its cables, Golden remained primarily a fixed-line telecommunications provider for the business sector. Golden's Board of Directors established a five-year

⁹ Wi-Fi is a trademarked term, owned by the Wi-Fi Alliance, which applies to certified local area network devices that meet a class of technical standards — specifically, the IEEE 8.0211 standards. *See* GORDON A. GOW & RICHARD K. SMITH, MOBILE AND WIRELESS COMMUNICATIONS: AN INTRODUCTION (2006), at § 7.4.

¹⁰ Broadband refers to high-speed internet access, which can be delivered through various means, such as fiber optics, cable modems, or wirelessly. *See* FEDERAL COMMUNICATIONS COMMISSION — CONSUMER & GOVERNMENTAL AFFAIRS BUREAU, WHAT IS BROADBAND (2009), <http://www.fcc.gov/cgb/broadband.html>.

¹¹ Tr. at 82-83 (Gallagher).

¹² 2007 Investor Presentation at 5.

¹³ 2007 10-K at 5, 27, 44.

business plan for Golden (the “Five Year Plan”) in October 2007 to chart the company’s continued expansion.¹⁴ The Five Year Plan established a three-pronged strategy for Golden. First, Golden would continue to widen its corporate customer base in large cities, such as Moscow and St. Petersburg.¹⁵ Second, Golden would continue regional expansion to become a “national market player in both corporate and retail market segments.”¹⁶ Third, Golden would enter the emerging broadband market, and seek to become a “leading provider of broadband access in Russia and the CIS.”¹⁷ Although Gompers contends that Golden’s strategy reflected a marked move away from its prior consistent involvement in mergers and acquisitions activity, my reading of the record suggests that to accomplish this three-pronged strategy, Golden would be required to continue to engage in M&A activity to enter additional markets (which are comprised of cities smaller than Moscow but still far larger than, say, Wilmington, Delaware) and to gain scale in the product markets it wished to enter.¹⁸

The Five Year Plan projected revenue to grow annually at a declining rate:

2007	47.8%
2008	34.8%
2009	20.2%

¹⁴ JX 412 (Five Year Plan, 2007-2012, Board of Directors Meeting (Oct. 3, 2007)) (the “Five Year Plan”).

¹⁵ *Id.* at 4.

¹⁶ *Id.*; Tr. at 85 (Gallagher).

¹⁷ Five Year Plan at 4.

¹⁸ See JX 416 (Transcript of Golden’s Third Quarter Earnings Release Conference Call (Nov. 22, 2007)) at 10-11 (stating that Golden’s growth strategy included expansion into fifty cities, instead of the twenty in which it presently operated); Tr. at 816-18 (Svetlichny) (explaining that Golden had a number of smaller acquisitions “in the pipeline” before it was acquired by VimpelCom).

2010	19.5%
2011	13.0%
2012	8.5% ¹⁹

The Five Year Plan also estimated that Golden’s EBITDA margins would grow for three years, and then level off:

2007	25.9%
2008	31.8%
2009	32.1%
2010	32.6%
2011	32.6%
2012	32.5% ²⁰

The projections of Golden’s management were based on Golden’s business plan of expanding its corporate customer base, broadband service, and regional expansion throughout Russia and the CIS.²¹ The Five Year Plan considered the increased competition that Golden would face in all segments of its business as the Russian telecom market continued to grow,²² and a variety of potential risks, including political risk.²³

The predictions in the Five Year Plan are reasonable when considering the trends in the Russian market generally, and the telecom industry in particular. For example, the projected compound annual growth rate (“CAGR”) of the Russian

¹⁹ JX 502 (Golden Five Year Plan (Oct. 3, 2007)) at 1.

²⁰ *Id.* at 2.

²¹ Five Year Plan at 4.

²² Tr. at 91 (Gallagher).

²³ See JX 17 (Golden Telecom, Inc., Schedule 14D-9 (Jan. 18, 2008)) (the “Proxy”) at 43, 36 (explaining that Golden’s projections considered “the commercial and execution risks associated with implementing [Golden’s] business plan, [Golden’s] ability to enter the media market, the potential costs for possible future acquisitions, the potential effect of the regulatory regime on [Golden’s] operations, . . . the political, economic, and legal environment in the markets in which [Golden] operates”).

nominal GDP was expected to be 14.6% from 2007 to 2012, which is consistent with the average projected CAGR predicted for Golden in the Five Year Plan of 14.5%.²⁴ The projected CAGR of the Russian nominal GDP of 8.5% from 2012-2017 is in line with Golden's projected revenue growth in 2012 of 8.5%.²⁵ And, the decline in Golden's growth rate is consistent with the decline in the (still healthy) growth rate of Russia's overall telecom sector since 2004.²⁶

C. Russia's Expanding Telecom Market And Golden's Predicted Growth

Golden's Five Year Plan was based, in part, on the reasonable expectation that the Russian telecommunications market would continue to expand. Russia was one of the few remaining growth markets in Europe, and its telecom industry was predicted to grow rapidly, particularly the broadband retail market.²⁷ Golden was particularly well-poised to grow with the Russian market because it was the only operator present in all segments of Russia's fixed-line market in 18 of Russia's 20 largest cities.²⁸ Renaissance Capital, for example, opined in February 2007 that Golden was "well positioned to maintain its leadership in the corporate

²⁴ See JX 414 (Five Year Plan Executive Summary (2007)) at 4; Sherman Report at 46, 53 (citing *The Economist Intelligence Unit* (Jan. 2008)).

²⁵ See Sherman Report at 21, 53 (citing *The Economist Intelligence Unit* (Jan. 2008)).

²⁶ *Id.* at 25, 53 (citing Paul Budde Comm'n Pty. Ltd., *Russia — Key Statistics and Telecommunications Market* (Jan. 27, 2008), <http://www.budde.com.au>, at 3-4 (showing that the revenue growth in the Russian telecom market declined from 43% in 2003 to 25% in 2006)).

²⁷ See JX 221 (HSBC, *Golden Telecom* (Oct. 23, 2007)) at 7 (stating that "the growing consumer market will reshape the profile of the Russian economy, with domestic-oriented companies such as banks and telecom operators enjoying the strongest growth"); JX 168 (Renaissance Capital, *Golden Telecom — Loaded and Ready to Fire* (Aug. 8, 2007)) at 13 ("Given the level of broadband penetration, we expect to see rapid growth continue [in Russia] for the next three-to-four years.").

²⁸ 2007 Investor Presentation at 18, 20.

[telecom] segment,” and Golden’s residential internet market would become Golden’s “second-largest contributor to operating income in 2010” largely because Golden’s “fiber-to-the-home” internet service was “the best option on the market.”²⁹ Golden was also in a position to expand because it had very low levels of debt compared to other telecom companies.³⁰

D. Golden And VimpelCom Agree To Merge

Of course, just as Golden hoped to become a major competitor in the Wi-Fi and broadband markets, so too did other industry players have their eye on Golden’s space. One industry player in particular had box seats from which to contemplate Golden. That was VimpelCom.

Golden’s two largest stockholders, Altimo and Telenor, also happened to be the largest stockholders of VimpelCom. Indeed, Altimo and Telenor’s combined stake in VimpelCom was larger in both percentage terms and value. Specifically, Sunbird Limited, which owned 26% of Golden’s outstanding common stock, and Eco Telecom Limited, which owned 44% of VimpelCom’s outstanding voting capital, are both subsidiaries of Altimo. And, Nye Telenor East Invest AS, the beneficial owner of 18.3% of Golden’s outstanding common stock, and Telenor East Invest AS, the beneficial owner of 33.6% of VimpelCom’s outstanding

²⁹ JX 126 (Renaissance Capital, *Golden Telecom: What’s Going On With These Shares?* (Feb. 21, 2007)) at 6, 10, 14.

³⁰ See JX 129 (FIM Fin. Servs., *The TeliaSonera-Telenor-Altimo Triangle: A Soap Opera With A Shakespearean Ending?* (Mar. 14, 2007)) at 5 (noting that Golden was “underleveraged and could acquire more [local fixed-line] exposure through M&A’s”); Tr. at 271 (Gallagher) (explaining that Golden had \$250 million in debt, which was minimal compared to other companies in the industry).

common stock, are both subsidiaries of Telenor. Moreover, Altime and Telenor not only had board representatives on the VimpelCom board, but also had appointed members of the Golden Board.³¹ Four nominees of Eco Telecom Limited served on the VimpelCom board, including Oleg Malis and Alexey Reznikovich, who also served on the Golden Board.³² Four nominees of Telenor East Invest served on the VimpelCom board, including Kjell Morten Johnsen, who also served on Golden's Board.³³ Together, Altime and Telenor appointed a majority of the nine-member VimpelCom board, suggesting how deep their interest in VimpelCom was.

Given the cross-holdings and the reality that Golden was strong in fixed-line services and weak in mobile capabilities, and VimpelCom had just the opposite qualities, it was perhaps inevitable that a merger of the two firms would be considered.³⁴ At first, in February 2007, Golden's CEO, Jean-Pierre Vandromme, and VimpelCom's CEO, Alexander Izosimov, began to discuss the possibility of the two companies working together by, for example, cross-selling their services.³⁵ Discussions between senior management of Golden and VimpelCom continued throughout 2007 and, in furtherance of those discussions,

³¹ Proxy at 4.

³² *Id.*

³³ *Id.*

³⁴ Tr. at 91 (Gallagher).

³⁵ Proxy at 14.

the two companies entered into a confidentiality agreement and exchanged non-public information.³⁶

In April 2007, Izosimov met with Vandromme, and suggested that the two companies explore a transaction whereby VimpelCom would acquire 100% of Golden.³⁷ Golden's Board met on May 17, 2009 to discuss VimpelCom's proposal and decided to establish a Special Committee made up of the four Golden non-management directors who were not affiliated with Altimeo or Telenor.³⁸

The Special Committee retained Skadden, Arps, Slate, Meagher & Flom, LLP as outside counsel, and Credit Suisse Securities (USA), LLC as its financial advisor.³⁹ On July 3, 2007, VimpelCom gave Golden a summary sheet of proposed terms for a combination of the two companies. But because the summary sheet did not specify an offer price, the Special Committee decided not to respond until a more detailed proposal was presented.⁴⁰ Around this time, the news of VimpelCom's interest in Golden leaked into the market. In early September 2007, VimpelCom proposed to pay \$80 per share of Golden's stock, which the Special Committee rejected,⁴¹ and, in late September 2007, VimpelCom changed its proposal to a range of \$80 to \$95 per share.⁴² The Special Committee felt that the upper end of the range was "sufficiently attractive" to justify

³⁶ *Id.*

³⁷ *Id.*

³⁸ *Id.* at 14.

³⁹ Tr. at 248-49 (Gallagher).

⁴⁰ Proxy at 15-16.

⁴¹ JX 605 (Special Committee Meeting Minutes (Sept. 12, 2007)) at 3.

⁴² Proxy at 17-18; JX 402 (Special Committee Meeting Minutes (Oct. 1, 2007)) at 2.

continuing the negotiations process and entered into a second confidentiality agreement with VimpelCom, which gave VimpelCom access to Golden's non-public information and Golden's management.⁴³

VimpelCom raised its offer price again to \$100 on November 12, 2007.⁴⁴ But the Special Committee felt that this amount was inadequate, and rejected the offer on November 15, 2007.⁴⁵ On November 28, 2007, VimpelCom raised its offer to \$103 per share, and the Special Committee again rejected the offer. Although VimpelCom initially told the Special Committee that \$103 per share was its final offer, VimpelCom raised its offer to \$105 per share on December 1, 2007, which the Special Committee agreed to accept provided that all other material terms for the merger were fully resolved.⁴⁶

According to Patrick Gallagher, Chairman of the Special Committee, VimpelCom's offer of \$105 per share represented the "highest per share consideration reasonably obtainable" when considering the inherent risks in Golden's business plan, such as the increased competitiveness in Golden's key markets, political uncertainty in Russia, adverse changes in the global credit markets, and VimpelCom's intention to directly compete with Golden in the broadband market.⁴⁷ The Special Committee recommended that the full Board

⁴³ Proxy at 18.

⁴⁴ JX 404 (Letter from Alexander Izosimov to Jean-Pierre Vandromme (Nov. 12, 2007)).

⁴⁵ Proxy at 20; JX 406 (Letter from Jean-Pierre Vandromme to Alexander Izosimov (Nov. 15, 2007)).

⁴⁶ Proxy at 22-23.

⁴⁷ Tr. at 230, 231-32 (Gallagher) (quoting the Proxy at 27).

accept the merger and, on December 3, 2007, the Board unanimously approved the merger. Credit Suisse completed a fairness opinion for the \$105 per share price (the “Fairness Opinion”) and, at a December 20, 2007 meeting of the Special Committee, opined that the price was fair.

The discounted cash flow (“DCF”) analysis conducted by Credit Suisse came up with a range of \$85-\$128, and a median value of \$102.⁴⁸ Importantly, this valuation was premised on a nominal GDP growth rate for the Russian economy of 5.6%.⁴⁹ That was supposedly taken from an Economist Intelligence Unit (“EIU”) forecast for 2013 to 2017. The number used, however, does not track the December 2007 EIU data, which forecasted nominal GDP growth of 7.4%.⁵⁰ If the figure in the December 2007 EIU data was used in Credit Suisse’s model, its DCF value for Golden would have had a median value of \$110 per share.

The merger agreement between Golden and VimpelCom (the “Merger Agreement”) was executed the next day, on December 21, 2007.⁵¹ The Merger Agreement required that at least 63.3% of Golden’s outstanding shares be tendered before the merger could close.⁵² Additionally, the merger provided for: (1) an \$80 million termination fee, which represented 2% of the \$4 billion transaction;

⁴⁸ JX 503 (Credit Suisse Fairness Opinion) (“Fairness Opinion”) at 11; Proxy at 37.

⁴⁹ Fairness Opinion at 15.

⁵⁰ JX 324 (EIU real and nominal Russian GDP data including forecasts (1996-2003) as of December 20, 2007).

⁵¹ Proxy at 28.

⁵² *Id.* at 29.

(2) a \$120 million fee for Golden if VimpelCom's financing fell through; and (3) a matching right for VimpelCom to address superior offers.⁵³ But Altimo, which owned 26% of Golden, publicly indicated that it did not intend to sell its Golden stake to another bidder.⁵⁴ Telenor was more coy, but gave no affirmative indication that it would sell to another bidder, and its representative on the Golden Board had voted for the merger.⁵⁵ Unsurprisingly, given the objective facts regarding Altimo and Telenor's ownership interest in VimpelCom, no third party came forward after the Merger Agreement was signed to express an interest in buying Golden.

E. The Market Reacts Negatively To The Merger Price

After the merger price was announced on December 21, 2007, market analysts commented that the \$105 per share price was very favorable to VimpelCom and, perhaps most important, VimpelCom's stock price rose substantially.⁵⁶ Morgan Stanley, for example, downgraded Golden on the day that

⁵³ *Id.* at 28.

⁵⁴ *Id.* at 19-20.

⁵⁵ *Id.* at 26.

⁵⁶ After rumors about the proposed VimpelCom/Golden merger were leaked, the price of VimpelCom stock steadily increased until a few days after the Merger Agreement was announced. VimpelCom stock traded at \$22.12 on July 5, 2007, increased slightly to \$22.31 on July 6, 2007, the day that the first rumor of the merger was leaked, rose to \$41.98 on December 21, 2007, the day that the merger was announced, and peaked three days later at \$44.98 on December 24, 2007. *See* Google Finance, Vimpel-Communications (ADR), *available at* <http://www.google.com/finance?q=NYSE:VIP> (last visited Apr. 18, 2010); Yahoo Finance, Vimpel-Communications (VIP), <http://finance.yahoo.com/echarts?s=VIP#chart2:symbol=vip> (last visited Apr. 18, 2010). In fact, VimpelCom's stock price increased from \$37.73 on December 19, 2007, to \$39.38 on December 20, 2007, before reaching \$41.98 on the day of the merger announcement. *See id.*; BusinessWeek, Historical Stock Quotes for VimpelCom,

the price was announced, and expressed its concern that although “Golden offer[ed] attractive organic growth and prospects . . . the net realizable value for [Golden’s minority stockholders] may [have been] limited only to the level of the bid price.”⁵⁷ Renaissance Capital also commented that the transaction was favorable to VimpelCom shareholders, stating that “even purely taking the difference between [Renaissance Capital’s] valuation of Golden Telecom (\$136/share) and the tender offer (\$105 per share) add[ed] about \$1.2 per VimpelCom share.”⁵⁸

<http://investing.businessweek.com/research/stocks/snapshot/historical.asp?ticker=VIP:US> (last visited Apr. 18, 2010); *see also* Sherman Cross Examination Demonstratives 7-9; Tr. at 1052-54 (Sherman). The rise in VimpelCom’s price per share is difficult to attribute to general market trends. The DOW Jones Industrial Average, for example, was at 13,611 on July 6, 2007, and a bit lower at 13,450 on December 21, 2007. *See* Yahoo Finance, Dow Jones Industrial Average Index Chart, <http://finance.yahoo.com/echarts?s=^DJI> (last visited April 10, 2010). Similarly, the NASDAQ closed at 2,666.51 on July 6, 2007, and at 2,691.99 on December 21, 2007. *See* Yahoo Finance, NASDAQ Composite Historical Prices, <http://finance.yahoo.com/q/hp?s=^IXIC> (last visited April 10, 2010). Nor can the rise in VimpelCom’s stock price be easily attributed to the performance of the global telecom industry, which remained stable from early July 2007 to late December 2007. *See* Yahoo Finance, iShares Dow Jones US Telecom Historical Prices, <http://finance.yahoo.com/q/hp?s=IYZ&a=05&b=26&c=2007&d=11&e=30&f=2007&g=d&z=66&y=0> (last visited April 22, 2010) (showing that the Dow Jones US Telecom index fund traded at \$31.98 on July 6, 2007, and at \$28.03 on December 21, 2007); Yahoo Finance, iShares S&P Global Telecommunications Historical Prices, <http://finance.yahoo.com/q/hp?s=IXP&a=06&b=1&c=2007&d=11&e=30&f=2007&g=d&z=66&y=0> (last visited April 22, 2010) (showing that the S&P Global Telecommunications index fund traded at \$65.56 on July 6, 2007, and at \$71.18 on December 21, 2007).

⁵⁷ JX 301 (Morgan Stanley, *Golden Telecom: Downgrading to EW on VimpelCom Bid; PT Moves Down to US\$105* (Dec. 21, 2007)).

⁵⁸ JX 302 (Renaissance Capital, *VimpelCom Buying Golden Telecom* (Dec. 21, 2007)).

F. Shareholders Overwhelmingly Tender Their Shares At The \$105 Price

Although the movement in VimpelCom's stock price suggested that the market believed that VimpelCom was getting a good deal, an overwhelming majority of Golden's shareholders tendered their shares at the \$105 price. Under the terms of the Merger Agreement, Lillian Acquisition, Inc., a wholly owned subsidiary of VimpelCom, was to acquire 100% of Golden in a two step transaction. First, VimpelCom would commence a cash tender offer of \$105 per share for the outstanding shares of Golden common stock.⁵⁹ Second, a back-end merger would convert all Golden shares not tendered — other than those Golden shares subject to the exercise of appraisal rights — into the right to receive \$105 per share in cash.

VimpelCom commenced the tender offer on January 18, 2008. Altimo had already indicated that it intended to tender its shares and did so, but Telenor decided to first conduct its own analysis to determine whether the price was adequate,⁶⁰ and finally tendered its shares on February 5, 2008. A total of 94.4% of Golden's shareholders tendered at the \$105 price before the offer expired on February 26, 2008. The merger closed on February 28, 2008, and Golden became a wholly-owned subsidiary of VimpelCom.

⁵⁹ Proxy at 28; JX 19 (Golden Form SC TO-T/A (Feb. 27, 2008)).

⁶⁰ JX 807 (Telenor Form 13E-3 (Jan. 18, 2008)).

G. The Petitioners Request An Appraisal

The petitioners filed their request for an appraisal on April 18, 2008. Following extensive expert discovery, a trial was held on October 14-15, 19, and 30, 2009. This is my opinion on the fair value of Golden.

III. Legal Framework

Under 8 *Del. C.* § 262(h), this court must, upon finding that a stockholder is entitled to an appraisal, “determine the fair value of the shares exclusive of any element of value arising from the accomplishment or expectation of the merger or consolidation, together with interest, if any, to be paid upon the amount determined to be the fair value.”⁶¹ The entity must be valued as a going concern based on its business plan at the time of the merger,⁶² and any synergies or other value expected from the merger giving rise to the appraisal proceeding itself must be disregarded.⁶³

IV. Analysis

In addressing the question of fair value, I proceed in two steps. First, I explain why I reject Golden’s argument that the merger price is itself a reliable indication of fair value. Then, I grapple with the contending positions of the

⁶¹ 8 *Del. C.* § 262(h); *see also Cavalier Oil Corp. v. Harnett*, 1988 WL 15816, at *9 (Del. Ch. Feb. 22, 1988) (explaining that, in a § 262 action, the court must “determine the fair value of 100% of the corporation [and award] the dissenting stockholder his proportionate share of that value”), *aff’d*, 564 A.2d 1137 (Del. 1989).

⁶² *M.G. Bancorp. Inc. v. LeBeau*, 737 A.2d 513, 524 (Del. 1999).

⁶³ *Union Ill. 1995 Inv. Ltd. P’ship v. Union Fin. Group, Ltd.*, 847 A.2d 340, 343 (Del. Ch. Jan. 5, 2004).

parties' experts about the value of Golden, in particular regarding the valuation of Golden in light of its future expected cash flows.

A. Deference To The Merger Price

As an initial matter, I find the price that VimpelCom paid for Golden in the merger to have no reliable bearing on my appraisal valuation. Golden argues that deference should be given to the merger price of \$105 per share because the Special Committee, assisted by outside advisors, was able to determine for itself the fair price of Golden, and because no other interested bidders came forward despite rumors of the potential merger that leaked to the market in July 2007. It is, of course, true that an arms-length merger price resulting from an effective market check is entitled to great weight in an appraisal. For example, in *Union Ill. 1995 Inv. Ltd. P'ship v. Union Fin. Group, Ltd.*, this court held that the merger price was the best indicator of fair value for appraisal purposes because the merger “resulted from a competitive and fair auction, which followed a more-than-adequate sales process and involved broad dissemination of confidential information to a large number of prospective buyers.”⁶⁴ But, as Gallagher, the Special Committee chairman, admitted at trial, the Special Committee did not engage in any sales efforts at all and instead concentrated solely on getting as good

⁶⁴ *Id.* at 357-58; see also *Highfields Capital, Ltd. v. AXA Fin., Inc.*, 939 A.2d 34, 59 (Del. Ch. 2007) (deferring to the merger price where an arms-length process was conducted, and no material impediments prevented another bidder from entering the sales process during an eight-month market check period).

a deal as it could from VimpelCom.⁶⁵ In essence, the Special Committee treated the context as one closer to a merger proposal by a controlling stockholder, given the reality that Golden's two largest shareholders — Altimo and Telenor — owned more of VimpelCom, the buyer, than Golden, the seller. Now, in appraisal, Golden acts as if the Special Committee was simply locking in a floor, and creating the perfect conditions for an effective passive market check. That after-the-fact litigation argument is without any factual foundation.

The reality is that any bidder peering in from the outside was confronted by a merger agreement that did not contain an active go-shop provision, and by a public statement by Golden's largest stockholder, Altimo, that it would not sell its 26% stake in another transaction.⁶⁶ Although Golden argues that Telenor was more equivocal about whether it was willing to sell its 18% stake, equivocation in this context does not help Golden. The idea that a rational third-party bidder would make a blind expression of interest in a situation where the economic interests of Golden's largest stockholders was more heavily weighted toward doing what was best for VimpelCom — a corporation on whose board they had seated eight designees — and each stood to gain hugely if the merger generated synergy gains for VimpelCom is not one that I accept. In a situation such as this, to actually entice bids, the Special Committee, if it was relying on a market check to obtain the highest value, should have affirmatively sought guarantees from

⁶⁵ Tr. at 249-50 (Gallagher).

⁶⁶ *Id.* at 161-63, 186 (Gallagher); *see also* Proxy at 20.

Altimo and Telenor that they would support a higher bid and used those guarantees to attract bidders. Instead, the Special Committee created a situation where other market players would rationally infer that the merger was the deal supported by Golden's two largest stockholders (and the three directors that Altimo and Telenor appointed to Golden's Board) whose interest in VimpelCom gave them special reasons to support that deal and not to sell into another transaction.

Golden also makes a more novel argument. It contends that the fact that only a single investor has brought an appraisal claim demonstrates the fairness of the merger price. But analyzing a deal price based on the size of the appraisal class is not supported by the appraisal statute itself, and would require this court to speculate about the reasons for the size of the appraisal class. Investors may choose to forego appraisal for any number of reasons. Appraisal claims are expensive to pursue, and the petitioners get none of the merger consideration during the pendency of the case, making such claims beyond the means of some investors to fund. And, certain institutional investors may be happy to take a sizeable merger-generated gain on a stock for quarterly reporting purposes, or to offset other losses, even if that gain is not representative of what the company should have yielded in a genuinely competitive sales process.

Critically, if market evidence were to be considered, the weight of the evidence suggests that the market believed that VimpelCom was getting a bargain. As discussed earlier, a number of market analysts felt that the \$105 price

undervalued Golden, and downgraded Golden after the merger was announced.⁶⁷ For example, Alfa Bank suggested that VimpelCom's offer undervalued Golden, and estimated that \$129 per share would have been a more appropriate price.⁶⁸ More importantly, VimpelCom's stock rose substantially from \$22.31 per share at the time that rumors about the proposed merger were leaked in July 2007 to \$41.98 on December 21, 2007, the day that the Merger Agreement was announced, although the overall market remained relatively stable.⁶⁹ When the definitive terms of the merger were announced on December 21, 2007, VimpelCom's stock rose \$2.60 for a price of \$41.98 per share, and continued to rise in the immediate days following the merger announcement to \$44.98.⁷⁰ These realities are noteworthy given that the stock price of an acquiring company will generally drop when it announces that it intends to merge with another company.⁷¹

For all these reasons, I reject Golden's argument that the merger price is a reliable indication of value.

⁶⁷ See *supra* page 15-16.

⁶⁸ See JX 309 (Alfa Bank, *VIP Report* (Jan. 15, 2008)) at 1; Gompers Report at 22.

⁶⁹ See *supra* note 56; Sherman Cross Examination Demonstrative 4; Tr. at 1050 (Sherman).

⁷⁰ *Id.*

⁷¹ See, e.g., MATTHEW TAGLIANI, *THE PRACTICAL GUIDE TO WALL STREET: EQUITIES AND DERIVATIVES* 64 (2009) (noting that the "standard reaction to the announcement of a merger is that the stock of the acquiring company drops in price while that of the target rises"); Nandkumar Nayar & Jeannette Switzer, *Firm Characteristics, Stock Price Reactions, and Debt as a Method of Payment for Corporate Acquisitions*, 37 *QUARTERLY J. OF BUS. & ECON.* 51, 52 (1998) (stating that "the announcement of an acquisition for stock typically is associated with a drop in stock price for the acquiring firm") (citations omitted).

B. The Experts' DCF Analyses

The petitioners argue that the fair value of Golden as of February 28, 2008 (the “Valuation Date”) was \$138.37 per share.⁷² Golden, on the other hand, argues that the \$105 merger price is generous because \$88.14 is the fair value of Golden as of the Valuation Date.⁷³ The parties’ assertions are based on the reports of their valuation experts — Gompers and Sherman.⁷⁴ As I noted earlier, neither Sherman nor Gompers is an expert in Russia or in the telecom industry generally, although Sherman has more experience in conducting valuations of telecom companies in the context of litigation.⁷⁵

Both experts conducted a DCF analysis, a comparable companies analysis, and a comparable transactions analysis. But, both give little weight to the latter two analyses. Sherman weighted his comparable companies and transactions analyses at only 20% of his conclusion.⁷⁶ Gompers did not give those methods any actual weight in his valuation, using them only as a check on his DCF findings.⁷⁷ Both experts admitted that there were few, if any, appropriate

⁷² JX 725 (Letter from Paul A. Gompers to John L. Reed, Esquire (Aug. 28, 2009)) (“Gompers Supplement”); Tr. at 435 (Gompers).

⁷³ JX 727 (Letter from Marc B. Sherman to David M. Zensky, Esquire (Aug. 3, 2009)) (“Sherman Supplement”).

⁷⁴ *See supra* page 3-4.

⁷⁵ *Id.*

⁷⁶ Sherman Report at 77-78. Giving 100% weight to his DCF analysis, Sherman’s estimate of Golden’s fair value is \$88.58 per share. *See* Sherman Supplement at Updated Table 1.

⁷⁷ Gompers Report at 6.

comparables for Golden and the Golden-VimpelCom merger.⁷⁸ As important, neither of the experts convinced me that he really knew Golden deeply as a company, much less that he knew anything substantial about the sparse number of potential comparables, and their expert reports and the information they use to support them do not, in my view, provide me with any reliable basis to come up with a sound group of comparable companies or transactions myself.⁷⁹ The lack of confidence I have in this aspect of the experts' analyses is confirmed by the slight weighting they gave these methods. I am also not going to pretend that I am personally qualified or have the time to engage in a from-scratch construction of comparable companies and transactions analyses using such public resources as I could obtain.

Therefore, rather than engage in a speculative exercise based on tinkering with analyses that the two experts themselves essentially do not stand behind, I concentrate my valuation analysis on deploying the method that each expert

⁷⁸ Sherman Report at 71; Tr. at 308-09 (Gompers) (stating that Golden lacked “true comparables”), 1024 (Sherman) (explaining his view that Golden had only one true comparable).

⁷⁹ Despite supposedly applying similar methodologies, Sherman used just one company in his comparable company analysis, while Gompers used five. Gompers and Sherman only agreed on one company as a common comparable for Golden. That company is Comstar-United Telesystems (“Comstar”), a Russian integrated telecommunications company that operates in Russia and the CIS. Happily for Golden, Comstar’s metrics lagged Golden on almost all measures. *See* Gompers Report at Ex. 15; JX 729 (Rebuttal Report of Paul A. Gompers) (“Gompers Rebuttal”) at 33; Tr. at 1055-56 (Sherman). For example, both Golden and VimpelCom markedly outpaced Comstar in the pre-merger period, and after rumors of the merger had leaked into the market. Tr. at 1055-57 (Sherman) (citing Petitioners’ Demonstratives 7 and 8). Sherman rejected as comparable another telecom company selected by Gompers — OAO Rostelecom — that would have generated a higher valuation for Golden if used in a sample.

believed was the most reliable and pertinent — the discounted cash flow method — and use that as the basis for my award.⁸⁰

The components of a DCF analysis are familiar, and do not require repetition.⁸¹ Both experts largely adopted the projections of Golden’s management, including the Five Year Plan, which I have already found to be reasonable.⁸² This provides the court with a largely-agreed upon projection of Golden’s estimated cash flows for the period from 2008 to 2012.

The major area of disagreement between the experts about Golden’s cash flows is the terminal growth value to be used in applying the Gordon growth model version of the DCF, which has been employed by both experts. The smaller argument about the cash flows is the tax rate to be applied to them.

After resolving those arguments, I then address the two critical differences the experts have that are relevant to determining the rate at which Golden’s expected future cash flows are to be discounted back to present value. Both experts purport to apply the capital asset pricing model (“CAPM”). The weighted

⁸⁰ See *Gesoff v. IIC Indus. Inc.*, 902 A.2d 1130, 1155 n.138 (Del. Ch. 2006) (noting that “[t]he DCF method is frequently used in this court” and will be given “great, and sometimes even exclusive, weight when it may be used responsibly” (quoting *Andaloro*, 2005 WL 2045640, at *9)).

⁸¹ For the standard description, see RICHARD A. BREALEY & STEWART C. MYERS, *PRINCIPLES OF CORPORATE FINANCE* 75-80 (7th ed. 2003).

⁸² See *supra* pages 6-9. The key difference is that Gompers uses the management projections provided to Credit Suisse for its Fairness Opinion, while Sherman used earlier forecasts. See *Gompers Rebuttal* at 10. The two sets of projections are very close, and differ in ways that are not relevant to my findings about the value of Golden. But I find that the projections given to Credit Suisse are more reliable because they (1) are more recent, and (2) undergirded the Credit Suisse Fairness Opinion that was presented in the Proxy.

average cost of capital they derive, however, is different because the equity risk premium and beta they use in coming up with their cost of equity diverge markedly.

1. Terminal Growth Rate

In a DCF analysis, future cash flows are projected for each year during a set period, typically five years.⁸³ After that time, a terminal value is calculated to predict the company's cash flow into perpetuity. Generally, once an industry has matured, a company will grow at a steady rate that is roughly equal to the rate of nominal GDP growth.⁸⁴ In this case, the experts had access to assumptions by Golden's management as to its growth rate for a full ten years. The first five years (2008 to 2012) of those assumptions were quite specific projections of future cash flows in the Five Year Plan, and the next five years were based on an assumption that Golden would grow at the rate of Russia's overall GDP. That is, the management projections assumed that Golden would keep up with Russia's overall growth during that period, even though, as I shall note, that is a conservative assumption. A viable company should grow at least at the rate of

⁸³ See *Cede & Co. v. JRC Acquisition Corp.*, 2004 WL 286963, at *4 (Del. Ch. Feb. 10, 2004).

⁸⁴ See MICHAEL C. EHRHARDT & EUGENE F. BRIGHAM, CORPORATE FINANCE: A FOCUSED APPROACH 242 (2009) ("Expected growth rates vary somewhat among companies, but dividend growth for most mature firms is generally expected to continue in the future at about the same rate as nominal gross domestic product."); JOSHUA ROSENBAUM & JOSHUA PEARL, INVESTMENT BANKING: VALUATION, LEVERAGED BUYOUTS, AND MERGERS & ACQUISITIONS 132 (2009) ("The perpetuity growth rate is typically chosen on the basis of the company's expected long-term growth rate, which typically tends to be within a range of 2% to 4% (i.e., nominal GDP growth)."); see also Gompers Report at 42.

inflation and, as Golden's expert Sherman admits,⁸⁵ the rate of inflation is the floor for a terminal value estimate for a solidly profitable company that does not have an identifiable risk of insolvency.⁸⁶ Sherman argues that the growth rate of the Russian economy will decline significantly in 2017 and beyond, and that Russia will reduce its inflation rate to a level below that which the United States has experienced in the last century.⁸⁷ Nowhere in his report or at trial did Sherman explain the basis for his prediction, which also tends to conflict with his suggestion that the risk of revolutionary changes in Russia that could put Golden out of business hangs over Golden.⁸⁸ In other words, Sherman somehow suggests

⁸⁵ Tr. at 1082 (Sherman) (“As a general rule . . . practitioners look at GDP as the ceiling and inflation as the floor If . . . the inflation rate turns out to be greater than [the terminal growth rate], then [the company being valued] will disappear one day.”); Sherman Dep. at 159-60 (“Unless you have some specific reason to believe that a company is going to be a short term company, and short term for this purpose means a company that isn’t going . . . to last into perpetuity, then using the inflation rate is the appropriate . . . number to use as . . . the floor.”).

⁸⁶ See *Lane v. Cancer Treatment Ctrs. of Am., Inc.*, 2004 WL 1752847, at *31 (Del. Ch. July 30, 2004) (rejecting a terminal growth rate below inflation as unreasonable because “it must be assumed that [the company] would continue to grow at least at the rate of inflation”); PETER A. HUNT, *STRUCTURING MERGERS & ACQUISITIONS: A GUIDE TO CREATING SHAREHOLDER VALUE* 51 (2009) (“As a proxy for long-term growth, inflation assumes a company can pass along increases in its costs, but cannot necessarily increase its volume.”); SHANNON P. PRATT & ALINA V. NICULITA, *VALUING A BUSINESS: THE ANALYSIS AND APPRAISAL OF CLOSELY HELD COMPANIES* 248 (5th ed. 2008) (“If the company is in an industry subject to vigorous competitive pressure, with little prospect for real growth without large capital expenditures, then perpetual growth at the rate of expected long-term inflation may be reasonable (i.e., zero real growth.”); see also Gompers Report at 42; JX 731 (Rebuttal Report of Marc B. Sherman) (“Sherman Rebuttal”) at 14.

⁸⁷ Sherman Rebuttal at 17-18. For most of the 20th century, inflation in the United States averaged 3.5%. See Hoover Institution, Stanford University, *Facts on Policy: Historical Inflation Rates*, <http://www.hoover.org/research/factsonpolicy/facts/4804201.html> (last visited April 18, 2010).

⁸⁸ Tr. at 1118-1120 (Sherman) (discussing the binary risks associated with operating in Russia).

that Russia will whip inflation now and have a very low inflation, low growth economy, and that, despite the world-wide popularity of telecommunications-related products, Golden will grow only at that whipped rate of inflation.

But Sherman's position does not translate, in my view, into a reasonable approach to developing a terminal growth rate. Although Golden was a well-positioned, low-leverage firm that had a demonstrated history of profitability and above-average growth in an industry with above-average growth prospects in a market (the former Soviet Union) with above-average growth prospects, Sherman adopted a terminal growth rate for Golden based on his assumption about the rate of inflation. That is, Sherman assumed that as soon as the ten-year projection period ended, Golden would only grow with the rate of inflation in Russia. That is an unduly pessimistic assumption.

Not only that, Sherman used a 3% estimate for inflation, an estimate that he largely made up himself with no rational basis.⁸⁹ Notably, data from the EIU in February 2008 estimates Russian inflation to be an average of 3.9% from 2018 to 2030. For some unexplained reason, Sherman's terminal rate is below the floor. If Sherman is correct, it is not clear why VimpelCom was interested in buying Golden in the first place, as it was buying a firm that was not expected to even keep pace with Russia's overall growth, much less provide the above-market returns that, if the projected growth rate of the Russian telecommunications

⁸⁹ Tr. at 1082 (Sherman).

industry was consulted, might have been expected.⁹⁰ If the telecom industry in the United States, which grew at an annualized real rate of 9.3% from 1963 to 2003 while the annualized real growth rate of the U.S. GDP was just 3.3%, is any indication, the Russian telecom industry will exceed GDP growth for quite some time.⁹¹ Thus, I believe Sherman's approach is unduly pessimistic and reject it.

Although Gompers, perhaps even more than Sherman, had a less than ideal understanding of Golden itself, Gompers knew enough about Golden and the telecommunications industry in Russia and worldwide to come to a much more responsible estimate than Sherman did. Sherman gave too slight a weight to Golden's good financial health, solid record of growth, and to the growth prospects of the Russia telecommunications industry. By contrast, Gompers came to a measured conclusion that gave responsible, but not overenthusiastic, weight to each of these factors. Although the relevant factors might have supported a terminal growth rate equal to the long run growth rate of Russia's GDP, Gompers used a 5% terminal growth rate. Gompers' rate is the mid-point between the

⁹⁰ See, e.g., JX 206 (Aton Bank, *Golden Telecom: Triple-Pronged Growth Strategy Still Not Priced In* (Sept. 19, 2007)) at 10-11 (reporting that in 2006, the Russian telecom industry increased 32% year to year compared to the nominal GDP growth of 29%, and projecting the Russian telecom industry to grow at a 20% rate from 2006-2010 compared with a projected nominal GDP growth of 15%); see also JX 168 (Renaissance Capital, *supra* note 27) at 20 ("We forecast the Russian corporate telecoms market to grow at a 22% CAGR over 2006-2010 . . .").

⁹¹ See JX 316 (TIM KOLLER, MARC GOEDHART & DAVID WESSELS, *MEASURING AND MANAGING THE VALUE OF COMPANIES* 154-55 (5th ed. 2005)).

forecasted long-term Russian nominal GDP growth of 6.2%, and a forecasted inflation rate to 2030 of 3.9%.⁹²

Gompers' use of a 5% terminal growth rate is based on a respected source of such projections, the EIU. That approach was measured and realistic given that the Russian telecom industry was expected to grow at a rate significantly exceeding the Russian GDP.⁹³ The reasonableness of expecting the Russian telecommunication sector to outpace the overall Russian economy is buttressed by actual history in the United States, where the telecom industry has grown at nearly three times the rate of the United States GDP.⁹⁴ Gompers' estimate accounts for the fact that the Russian telecommunications market is continuing to grow and that, with the increase of the broadband and Wi-Fi markets, companies such as Golden would have the opportunity to reach new customers and offer bundled services to existing customers. By choosing the average of the Russian GDP and inflation rate, Gompers accounted for the very real possibility that Golden will be close to (or in my view, likely exceed) the GDP rate for a period of time, but then,

⁹² Gompers Report at 42-43 (citing the EIU Forecast Data for February 2008).

⁹³ See, e.g., JX 168 (Renaissance Capital, *supra* note 27) at 20 (explaining that the Russian corporate telecoms market would grow at a 22% CAGR from 2006 to 2010); JX 206 (Aton Bank, *supra* note 90) at 10 (explaining that the Russian telecom industry was expected to continue to grow faster than the Russian GDP after 2006, and was "set to continue expanding by double digits").

⁹⁴ Gompers Rebuttal at 24 (citing JX 316 (Koller, *supra* note 91)).

as the telecom market matures, settle closer to the inflation rate. I therefore adopt a 5% terminal growth rate.⁹⁵

2. Golden's Tax Rate

Sherman and Gompers also disagree about the tax rate to use. The tax rates in the Five Year Plan for 2008 to 2012 ranged from 30.1% to 35.3%, and the tax rate Credit Suisse used in connection with the DCF analysis undergirding its Fairness Opinion was 30%.⁹⁶ Gompers adopted the tax rate used by Credit Suisse in the Fairness Opinion. He also reasoned that a 30% tax rate was “consistent with the numbers forecasted by [Golden's] management.”⁹⁷ Sherman, on the other hand, selected a tax rate of 31.6% based on the predictions of Golden's management, and on Golden's average historical tax rate for 2004 to 2006,⁹⁸ which ranged from 23.7% to 32.4%. Gompers simply adopted Credit Suisse's calculations without explaining convincingly why those calculations are reasonable.⁹⁹ By contrast, Sherman adjusted management's projections to reflect the average of Golden's historical tax rate, a rate that is at the conservative end of management's predictions, which called for tax rates ranging from 30.1% to

⁹⁵ Cf. *Lane*, 2004 WL 1752847, at *26 (adopting a 5% terminal growth rate by combining a 4% rate of inflation with a 1% growth rate for a company that had limited opportunities for growth).

⁹⁶ Five Year Plan at 25; Fairness Opinion at 15.

⁹⁷ Gompers Report at 40.

⁹⁸ Sherman Report at 59.

⁹⁹ Tr. at 470 (Gompers).

35.3% for the period from 2008 to 2012.¹⁰⁰ I therefore adopt Sherman’s tax rate of 31.6% for purposes of my DCF analysis.

3. Equity Risk Premium

To figure out the cost of capital by which to discount Golden’s future cash flows, both Sherman and Gompers had to come up with a cost of equity. One of the two major sources of disagreement between the experts was over what equity risk premium (“ERP”) to use.¹⁰¹ Sherman relied on an ERP of 7.1%. The ERP Sherman selected is from the 2008 Ibbotson SBBI Valuation Year Book, which is based on long-term historical data from 1926 to year-end 2007.¹⁰² Gompers used an ERP of 6.0%, which he selected based on his teaching experience, the relevant academic and empirical literature, and the supply side ERP reported in the 2007 Ibbotson Yearbook.¹⁰³

In a theme that will be continued when I next examine the debate about beta, the parties spar about the approach to take, with the petitioners portraying themselves as using the most reliable, market-accepted method because their method is “forward looking” and thus consistent with the purpose of this valuation, which is to determine the value of Golden based on its prospects in a future, not past, market. For its part, Golden portrays the petitioners as advancing

¹⁰⁰ Five Year Plan at 25; Tr. at 967 (Sherman).

¹⁰¹ The ERP is the premium an investor should receive for the risk associated with investing in equities versus riskless assets, such as U.S. government short-term bonds. *See* SHANNON PRATT & ROGER GRABOWSKI, *COST OF CAPITAL: APPLICATIONS AND EXAMPLES* 89, 91 (3rd ed. 2008); Sherman Rebuttal at 14; Gompers Report at 37.

¹⁰² JX 501 (IBBOTSON ASSOC., SBBI: 2008 YEARBOOK VALUATION (2008)) (“Ibbotson Yearbook”); Tr. at 938 (Sherman).

¹⁰³ Gompers Report at 38.

novel, unaccepted approaches that are more speculative and less reliable than the more traditional approaches it advances.

In reality, the debate is not nearly so stark. Although the petitioners, through Gompers, advance techniques that are designed to be forward-looking, those techniques are of course entirely based on using past data to predict the future, just like the techniques advanced by Golden, through Sherman. Each technique depends to a certain extent on taking some combination of past data and using it to predict a necessarily uncertain future.

In the case of their debate about the ERP, that reality can easily be discerned. For its part, Golden uses the most traditional estimate of the ERP, the historic ERP published by Ibbotson. That estimate is based on Ibbotson's consideration of stock returns from 1926 to the present (or as relevant to this case, to year end 2007). Sherman testified that the Ibbotson historic ERP (the "Historic ERP") is the best estimate of predicting long-term future performance because it relies on a long period of history,¹⁰⁴ while a predictive ERP is "an attempt at predicting the future as opposed to just letting history be the guide"¹⁰⁵

Golden buttresses its reliance upon the Historic ERP with three primary sources. First, Golden cites an article by Peng Chen and James Harrington which explains that "the historical equity risk premium estimate is a very solid estimate, and should continue to serve as a starting point for applying the equity risk premium in

¹⁰⁴ Ibbotson Yearbook at 80.

¹⁰⁵ Tr. at 945 (Sherman).

portfolio optimization and business valuation.”¹⁰⁶ Second, Golden cites an article by James Hitchner and Katherine Morris which states that “[i]n practice, valuation analysts rarely rely on predictive models to forecast equity risk premiums. Risk premium components based directly on historical stock market return data are widely accepted and relied upon by the valuation community.”¹⁰⁷ Finally, Golden relies on Ibbotson’s 2008 Valuation Yearbook, pointing to a section where Ibbotson states that both Ibbotson’s supply side and Historical ERP estimates are “from actual market statistics over a long historical period of time.”¹⁰⁸ Crucially, all three of these sources include both historic and supply side ERP models.¹⁰⁹

The petitioners, through Gompers, say that continued rote use of the Historic ERP will lead to unreliable results. Speaking most directly to that point, Gompers notes that Ibbotson and his co-authors have themselves developed an alternative model to forecast the long-term expected equity return because of their view that the historic approach wrongly assumes that the relationship between stocks and bonds observed in the past would remain stable into the future.¹¹⁰ As Gompers notes, Ibbotson indicates “[o]ver the long run, the equity return should

¹⁰⁶ JX 724 (Peng Chen & James Harrington, *Ibbotson Authors Discuss Historical and Supply Side Estimates of ERP* (Jan. 2008), available at <http://www.bvlibrary.com/BVUpdatePlus/bvuPlusArticles3Print.aspx?docRef=9543>).

¹⁰⁷ JX 801 (James Hitchner & Katherine Morris, *Cost of Capital Controversies: It’s Time To Look Behind the Curtain*,” (Jan. 2008), available at <http://bvlibrary.com/BVUpdatePluls/bvuPlusArticles3Print.aspx?docRef=5089>).

¹⁰⁸ Ibbotson Yearbook at 98.

¹⁰⁹ *Id.* at 92 (explaining the benefits of a supply side ERP); JX 724 (Chen & Harrington, *supra* note 106) at 4 (noting that the historic and supply side “models do not conflict” and will “converge over time”); JX 801 (Hitchner & Morris, *supra* note 107) at 5 (describing a variety of approaches to ERP, including supply side risk premiums).

¹¹⁰ Ibbotson Yearbook at 71.

be close to the long-run supply estimate.”¹¹¹ The supply side estimate that Ibbotson publishes uses the Ibbotson historical sample from 1926 to the present, but estimates which components of the equity risk premium are driven by the price-to-earnings ratio of a stock, and which components are driven by expected earnings growth.¹¹² The supply side rate assumes that actual returns to equity will track real earnings growth, not the growth reflected in the price-to-earnings ratio.¹¹³

In arguing that continued use of the simple Historic ERP is unjustifiable, Gompers has substantial support in the professional and academic valuation literature.¹¹⁴ Shannon Pratt, for example, has urged his readers who still use an ERP of 7% to “immediately make a downward adjustment to reflect recent research results,”¹¹⁵ and has written that the “ERP as of the beginning of 2007 should be in the range of 3.5% to 6%.”¹¹⁶ Gompers also cites to a survey of finance professors, which found that the mean ERP taught by 369 professors is

¹¹¹ JX 109 (Robert G. Ibbotson & Peng Chen, *Long-Run Stock Returns: Participating in the Real Economy*, FIN. ANALYSTS J. (Jan./Feb. 2003)) at 88, 94; Ibbotson Yearbook at 92 (stating the same principle).

¹¹² Ibbotson Yearbook at 95-96, 98 (discussing how the supply side model is structured); Tr. at 420-22 (Gompers).

¹¹³ *Id.* at 96 (“[T]he main difference between the historical and forecast equity returns is the exclusion of growth in P/E ratio in the forecasted earnings model.”).

¹¹⁴ *See, e.g.*, JX 113 (Jeremy Siegel, *Perspectives on the Equity Risk Premium*, FIN. ANALYSTS J. (2005)) at 62-64, 70 (setting forth the “persuasive reasons [that] support a lower forward-looking real return on equity than the return found in the historical data”).

¹¹⁵ JX 319 (Shannon Pratt, “Valuers Should Lower Equity Risk Premium Component of Discount Rate,” *Business Valuation and Resources*, BUSINESS VALUATION UPDATE (Nov. 2003)).

¹¹⁶ JX 318 (PRATT, COST OF CAPITAL, *supra* note 101).

5.96%,¹¹⁷ and a report of JP Morgan estimating the ERP to be in the range of 5% to 7%.¹¹⁸ Although the surveys cited by Gompers are not so compelling as to be conclusive, they suggest that current academic thinking puts the ERP closer to 6.0% than to 7.1%.

The question is not free from doubt, but I believe that Gompers has the better of the argument for the following reasons. First, to cling to the Ibbotson Historic ERP blindly gives undue weight to Ibbotson's use of a single data set. 1926 might have been a special year because, for example, that was the year when Marilyn Monroe was born, but it has no magic as a starting point for estimating long-term equity returns. If one is going to use an approach that simply involves taking into account historical equity returns, then one has to consider that very well-respected scholars have made estimates in peer-reviewed studies of long-term equity returns for periods much longer than Ibbotson, and have come to an estimate of the ERP that is closer to the supply side rate Ibbotson himself now publishes as a reliable ERP for use in a DCF valuation.¹¹⁹ For example, Professor Jeremy Siegel has examined the period from 1802 to 2004 and come up with an

¹¹⁷ JX 114 (Ivo Welch, *The Consensus Estimate For the Equity Premium by Academic Financial Economists in December 2007* (Jan. 2008), available at <http://ssrn.com/abstract=1084918>) at Table 2. Of the professors who responded to the survey, the middle 50% of respondents teach an ERP between 4% and 6%. Of the other fifty percent of respondents, five percent teach an ERP of 2-4%, twenty percent teach 4-5%, twenty percent teach 7-8.5%, and five percent teach 8.5-20%. *Id.*

¹¹⁸ JX 112 (JP Morgan, *The Most Important Number in Finance: The Quest for the Market Risk Premium* (May 2008)) at 2.

¹¹⁹ See JX 828 (Michael Devaney, *Will Future Equity Risk Premium Decline?*, J. OF FIN. PLANNING (Apr. 2008)) at 47 (finding that a mean equity risk premium of 5.5% covers the period from 1870-2002).

ERP of 5.36%.¹²⁰ Likewise, Professors Eugene Fama and Kenneth French considered the period from 1872 to 2000, and calculated an average ERP of 5.57%.¹²¹

Relevantly, the literature also suggests that the ERP for companies operating in foreign markets is, if anything, lower than the Historic ERP for a domestic company.¹²² Importantly, these studies reach results that are consistent with the actual logic used by Ibbotson in recent volumes. Although it is true that Ibbotson does not disavow the use of the Historic ERP as a basis for valuing

¹²⁰ JX 113 (Siegel, *supra* note 114) at 63.

¹²¹ JX 833 (Eugene Fama & Kenneth French, *The Equity Premium*, 57 J. OF FIN. 637, 638 (Apr. 2002)) (considering different measures of the expected ERP utilized by the market, such as the dividend growth model, and comparing those measures to the historical ERP). Golden argues that, because Fama and French advocate a three-factor model that differs from the CAPM in determining the cost of equity, their ERP findings cannot be compared to those of Ibbotson. But, whatever differences may exist between the CAPM and Fama-French models for calculating the cost of equity, those differences do not affect the applicability of Fama and French's ERP estimate, which is an input to both models. *See* BREALEY & MYERS, *supra* note 81 at 208-09; *see also* PRATT, COST OF CAPITAL, *supra* note 101 at 102 (discussing the ERP calculated by Fama and French from 1951 to 2000 and comparing it to other ERPs calculated by, among others, Ibbotson). Nothing suggests that the ERPs derived by Fama and French are only appropriately used in the Fama-French, and not the CAPM, model.

¹²² *See, e.g.*, JX 318 (PRATT, COST OF CAPITAL, *supra* note 101) at 109 (noting that equity returns and historical equity premiums for foreign companies should be adjusted *downward* to account for the fact that corporate cash flows in most foreign countries typically exceed investors' expectations (citing Dimson, Marsh & Stauton, *Global Evidence on the Equity Premium; The Worldwide Equity Premium: A Smaller Puzzle*, EFA 2006 Zurich Meetings Paper, April 7, 2006; *Global Investment Returns Yearbook 2007*)); JX 113 (Siegel, *supra* note 114) at 63 (explaining that due to the "survivorship bias," ERPs based on the United States market typically overstate the returns on equities, particularly in markets "where stocks have faltered or disappeared outright, such as they did in Russia"); *see also* Aswath Damodaran, *Equity Risk Premiums (ERP): Determinants, Estimation and Implications* at 12, available at <http://ssrn.com/abstract=1274967> (describing a view "backed by a study of large equity markets over the twentieth century" that "[t]he historical risk premium obtained by looking at U.S. data is biased upwards because of a survivor bias").

corporations on a going forward basis, the text is utterly devoid of any explication of why the Historic ERP should be used. By contrast, the 2003 article by Ibbotson and Chen explains that “investors’ expectations for long-term equity performance should be based on the supply of equity returns produced by corporations” because “[t]he supply of stock market returns is generated by the productivity of the corporations in the real economy.”¹²³ And, Ibbotson’s 2008 Valuation Yearbook makes a strong argument for the supply side method by stating that “over the long run, equity returns should be close to the long-run supply estimates.”¹²⁴

Ibbotson’s reasoning comports with the strong weight of professional and academic thinking, which is accurately represented by Gomper’s view that the most responsible estimate of ERP is closer to 6.0% than 7.1%. I come to this conclusion with full realization that any estimate of ERP is just that, an estimate of something that is highly uncertain, and that the relevant academic and professional community — and not this court — should develop the accepted approach. Sherman’s approach has met with the approval of this court on prior occasions,¹²⁵ but, when 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, this court’s duty is to recognize that practice if, in the court’s lay estimate, the practice is the

¹²³ JX 109 (Ibbotson and Chen, *supra* note 111) at 94.

¹²⁴ Ibbotson Yearbook at 92.

¹²⁵ See *In re PNB Holding Co. S’holder Litig.*, 2006 WL 2403999, at *30 (Del. Ch. Aug. 18, 2006) (choosing to adopt a historical ERP of 7% because a long-term supply side ERP had not yet gained “universal acceptance”).

most reliable available for use in an appraisal.¹²⁶ Here, there is solid academic and professional thinking that supports the view that 6.0% is the most responsible ERP to deploy, and I do so. In reaching this conclusion, I give heaviest weight to the published literature, but also find the admittedly squishier academic survey data supportive. Although that data is far from perfect, it does reveal that the weight of academic thinking at our nation’s finest finance departments places the ERP much nearer to Gompers’ estimates than Sherman’s. For all these reasons, I adopt Gompers’ ERP of 6.0%.

4. Beta

In round two of their theoretical debate, Gompers and Sherman spar over what beta to use in calculating Golden’s cost of equity capital.¹²⁷ As in the prior debate, Gompers claims that he is using the best forward-looking, academically

¹²⁶ See *Weinberger v. UOP, Inc.*, 457 A.2d 701, 713 (Del. 1983) (interpreting 8 *Del. C.* § 262 to require that appraisal actions “include proof of value by any techniques or methods which are generally considered acceptable in the financial community and otherwise admissible in court”); *Union Ill.*, 847 A.2d at 363 (adopting the Fama-French approach to cost of capital over the more widely accepted CAPM approach because the court determined the former approach to be more reliable and more appropriate for use in that valuation of a regional bank). As in any complex area involving the prediction of future human events, one can expect that academic and professional thinking on the expected ERP will not remain static but will evolve as more data and additional thinking is done. That is the nature of things. What, of course, makes the use of such thinking of piquancy in this context is that ideas that academics and professionals throw around to create ranges of value are used by a law-trained judge to come to a single point estimate of value that could require a party to pay another party millions of dollars. The law-trained judges who must perform such analyses are more conscious than anyone of the inherent risk of error in such an endeavor, and indeed of the reality that no one can really tell if an error was made. That is why many of us eschew the hoary term “intrinsic value,” a term best reserved for judgments of the divine than ones made by human judges.

¹²⁷ Sherman Rebuttal at 10.

and professionally sound approach while Sherman is using a backward-looking, outdated approach. Again, the petitioners overstate their case and, in this instance, also fail to put forward reliable academic and professional support for their position.

It is true that Sherman uses a more traditional approach to beta. Sherman uses the Bloomberg five-year weekly historic beta for Golden of 1.32.¹²⁸ The Bloomberg beta is based on a publicly-available regression calculation, and is computed in the standard way by examining the co-variance of a company's stock performance with that of the stock exchange on which the firm's shares are listed.¹²⁹ Although there is a fairly substantial amount of imprecision and a general disagreement in the finance industry and academia over the proper way to select a beta value,¹³⁰ the Bloomberg historic beta is considered to have a fair amount of predictive power, and to be a reliable proxy for unobservable forward-looking betas.¹³¹

Sherman argues that his use of a historic beta is appropriate because Golden's operating and capital structure would have remained substantially the same going forward as it had during the five years captured in the Bloomberg

¹²⁸ Sherman Rebuttal at 11; JX 465 (Bloomberg Historical Beta for Golden Telecom).

¹²⁹ Sherman Report at 62 n.200.

¹³⁰ See JX 106 (Robert Bruner et al., *Best Practices in Estimating the Cost of Capital: Survey and Synthesis*, FIN. PRACTICE AND EDU. (Spring/Summer 1998)) at Ex. 4 (showing that beta values for a sample company given by Bloomberg, Value Line, and Standard and Poor's range from a mean beta of 1.03 to 1.24).

¹³¹ *Id.* at 19; Tr. at 603 (Gompers).

historical beta.¹³² Sherman also accurately points out that the Bloomberg historical beta for Golden remained relatively stable during the five year period, suggesting that the market had a good bead on its systematic risk.¹³³

By contrast, Gompers eschews reliance on Golden's historical beta and advocates a lower beta of 1.2, based on a so-called predictive beta from the financial consultancy MSCI Barra ("Barra").¹³⁴ Gompers argues that his approach is forward-looking and more reliable because beta estimates are not stable over long periods of time, and thus the use of a historical beta is not the best basis for predicting the future, especially because there is some evidence that the betas of companies tend to eventually revert towards the mean.¹³⁵ Gompers also claims that because Golden was seeking to evolve its business strategy from one heavily reliant on acquisitions for growth toward one that was less dependent on M&A and more on organic growth, Golden's historical beta is not a good predictor of its future beta.

The petitioners ask that if this court declines to adopt the Barra beta, a Bloomberg adjusted beta of 1.17 be used, but it is not clear why they advocate the Bloomberg adjusted beta as an appropriate alternative to the Barra beta. Aside from the fact that the Bloomberg adjusted beta produces a value close to 1.2, the methodology used by Bloomberg to adjust the beta value bears no apparent

¹³² Tr. at 913 (Sherman).

¹³³ Sherman Rebuttal at 11-13.

¹³⁴ Gompers Rebuttal at 18.

¹³⁵ *Id.* at 17.

relationship to that used by Barra. Unlike the 13-factor Barra model, Bloomberg uses only two factors for its adjusted beta, giving 66% weight to a corporation's historic beta, while taking into account the possibility of later mean reversion by giving 33% weight to 1, or the average market beta.¹³⁶

This battle of the experts is one that I am poorly positioned to resolve, and it appears unlikely that a finance professor would fare any better. Even after asking the parties to go back and submit relevant literature on beta, and even after doing an independent review, I admit to finding no literature that sheds reliable light on this question of whether to use a historical or the supposedly forward-looking Barra beta. The standard texts do not explore the reliability of different approaches to calculating beta in any useful depth.¹³⁷ I suppose that is not surprising because most practitioners who use beta are not looking for precision but for a reasonably reliable tool to make range of value estimates. But, whatever the reason, the reality is that the available literature is far from helpful, and does not aid Gompers or his client, the petitioners.

¹³⁶ JX 106 (Bruner, *supra* note 130) at 21.

¹³⁷ See, e.g., BREALEY & MYERS, *supra* note 81 at 173-75, 232-34 (defining beta, and giving a cursory discussion of how beta reflects market sensitivity, and how beta is calculated relative to foreign markets for foreign investments in the United States); PRATT, VALUING A BUSINESS, *supra* note 86 (discussing beta as a measure of systematic risk, extreme betas that are above and below the average beta of 1.0, beta measurement problems, and listing problems that arise when applying betas estimated for guideline companies to the valuation of the subject company); BRADFORD CORNELL, CORPORATE VALUATION: TOOLS FOR EFFECTIVE APPRAISAL AND DECISION MAKING 219-22 (1993) (noting that certain analysts adjust beta toward 1.0, or toward the industry average, but stating that a more detailed discussion was “beyond the scope of [the] book”).

Gompers touts the Barra beta as one that has been relied upon by the financial community for equity valuations.¹³⁸ I accept that that is the case, although I also recognize, as Gompers does, that the use of the Bloomberg historical beta is also a common, indeed probably more common, practice.¹³⁹ But for several reasons that I now explain, Gompers has not given me the confidence to embrace the Barra beta technique as reliable one.

For starters, the Barra forecasting model is proprietary, and cannot be reverse-engineered. The Barra predictive beta, which is a forecast of a stock's future looking beta using past data, is based on a thirteen-factor model,¹⁴⁰ but the weight given to each of the factors is not publicly available.¹⁴¹ In fact, Barra has used three different versions of its model without explaining why or what changes have been made,¹⁴² and it is not apparent whether Barra retroactively updates its past beta calculations as it tinkers with? improves? changes for changes' sake? or lessens? the reliability of its model. Consistent with these realities, Gompers himself does not fully understand the details of how the Barra model works and,

¹³⁸ Tr. at 351-52; *see also* JX 106 (Bruner, *supra* note 130) at 20 (stating that “[t]he best known provider of fundamental beta estimates is the consulting firm BARRA”); JX 115 (Scott Widen, *Delaware Law, Financial Theory and Investment Banking Valuation Practices*, 4 NYU J. OF L. & BUS. 579, 585-86 (2008)) (citing numerous sources for the notion that “[m]any investment banks now use predicted Barra betas in their fairness opinion analyses”).

¹³⁹ Tr. at 618 (Gompers).

¹⁴⁰ The thirteen factors used in Barra's model include: volatility, momentum, size, size nonlinearity, trading activity, growth, earnings yield, value, earnings variability, leverage, currency sensitivity, dividend yield, and a non-estimation universe indicator. *See* JX 117 (BARRA, RISK MODEL HANDBOOK UNITED STATES EQUITY: VERSION 3 75-76 (1998)).

¹⁴¹ *Id.* at 93 (explaining that the method of computing the Barra beta “is proprietary to Barra”).

¹⁴² Tr. at 616 (Gompers).

thus, I cannot rely on his advocacy of it. The only thing Gompers knows about the model is that it lists certain valuation-relevant factors, including factors relevant to the historical beta such as volatility, leverage, and trading activity, and throws them in a stew pot in undisclosed proportions to come up with an outcome.¹⁴³ Put simply, despite his impressive academic credentials, Gompers himself could not cook me up a Barra beta of Golden, Microsoft, or any other company if I asked him to do so.

In a critically important difference from the ERP controversy I just decided, the Barra beta's reliability is not buttressed by the weight of any reliable academic or professional literature. The only evidence that the petitioners have produced showing that the Barra beta has a greater reliability than other beta providers such as Bloomberg or Morningstar is a quarter-century old paper authored by Barr Rosenberg, the creator of the Barra beta.¹⁴⁴ No neutral academic support for the predictive power of the Barra beta has yet been published.¹⁴⁵ And, as discussed, the undisclosed recipe for the Barra beta has changed several times since the Rosenberg paper was published.

Finally, Gompers' advocacy of the Barra beta is inconsistent with a DCF valuation that Gompers submitted to this court in *Doft & Co. v. Travelocity.com*

¹⁴³ See *supra* note 140.

¹⁴⁴ See JX 111 (Barr Rosenberg, *Prediction of Common Stock Betas*, J. OF PORTFOLIO MGMT., Winter 1985) at 5-14 (discussing the overall predictive performance of the first Barra beta model).

¹⁴⁵ Tr. at 378-81 (Gompers).

*Inc.*¹⁴⁶ Tellingly, in that valuation, Gompers utilized a historic raw beta similar to Sherman's approach covering various time periods during the two-year period before the relevant merger,¹⁴⁷ which was lower than the Barra beta that would have applied to Travelocity at that time.¹⁴⁸ Gompers testified in this case that his opinion in *Travelocity* was in line with what he taught and understood about beta at that time and, since 2006, he has switched to using a Barra beta or an adjusted beta.¹⁴⁹ But, oddly, he cannot point to an epiphanic moment or any academic or other studies that prompted him to change his approach. In fact, the Barr Rosenberg article that Gompers predominantly relies on was published in 1985 — nineteen years before Gompers used a raw historic beta in *Travelocity*.¹⁵⁰ This is in strong contrast to the ERP question, where Gompers is able to cite a wealth of recent academic and professional writings that supports a lower ERP estimate.

I wish to emphasize that I do not reject the Barra beta for use in later cases. Rather, I decline to adopt the Barra beta for purposes of this appraisal, given both Gompers' inability to shed light on the inner workings of the Barra beta model and his unexplained shift from advocating the historical beta in *Travelocity* to the Barra beta in this case. If the Barra beta is to be used in appraisal proceedings, a more detailed and objective record of *how* the Barra beta works and *why* it is

¹⁴⁶ 2004 WL 1152338 (Del. Ch. May 21, 2004). The court in *Travelocity* declined to conduct a DCF analysis in determining the fair value of the company because the underlying management projections were unreliable. *Id.* at *5.

¹⁴⁷ See *Doft & Co. v. Travelocity.com, Inc.*, C.A. No. 19734, 309-10 (Sept. 25, 2003) (TRANSCRIPT); see also Tr. at 603-04 (Gompers).

¹⁴⁸ Tr. at 608-09 (Gompers).

¹⁴⁹ *Id.* at 744-46 (Gompers).

¹⁵⁰ JX 111 (Barr Rosenberg, *supra* note 144).

superior to other betas must first be presented. To this point, it is more persuasive to a judge to know that a testimonial expert who is an academic has written about the reliability of a valuation methodology in an academic study in a peer-reviewed journal than to be among those first privileged in the world to hear from the academic about that issue in his expert reports and seat-of-the-pants testimony in a valuation assignment for a self-interested litigation client.

Although I reject Gompers' use of a Barra beta, I am persuaded that the simple use of historical beta is not the best method to use in calculating Golden's cost of equity. Although beta is a somewhat metaphysical concept, the literature does tend to suggest that, as a matter of theory anyway, companies that are more unstable and leveraged, less established and financially and competitively secure, and in colloquial terms "riskier," should have higher betas.¹⁵¹ Betas can also take into account considerations like political risk to the extent they are priced by the market.¹⁵²

Given these realities, a more substantial, if still less than ideal, part of the valuation literature comes into play. As even Golden admits, there is support for

¹⁵¹ See, e.g., PRATT, COST OF CAPITAL, *supra* note 101 (explaining that companies with higher levels of debt are "riskier" than the equity of companies with less leverage); PRATT, VALUING A BUSINESS, *supra* note 86 ("Securities that have betas greater than 1.0 are characterized as aggressive securities and are more risky than the market."); JX 312 (Pablo Fernandez, *Are Calculated Betas Worth for Anything?*, IESE Business School, Working Paper (Oct. 16, 2008)) at 13 (pointing out a problem with historic betas that high-risk companies often have smaller historical betas, although riskier companies should have higher betas).

¹⁵² Tr. at 685 (Gompers) (explaining that, by accounting for the "historical correlation of the stock return with the market," the beta values account for political risk).

the notion that more extreme betas tend to revert to the industry mean over time.¹⁵³

The historical beta of Golden is quite high, especially given its low leverage, and might reflect, among other things, its geographic concentration in an emerging market with some higher risk of political instability, its high growth strategy and its position in the telecom sector.

But Sherman has premised his valuation of Golden on the notion that its growth will slow, its domestic market will become a place friendly for those desirous of Volcker-style inflation policing, and that Golden will become a steady, staid company. To my mind, this view is consistent with the notion that Golden will, over time, revert toward the telecom industry's typical beta.

Unlike Gompers, however, I do not believe the immediate use of a lower beta is in order. The record supports the conclusion that Golden will continue to engage in a good deal of M&A activity, will enter new product markets, and continue to operate in a market with some political risk.¹⁵⁴ Rather, the more

¹⁵³ See JX 318 (PRATT, COST OF CAPITAL, *supra* note 101) at 130 (stating that “[o]ver time, a company’s beta tends toward its industry’s average beta”).

¹⁵⁴ Although Golden had a substantial presence in the largest Russian cities as of the valuation date, there were substantially-sized markets it still wished to enter and new product markets it hoped to join. See JX 416 (Transcript of Golden’s Third Quarter Earnings Release Conference Call, *supra* note 18) (announcing that Golden’s growth strategy included expansion into thirty additional cities); Tr. at 814, 816-17 (Svetlichny) (explaining that Golden was exploring a number of smaller acquisitions before it was acquired by VimpelCom). The likelihood is that to do so, M&A activity would have remained an important element of its growth strategy, as would risky product launches. Even if Gompers were correct that Golden was shifting its strategy to one of predominantly organic growth, Gompers fails to explain why such a strategy would result in a lower beta. Beta values measure systematic risk, and it is not clear that organic growth is less risky than M&A. Furthermore, Gompers’ argument that the Barra, and not historical beta, would better account for this supposed strategy shift is belied by the fact

balanced approach is to give the predominant weight to Golden's historical beta, while giving some substantial weight to the industry beta.¹⁵⁵

In doing so, I reject Gompers' argument that if I decline to adopt the Barra beta, I should instead adopt a Bloomberg adjusted beta of 1.17, which begins with the historic beta used by Sherman and adjusts it towards 1.0 on the theory that "extreme" betas eventually revert toward the overall average market beta of 1.0.¹⁵⁶ As an initial matter, Gompers' advocacy of the Bloomberg adjusted beta is not

that Gompers selected a Barra beta from June 2007 while Golden's Five Year Plan announcing its strategy is from October 2007. *See* Gompers Report at 37.

¹⁵⁵ The petitioners argue that it is not appropriate to use an historic beta because such a beta gives weight to political risk, which was already accounted for by Golden's management in estimating Golden's future cash flows. But, although the Proxy explained that the Special Committee based its recommendation that Golden's shareholders accept VimpelCom's tender offer on factors that included "political uncertainty in the Russian market," and noted that risks inherent in the forward-looking statements in the Five Year Plan included "the political, economic and legal environment in the markets in which [Golden] operate[d]," Golden's cash flow projections did not incorporate any specific value for political risk. *See* Proxy at 27, 46; Tr. at 828-29 (Svetlichny) (explaining that the Five Year Plan's projected cash flows did not account for political risk because such "risks are . . . binary in nature" and could not "be predicted and incorporated"). Moreover, it is difficult to estimate what value to place on political risk; in the case of Russia, the only real concern in the record seemed to be about some radical change in which companies like Golden might be expropriated. Management could not really price that risk, but it may be, I cannot say for sure, that the reported beta does capture some of that risk and, if the market does that, I cannot see why this court should not consider that real-world valuation factor. I also think it odd that the petitioners would have courts, and I suppose all those performing valuations, parse betas for factors that might have also been accounted for (e.g., leverage or the riskiness of certain industries) in management estimates of cash flow. The petitioners have not explained how or why one would do that. By giving weight to the industry beta, I also take into account the idea that Sherman embraced, which is that Russia is becoming more, not less, like markets such as the United States in terms of inflation and other relevant factors. Thus, I am confident that I am not giving some undue weight to political risk by relying heavily on Golden's historical beta.

¹⁵⁶ *See* JX 311 (Marshall Blume, *Betas and Their Regression Tendencies*, 30 J. OF FIN. 785, 794 (1975)) (explaining that "extreme" betas "tend to regress towards the grand mean of all betas over time"); Tr. at 626 (Gompers).

convincing because he simply suggests it as an alternative to the Barra beta, without any rational linking of these two disparate methods.¹⁵⁷ Moreover, he offers no explanation as to why adjusting the Bloomberg beta to 1.0 makes more sense for Golden — a company with low leverage, fast growth, and consistent performance in the telecom sector — than the raw five-year beta or, to the extent there is a reversion, an industry-based beta.

In my view, no reliable literature or evidence was presented to show that the beta of a telecom company like Golden, which operates in a risky market, will revert to 1.0. Instead, it makes more sense that companies in emerging markets will become more like their industry peers in more mature markets.¹⁵⁸ That intuition is also line with the views of both Gompers and Sherman that Russia's growth rate will slow, its telecom industry will approach maturity, and that Golden's growth rate will eventually settle closer to the Russian rate of inflation.¹⁵⁹

According to the Ibbotson telecom (SIC 4813) beta, which gives the beta values for approximately 50 telecom companies that are traded in the United States including Golden, the median industry beta as of December 2007 was 1.45,

¹⁵⁷ See *supra* pages 41-42.

¹⁵⁸ See PRATT, COST OF CAPITAL, *supra* note 101 at 130 (stating that “[o]ver time, a company’s beta tends toward its industry’s average beta”).

¹⁵⁹ See *supra* pages 26-30; Sherman Report at 21-21, 31.

and the SIC composite beta was 1.24.¹⁶⁰ Similarly, the Bloomberg CUTL Index, which is a telecommunications index of companies traded on the NASDAQ, including Golden, puts the five year weekly industry beta at 1.249.¹⁶¹ Golden was a much larger, less levered company than the median company on the Ibbotson SIC 4813 list and, therefore, the composite beta of 1.24 is more appropriate than the median beta of 1.45.¹⁶² I adopt it as the industry beta for purposes of this analysis.

I find that a beta that gives 2/3 weight to the Bloomberg historic raw beta of 1.32 and 1/3 weight to the 1.24 industry beta is the best approach to this DCF analysis. By predominantly adopting the historic raw beta, I give weight to the fact that Golden presently operates in a riskier, emerging, high-growth market, while tempering that number to account for the evidence that Russia is normalizing and that Golden is a stable company that would eventually have had a beta closer to its more mature, NASDAQ-traded peers. I thus apply a beta of 1.29 to the DCF analysis for a cost of equity of 12.3%.

¹⁶⁰ Sherman Demonstrative 26 (citing the Ibbotson Cost of Capital 2007 Yearbook December 2007 Quarterly Update, SIC Code 4813, and the Bloomberg CUTL Index as of Feb. 5, 2007); Tr. at 917-18 (Sherman).

¹⁶¹ Sherman Demonstrative 26; Tr. at 917-18 (Sherman).

¹⁶² The median company listed by Ibbotson in the SIC 4813 industry code has median sales of \$141 million and median total capital of \$389 million. Golden had sales over \$1 billion and its total capitalization was over \$4 billion. Tr. at 1135-36 (Sherman) (citing Sherman Cross Examination Demonstrative 18). And, the median company in the SIC 4813 had debt equal to 30% of its total capital, while Golden had debt equal to only 5% of its total capital. Sherman Cross Examination Demonstrative 18; 2007 10-K at 34; Tr. at 1137-38 (Sherman).

V. Conclusion

For the reasons I have explained, I adopt a terminal growth rate of 5.0%, a tax rate of 31.6%, an equity risk premium of 6.0%, and a beta of 1.29. I applied those inputs to Gompers' DCF model, and came up with a value of \$125.49 per share. The parties should confer and make sure that I used the model correctly. Assuming that I did, they should present a final judgment using an amount of \$125.49, plus interest from the Valuation Date to the date of payment at the legal rate, compounded quarterly.¹⁶³ If the dollar figure is different, they should explain why they use the different figure and submit the corrected amount. The parties shall submit an order within five days. IT IS SO ORDERED.

¹⁶³ 8 *Del. C.* § 262(h) (setting the interest rate for appraisal cases at the legal rate at 5% over the Federal Discount Rate, compounded quarterly, unless there is "good cause" to deviate from that rate).