## IN THE COURT OF CHANCERY OF THE STATE OF DELAWARE

## IN AND FOR NEW CASTLE COUNTY

| JOHN J. ANDALORO, et al., | C.A. No. 20336 |
| :---: | :---: |
|  |  |
| Plaintiffs, |  |
|  |  |
| v. |  |
|  |  |
| PFPC WORLDWIDE, INC., et al., |  |
|  |  |
| Defendants. |  |
|  |  |
| JOHN J. ANDALORO and |  |
| ROBERT J. PERLSWEIG, |  |
|  |  |
| Petitioners, |  |
|  |  |
| v. | C.A. No. 20289 |
|  |  |
| PFPC WORLDWIDE, INC., |  |
| a Delaware corporation, |  |
|  |  |
| Respondent. |  |

## MEMORANDUM OPINION

Date Submitted: July 8, 2005
Date Decided: August 19, 2005

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## I. Introduction

This is a consolidated appraisal and equitable fiduciary duty action. The case arises out of a merger in which PFPC Worldwide, Inc. ("PFPC") was acquired by its immediate parent PFPC Holding Corp. ("Holding") on March 6, 2003. The "Merger" was putatively consummated under 8 Del. C. § 253 as Holding held over 98\% of PFPC’s stock before the Merger. The Merger was accomplished with the blessing of PFPC's ultimate parent and Holding’s immediate parent, PNC Financial Services Group, Inc. ("PNC") and resulted in the elimination of the minority shareholders' position in PFPC for $\$ 34.26$ per share. Most of the minority stockholders held management positions at PFPC, while one large minority holder, Peter Lemay, obtained his shares when PFPC acquired his company, Automated Business Development Corporation, in May 2000.

As will be discussed, the manner in which the Merger was effected was unusual as Holding did not actually offer appraisal rights to the minority stockholders but originally conditioned its willingness to effect the Merger on the agreement by all the minority stockholders to waive any appraisal rights or other claims as a condition of receiving the Merger consideration. Nonetheless, two stockholders, petitioners (and plaintiffs) John J. Andaloro and Robert J. Perlsweig, did not accept these conditions and Holding nonetheless completed the Merger. Andaloro and Perlsweig filed a timely appraisal action on May 2, 2003. Later, on May 30, 2003, Andaloro and Perlsweig filed a second suit alleging that PFPC, PNC, and several of PNC's directors and officers, breached their fiduciary duties to the minority stockholders because of the manner in which the Merger
was effected. ${ }^{1}$ That suit was soon joined by several additional minority holders who had accepted the Merger consideration, and those stockholders seek, among other possible remedies, an award of quasi-appraisal damages. For purposes of simplicity, I refer to the various petitioners and plaintiffs simply as the "plaintiffs." I also refer to PNC, Holding, and PFPC collectively as the "defendants," regardless of their status as either or both a respondent or defendant.

The appraisal and entire fairness actions were consolidated. In the interests of simplifying the proceedings, the court determined to try the ultimate appraisal question first, with the hope that the outcome might provide a basis for resolving the entire dispute. In addition, the court gave the plaintiffs the opportunity to present for quantification any claim for rescissory damages. Therefore, an order was entered indicating that the trial would determine the "fair value of PFPC Worldwide, Inc. and its common stock on the Merger date [March 6, 2003], taking into account all relevant factors; and . . . the quantification of Plaintiffs’ request for rescissory damages . . . , provided that such amount must be supported by evidence existing in the discovery record."

By trial, the plaintiffs had abandoned any claim for rescissory damages by failing to present any specific quantification of an appropriate award. Thus, the five days of trial, and the voluminous submissions of the parties, focused exclusively on the question

[^0]of PFPC's fair value on the Merger date. This opinion sets forth the court's determination of fair value on the Merger date.

In the pages that follow, I explain how I reached the result I did. In coming to my valuation, I have had to stagger through a sandstorm of contending arguments, on all points great and small. Many of these playground tussles involve issues that emerge in the actual application of broad corporate finance principles that are commonly taught in academic institutions. The real world nitty-gritty use of those principles brings to the fore problems of measurement and theory that academics, and frankly, even real world businesspeople, have no rational reason to solve because they seek to use corporate finance principles to reach a reliable approximation of a range of values from which rational investment decisions can be made. The process of appraisal calling for the court to derive a single best estimate of value based on the "expert input" of finance professionals paid to achieve diametrically opposite objectives tends, regrettably, to surface minor, granular issues of this kind, which are not well addressed in the academic literature. The trial record in this case has more than its share of these minute disputes and the literature cited to me has done little to convince me that there are clear-cut answers to most of them.

Rather than burden the reader with a full rendition of the back-and-forth between the parties' experts - one of whom has valued PFPC on the Merger date at $\$ 19.86$ per share and the other of whom has valued PFPC on the Merger date at $\$ 60.76$ per share I instead endeavor to explain my own valuation. It is probably not difficult to guess that the defendants' expert, Dr. Donald Puglisi, came up with the lower figure and the
plaintiffs' expert, Dr. Brett Margolin, came up with the higher figure. My valuation is importantly influenced by the trial testimony, including the opinions of Puglisi and Margolin, but it is ultimately, as our law requires, my own best effort at a reasoned valuation. For that reason, I do not attempt to justify each of my deviations from either of the expert's valuations. ${ }^{2}$

In this opinion, I conclude that the fair value of PFPC on the Merger date was $\$ 32.81$ per share. I come to that figure by giving two-thirds weight to my determination of PFPC's valuation under the discounted cash flow method of valuation, and one-third weight to my determination of PFPC's valuation under the comparable companies method of valuation.

## II. Factual Background ${ }^{3}$

## A. The Creation Of PFPC Worldwide And Its Managers’ Incentives

In the second half of 1988, PNC conceived and developed "Project Brandywine," essentially a restructuring idea that was designed to coalesce several of PNC's businesses with higher multiple business lines under a single company brand name, albeit the tongue-twisting string of consonants, PFPC. ${ }^{4}$ These higher multiple businesses, primarily involved in providing a variety of services to the investment management industry, had,

[^1]up until then, grown up organically in several places throughout the PNC organization. The services involved a diverse menu designed to help money managers service their customers. Neither of the parties spent time at trial dilating on any of the particulars; suffice to say that investment managers will always seek to reduce the prices that they pay for services such as PFPC provides, and that these services are, and likely will continue to be, subject to intense price competition over time. On the other hand, with the globalization of capital markets and the increasing consignment of workers to the capital markets in order to provide for their own retirements, the amount of these services that the investment management industry would consume, viewed from the time of the Merger, was also likely to grow at a healthy clip over the next several years.

In any event, the idea of Project Brandywine was to focus public attention on these supposedly higher multiple business lines by consolidating them under the PFPC label, and, at some strategic point in the future, take them public via an initial public offering or "IPO," realizing that higher value in the public markets. In 1999, the newly-formed PFPC ${ }^{5}$ "bought" these higher multiple businesses from PNC with $\$ 190$ million loaned to it by PNC, consolidating these businesses as planned.

Concurrent with the formation of PFPC, nine key employees were given the opportunity to buy into the new entity as minority shareholders, albeit on very favorable terms to them. The idea, obviously and then all the rage, was to provide an incentive for the top managers of PFPC to manage the business profitably and to fuel its growth.

[^2]Although these employees were given a good deal on their shares, they still had to buy them with their own assets. As a result, many of them took out loans to take advantage of this opportunity. The best wisdom then available was that the planned IPO would take place within three years. The employees were aware of this information and planned their loan structures accordingly, frequently establishing repayment terms that required sizable repayments of principle at the three year mark. Some of the employees perceived that this plan represented a promise for a liquidity event within three years.

I find no persuasive evidence that PNC made any binding obligation of this kind, and certainly none was contained in any of the formal agreements with the minority stockholders. As sophisticated executives, these minority stockholders knew how to protect themselves by contract. What they were relying upon was not a binding promise in the legal sense but their normative expectation that PNC would treat them fairly as employees and their perception that PNC desired an IPO as much as they did - after all, that was point of creating PFPC. ${ }^{6}$

Plaintiff Andaloro was to be the key officer at PFPC. As PFPC's Chief Administrative Officer, he chose the investment bank of Lazard Freres \& Co. ("Lazard") to work with him to value the minority management shares for this initial transaction. Lazard's valuations was based on both the comparable companies method ${ }^{7}$ and DCF

[^3]analysis, ${ }^{8}$ but relied most heavily on its comparable companies analysis, which focused on four "pure play" comparable companies. ${ }^{9}$

I take this opportunity to introduce the comparable companies that are repeatedly used throughout this opinion because they, or some subset of them, were used in most if not all of the comparable companies analyses that were performed on PFPC over the years and because Puglisi and Margolin both used them in their valuations. The original 1999 Lazard valuation used what was sometimes referred to in this litigation as the "pure play" comparables or "core" comparables, those companies whose products and services most overlapped with those offered by PFPC. These companies were: The BISYS Group, DST Systems, Inc., Investors Financial Services (often referred to as IFIN), and SEI Investments. Several later valuations of PFPC expanded this core group to include two additional companies, State Street and Sungard Data Systems, yielding a comparative field of six companies, ${ }^{10}$ a broader grouping that I will refer to in the aggregate as the "Big Six."

Over the years before the Merger, other valuations of PFPC focused on some subset of the Big Six, though not necessarily the four used by Lazard, as the pure play companies most similar to PFPC, even when also considering the Big Six. Margolin takes this tact to a degree in considering PFPC’s performance both measured against the Big Six and against a subset of more closely comparable companies. In plaintiff Andaloro's mind as testified at trial, the pure plays were that group of four used in the

[^4]initial Lazard valuation at the inception of the company. ${ }^{11}$ Because Andaloro's testimony that these four are the most consistently comparable has other solid grounding in the record, I call these four companies the "Core Four," as they are the companies most frequently looked to in the various valuations of PFPC as good proxies for how the public markets would value PFPC if it were a publicly listed company.

Based on the Lazard valuation that focused on the Core Four, PNC ultimately offered shares to the nine senior PFPC executives at a price of $\$ 10.20$ per share. ${ }^{12}$ That price incorporated a significant minority and liquidity discount, as well as a second unspecified discount, totaling approximately $40 \%$ of the value of the company as determined by Lazard. ${ }^{13}$

## B. PFPC Acquires Investor Services Group ("ISG")

## For \$1.1 Billion

In December 1999, PFPC acquired Investor Services Group ("ISG") for \$1.1 billion in cash — cash once again obtained through loans from its parent, PNC. At the time of the acquisition, ISG was larger than PFPC and accounted for $60 \%$ of its business going forward. ${ }^{14}$ As a result of the comparative sizes, PFPC faced a major challenge in successfully integrating the two firms. Andaloro and the other management minority stockholders supported the ISG acquisition but knew that as a result of the acquisition and the attendant integration issues, the contemplated IPO for PFPC would be postponed.

[^5]For PFPC to obtain a favorable IPO valuation, it needed to integrate ISG successfully and present favorable financial results, which could take years. Andaloro and his managers knew that the IPO plan would take a back seat until those tasks could be accomplished. Nonetheless, they favored the ISG transaction.

## C. PNC Continues To Finance PFPC with Debt

In the interim until an IPO could come to pass, PNC continued to finance PFPC with debt. This debt did not reflect the terms PFPC would have obtained in the open market. Instead, it was much more favorable to PFPC than PFPC could have obtained from an arms-length lender, but PNC protected itself, by reserving the right to accelerate the requirement that PFPC pay off all of the principal and interest it owed to PNC if it failed to make full repayment upon the maturity of any of the notes it provided to PFPC. And, of course, PNC, through Holdings, owned almost all the stock of PFPC and controlled PFPC's board.

Most of PFPC’s publicly traded competitors - such as the Core Four comparables described above - had very little debt in their capital structure. PFPC planned to move towards that model when it became feasible. PFPC's financial projections anticipated that material portions of its cash flow would be devoted to repay the debt it owed to PNC, until the IPO generated the big pop of cash that would enable PFPC to pay off the debt. But PFPC did not pay the debt back as it came due. In fact, it is likely that it could not have done so even if it wished, as its results were not, as of the periods before the Merger, sufficient to allow it to meet its obligations as a debtor. Instead, the debt owed to PNC was regularly refinanced, under terms that gave PNC the leverage to protect itself if

PFPC did not make the required payments at maturity. By refinancing, PNC could protect itself while taking advantage of the modest state tax shields that maintaining debt at the PFPC level provided. But at all times, PNC retained the contractual and practical power to secure its interests as a lender. ${ }^{15}$

As of the Merger date, PFPC owed PNC approximately $\$ 1.29$ billion in principal debt. In that regard, it is important to note that by the terms of the debt instruments, some of which were signed by Andaloro for PFPC, huge portions of the debt matured in the period 2003-2005. At the end of each of those years, PFPC was required to pay back, either to PNC Bankcorp or its affiliate PNC Funding Corp., principal and interest in the following amounts:

| Note Principal | Maturity Date | Interest Rate | Annual Interest |
| :---: | :---: | :---: | :---: |
| \$350,000 | 12/1/2004 | 7.27\% | \$25,445 |
| \$200,000 | 12/1/2003 | 7.15\% | \$14,300 |
| \$100,000 | 12/1/2003 | 3.53\% | \$3,530 |
| \$190,000 | 12/1/2005 | 7.43\% | \$14,117 |
| \$100,000 | 12/1/2005 | 7.43\% | \$7,430 |
| \$350,000 | 12/1/2006 | 1.80\% (var.) | \$6,388 |
| \$1,290,000 |  |  | \$71,210 ${ }^{16}$ |

[^6]If PFPC failed to make its payments, PNC could accelerate the maturity date of the rest of the debt owed to it by PFPC. ${ }^{17}$ The plaintiffs aptly describe PNC as having reserved for itself as a lender a "zero-cost put [option]," allowing it to recoup its principal and interest. In so doing, the plaintiffs contend that PNC - even though it owned $98 \%$ of the equity - forewent the exposure to the risks of the market that equity holders must endure, while maintaining, through the loans and its voting control, the ability to monopolize PFPC's market upside. ${ }^{18}$ I find this complaint to be entirely devoid of legal or equitable force. I see no basis to conclude PNC acted improperly in securing its interests as a lender to PFPC.

There is no equitable problem with a parent company that has provided favorable seed financing to a controlled subsidiary ensuring that it would receive repayment of the debt financing it has infused. The minority stockholders could not have reasonably expected nor received any more favorable treatment from a third-party lender to PFPC.

In fact, I have every reason to believe that PFPC, as a stand-alone entity, could not have obtained debt financing as substantial as that provided by PNC, and certainly not without paying a much higher cost and without giving even more concessions than it granted to PNC. Given the magnitude of financing involved — over $\$ 1$ billion — any third party provider of that debt would have, in my view, sought guaranties making the debt more

[^7]like an equity investment. That is, absent a guarantee of repayment by PNC made on PFPC's behalf, PFPC was in no position to borrow on terms nearly as favorable as PNC provided. ${ }^{19}$

## D. PFPC Issues More Shares And Serial Valuations of PFPC Are Procured In Aid of An IPO Or Liquidity Event That Never Proceeds

In April 2001, PFPC decided to offer stock to a broader segment of its managers in the form of options. In addition to the 200 or so managers who were to receive options, PFPC also contemplated allowing a few additional key employees to buy in for shares, as the initial nine key managers had at the company's inception. In preparation for these events, PFPC retained KPMG to value the company in February 2001. That report valued PFPC shares at $\$ 27.00$ a piece as of December 31, 2000, assuming a minority discount. In reliance on that valuation, PFPC issued stock options to its management employees in April 2001 with a strike price of $\$ 43$ per share. Soon thereafter, in July 2001, PFPC sold additional shares to three PFPC executives for $\$ 35$ per share.

After this sale, the record reflects that no additional PFPC shares were sold or issued until the Merger in March 2003. But as 2002 approached, and throughout that year, PNC and PFPC continued to consider whether an IPO was feasible, as well as whether there should be an alternative liquidity event to generate cash for the minority stockholders who had incurred debt to buy their PFPC stock. In the course of the process

[^8]of consideration, PFPC commissioned several valuations. ${ }^{20}$ In all of these valuations, the same Big Six comparable companies factored into all the various bankers' comparable companies valuations.

By mid-2002, however, PNC became embroiled in a number of regulatory issues, the resolution of which took precedence with the PNC board. Therefore, although a bunch of valuations were performed, they did not lead to any concrete plan for an IPO or an alternative liquidity event in the middle of 2002. In this regard, it is important that there appears to be no record support for the proposition that PFPC could have gone forward with an IPO in that year or 2003 and achieved a good price. PFPC was still integrating ISG, and was facing a challenging patch, as the plaintiffs concede when they claim that 2002 was a depressed year for PFPC. Put simply, although the plaintiffs' claim that internal valuations were showing high values for PFPC, they do not contend that the market as a whole would have embraced PFPC in an IPO at a high per share value. In fact, their arguments suggest that PFPC would not have commanded a good per share price that year - a reality that undercuts their claim that PFPC was worth $\$ 60$ per share as of the Merger date.

It was that reality — that PFPC could not go public in 2002 or 2003 at an attractive valuation - that gave rise to thoughts of other ways to give liquidity to the PFPC minority stockholders. This process suffered a serious setback, however, when the

[^9]key PNC executive who had been leading the consideration of alternative approaches to liquidity, retired in August 2002. To avoid allowing plans to stagnate as a result of this development, the plaintiffs became more strident in their efforts to secure a liquidity event.

## E. The Management Stockholders - Led By Plaintiff <br> Andaloro - Demand Liquidity

By the middle of 2002, a clamor had arisen from Andaloro and the other original management stockholders who had taken out personal debt to finance their purchases of PFPC stock. Andaloro made it indisputably clear that PNC faced a mutinous situation unless it did something to provide them with a liquidity event that would enable them to pay off their debts and reap a profit on their shares. ${ }^{21}$ That is, although Andaloro did not phrase it in those terms - he used the words "migrat[ing] to a highly contentious environment" - his communications were clear to anyone who read them and PNC understood them as I have articulated. ${ }^{22}$

PNC responded by assigning its newly designated Vice-Chairman, Joseph Whiteside, to figure out how to provide the minority stockholders with liquidity. PNC did so, I conclude, not because it wished to take advantage of the minority stockholders in any way, but in an effort to accommodate their request for liquidity. PNC was hoping

[^10]to be conciliatory and to press forward in a rational way that would permit it to retain key employees, in a situation when everyone's (including PNC's) original hopes for a lucrative IPO had been dashed.

Whiteside's task was unenviable. The employees had bought in at various times and at various prices, including the three who bought at $\$ 35$ per share in July, 2001. In addition, PFPC had purchased plaintiff Peter Lemay’s business, Automated Business Development Corp., and Lemay received PFPC shares under a contract that, through a top-up right requiring the issuance to him of extra shares, essentially guaranteed him a value of $\$ 59.50$ per share. ${ }^{23}$ All of the various holders — including Andaloro and Lemay - wanted a transaction in which they would profit personally. This had the effect of generating pressure on PNC to pay a price that would satisfy as many of the minority stockholders as possible, as its goal was to keep the PFPC management team happy and productive.

To aid him in determining how to proceed, Whiteside called on Wachtell, Lipton, Katz \& Rosen to help with legal matters and Salomon Smith Barney ("SSB") was called upon to perform yet another valuation of PFPC.

Ultimately, PNC decided that it would provide liquidity to the minority stockholders through a merger. Although a stock merger giving the minority PFPC

[^11]stockholders PNC stock for their shares was contemplated, the required time to push through the necessary registration statement was deemed too time consuming to meet the minority stockholders' demand for a cash-generating transaction that would help them repay their debt. A cash-out merger was settled on as the fastest option by PNC management, and therefore the one most likely to be palatable to a majority of the minority stockholders. It did not, however, proceed in the typical fashion of mergers consummated under 8 Del. C. § 253 involving publicly-traded, non-wholly owned controlled subsidiaries.

That is, PNC did not attempt to create any form of agency to negotiate for, or provide a recommendation to, the minority stockholders. Nor did PNC retain an investment bank to value PFPC for the purpose of providing an opinion of the fairness of the Merger to the minority stockholders of PFPC. Instead, PNC relied largely on its communications with Andaloro, who it correctly understood to be respected by the other employee-stockholders and who had been vigorously advocating for a high price. Based on its conversations with Andaloro and other minority stockholders, PNC tried to glean the price that would enable it to get the transaction done at a fair price that achieved peace within the PFPC ranks. When the Merger was ultimately considered at a PFPC board meeting, the process was perfunctory and reflected the reality that PNC was implementing a short-form Merger within its statutory power.

In an even more unusual move, PNC did not simply pick a price and consummate a merger under § 253, leaving dissatisfied holders with the remedy of appraisal explicitly called for by § 253. Rather, PNC conditioned its Merger offer - the terms of which I
will describe next - on the unanimous agreement by all minority stockholders to accept the Merger consideration and to waive any right to appraisal or to sue. That condition was communicated in a letter sent to minority stockholders on February 24, 2003 ${ }^{24}$ and in some meetings with groups of minority stockholders after both PNC's and PFPC's boards had approved the transaction. The minority stockholders were given until February 28, 2003 to decide whether or not to agree. As we now know, PNC eventually relented on the unanimous approval condition and consummated the Merger on March 6, 2003 despite dissents by plaintiffs Andaloro and Perlsweig. PNC continues, however, to claim that the waivers signed by the other PFPC stockholders are valid and binding upon them.

The Merger price was set based on the discussions with Andaloro, who PNC believed to be seeking a price in at least the $\$ 35$ per share range, and with input from SSB..$^{25}$ The $\$ 35$ figure, as Andaloro pointed out, ${ }^{26}$ also had some practical basis because the last tangible valuation of the stock had occurred at $\$ 35.00$ in the July 2001 sale to the three additional executives and these executives would obviously not be excited about taking a large loss. On the other hand, PNC also had to deal with the reality that if it paid more than fair value for the PFPC shares, the excess payments over fair value could be deemed compensation to the receiving employees for tax and accounting purposes.

After some massaging that took some of these factors into account, SSB produced a valuation range of $\$ 20.78$ to $\$ 34.26$ per share for PFPC as of a valuation date of

[^12]December 31, 2002. The SSB range included a squeeze out premium and was adjusted to remove any minority discount.

PNC thereafter opted to offer the $\$ 34.26$ figure to the minority stockholders after its accountants signed off that this figure would not be deemed to include any compensation expense. ${ }^{27}$ By the time PNC decided on that figure in early 2003, the stock market had weakened measurably from the December 31, 2002 valuation date and the value of PFPC's comparable public companies had also declined. Nonetheless, PNC did not seek an updated valuation from SSB, which opined on February 13, 2003, that the Merger price was fair to PNC as of January 2, 2003, the first weekday of 2003.

PNC consummated the Merger on March 6, 2003. Within months, the plaintiffs’ appraisal and fiduciary actions were filed.

## III. Legal Analysis

Although this is a combined appraisal and equitable action, my task today is akin to that of an appraisal, as I am charged with determining the fair value of PFPC on the Merger date. In that regard, this determination is also a proxy for the damages that would be awarded to any of the plaintiffs if they succeed in their equitable action for breach of fiduciary duty. Having failed to present evidence in support of a claim for rescissory damages, the plaintiffs, if they were to later prove a breach of fiduciary duty, would be entitled to an award of damages to compensate them for any gap between the value of what was taken from them in the Merger, i.e., their PFPC stock, and what was received

[^13]by them, the Merger consideration. It is for this reason in no small measure that it was deemed more efficient to try to the ultimate value question first.

The plaintiffs, in their papers, make the argument that this court might have the remedial discretion to award more than its assessment of fair value in damages if it concludes that the defendants breached their fiduciary duty of loyalty, because such breaches call for strong remedies and doubts in the remedial calculus should be resolved against the defendants. ${ }^{28}$ What they fail to recognize is that the fair value standard itself is, in many respects, a pro-petitioner standard that takes into account that many transactions giving rise to appraisal involve mergers effected by controlling stockholders. The elimination of minority discounts, for example, represents a deviation from the fair market value of minority shares as a real world matter in order to give the minority a pro rata share of the entire firm's value - their proportionate share of the company valued as a going concern. That policy move helps deter abuse and promote fairness to the minority.

But, when a court has focused on the economic evidence before it and made its best assessment of the difference between the value of the stock that was taken from and the value of the cash that was paid to the plaintiffs, that assessment will usually be determinative of the damages question in an equitable action for breach of fiduciary duty,

[^14]absent a basis to award rescissory damages or some other non-typical form of relief. This assessment, by definition, is a measure of the harm to the plaintiffs, which when supplemented by an award of interest is thought to make the plaintiffs whole. In particularly egregious cases, of course, the court may also shift attorneys' fees.

Because of the relationship between the appraisal and equitable actions, I have, at the margins, in fact resolved doubts in favor of the plaintiffs. In other words, the valuation I set forth is more optimistic than is strictly justified and takes into account the practical control PNC wielded. ${ }^{29}$ As we shall see, the application of those optimistic assumptions provides independent support for the defendants’ contention that they were motivated to make the employee-stockholders of PFPC happy. Why? Because the reality is that it takes very optimistic assumptions to justify a value per share as high as PNC ultimately paid in the Merger.

Before embarking on my valuation proper, I set forth the well-established standard for determining fair value in accordance with the appraisal statute. In that endeavor, this court must establish the fair value of the entity in question as a going concern, excluding value arising from the Merger itself, taking into account all relevant factors. ${ }^{30}$ Such factors may include asset value, dividend record, earnings prospects and any additional

[^15]factors that relate to financial stability or prospects for growth. ${ }^{31}$ In making the fair value determination, the court may look to the opinions advanced by the parties' experts, select one party's expert opinion as a framework, fashion its own framework or adopt, piecemeal, some portion of an expert's model methodology or mathematical calculations. ${ }^{32}$ But, the court may not adopt an "either-or" approach and must use its judgment in an independent valuation exercise to reach its conclusion. ${ }^{33}$ Once the court has determined the fair value of the entity itself, the parties seeking appraisal are entitled to their pro rata share of that value.

With this standard in mind, I turn to the valuation endeavor.

## A. The Discounted Cash Flow Model

The DCF model of valuation is a standard one that gives life to the finance principle that firms should be valued based on the expected value of their future cash flows, discounted to present value in a manner that accounts for risk. The DCF method is frequently used in this court and, I, like many others, prefer to give it great, and sometimes even exclusive, weight when it may be used responsibly. ${ }^{34}$

[^16]Put in very simple terms, the basic DCF method involves several discrete steps. ${ }^{35}$ First, one estimates the values of future cash flows for a discrete period, based, where possible, on contemporaneous management projections. Then, the value of the entity attributable to cash flows expected after the end of the discrete period must be estimated to produce a so-called terminal value, preferably using a perpetual growth model.

Finally, the value of the cash flows for the discrete period and the terminal value must be discounted back using the capital asset pricing model or "CAPM."

Here, both experts agree that the DCF method can be used reliably. Each performed a DCF valuation of PFPC - Puglisi's leading to a value of $\$ 21.35$ per share and Margolin's leading to a value of $\$ 60.76$ per share. I agree with them that the DCF method should be given heavy weight here and therefore I turn to explaining my own DCF valuation, starting with the base set of projections that I use.

## 1. The Management Projections For 2002-2007

The typically dismaying chasm in the experts' DCF outcomes is a real achievement given a happier aspect of the record: both experts relied on the same management projections in building their DCF models. PFPC had prepared financial projections for the period 2002-2007 that were used by SSB in its valuation work. These projections were intended to be realistic.

Each side quibbles a bit about them. For their part, the plaintiffs argue that the Merger was timed to occur in a market down-trough and that the projections for 2003

[^17]reflect the pessimism of the period. That argument is unpersuasive for several reasons.
First of all, it was the minority stockholders who were demanding a liquidity event occur in the time period of the Merger. The realities of PFPC's performance during 2002 and the best estimates of its performance in 2003 obviously had a real world effect on PFPC's value as a company and the plaintiffs are not entitled to have those factors ignored in valuing their shares. Likewise, that PFPC was not well-positioned to conduct an IPO says something about not only its value as an entity, but also necessarily speaks to the value of the plaintiffs' minority shares - those values are obviously interdependent. Most important, the projections are precisely the sort of information that enables one to make an assessment of the value of PFPC without being unduly affected by short-term results. As the plaintiffs must admit, the projections showed very rapid growth for the period 2003-2007, with operating revenues growing between 13.0 and $13.5 \%$ each year and profit margins rising in equally impressive fashion. In the final year of the projections, a $13.4 \%$ growth in operating revenue, a $29.7 \%$ growth in net income, and a $21.4 \%$ growth in operating earnings after tax are estimated. ${ }^{36}$

Indeed, the bullishness of the projections leads the defendants to suggest that I can reasonably be skeptical of how likely PFPC was to achieve them, especially in the later

[^18]years of the projections period. ${ }^{37}$ In the early years, the defendants say, PFPC management usually had a better handle on what would happen. But, in the out-years, the projections were more of a hope than a reasoned prediction. In this same regard, the defendants note that PFPC's previous efforts at projecting results had not been impressive, and PFPC tended to fall short of management's projections. Furthermore, the defendants also persuasively suggest that PFPC's markets were likely to grow in competitiveness, squeezing profit margins and making the retention of existing business more challenging. Similarly, the idea that PFPC could continue to achieve large annual margin improvements by cost-reductions is not sustained by the record or business intuition. Other factors, including the maturation of the investments services industry, also suggest that out-year growth would eventually slow. ${ }^{38}$

Of the two side's arguments, I incline more towards the defendants' arguments. Given the less than stellar past performance of management in calling the future, and given its tendency towards unwarranted optimism, there is more of a basis to conclude that the projections were too rosy than that they were too bleak. Nonetheless, I choose,

[^19]as both experts ultimately did, to use the projections in a substantially unaltered form for the years 2003-2007. ${ }^{39}$

The projections were prepared by PFPC management under the mandate to make them realistic and to provide a best estimate of the future. ${ }^{40}$ Their relative optimism accords with a presentation, PFPC's then-CEO (and PNC's then part-time CIO) Timothy Shack made to the PNC board about PFPC's future in February, 2003. ${ }^{41}$ SSB's own fairness opinion was based on assurances that it had received projections that represented the company's best good faith estimate of its future performance. ${ }^{42}$ When projections of this type exist, and when they are prepared under circumstances that do not undercut the court's confidence in their trustworthiness, this court has rightly viewed it as wise to give heavy weight to them, ${ }^{43}$ and I do so here.

## 2. Retirement Services

In one respect of very modest importance, I differ from the management projections. At the time of the March 6, 2003 Merger, PFPC was well on its way to selling a component of its business, Retirement Services, that it had acquired in the ISG transaction. The projections included the revenues for Retirement Services.

[^20]It would be credible to value PFPC on the Merger Date including Retirement Services, as Puglisi did. As of that date, PFPC had not yet signed a firm contract to sell Retirement Services. But, on balance, I conclude that the indication of interest that PFPC received from Wachovia in early February 2003 was, despite its due diligence caveat, sufficiently firm, when coupled with PFPC’s desire to sell, to conclude that the business plan of PFPC as of the Merger Date was to dispose of Retirement Services. For that reason, I, as the plaintiffs do, exclude Retirement Services from the projections as that choice best depicts the managerial strategy of PFPC as of the Merger date. To do so, I exclude the expected Revenues from Retirement Services and give PFPC credit for the net proceeds of the later sale of Retirement Services to Wachovia, using the estimate provided by the defendants, which I conclude is credible. ${ }^{44}$ Later in this opinion, I also adjust my comparable companies valuation of PFPC to reflect this decision.

That choice has only a modest impact on value. In terms of the DCF approach, making this adjustment that the plaintiffs advocate actually lowers the resulting value. Although Retirement Services did not perform well in 2002 and was not predicted to do well in 2003, the projections actually predicted that it would make a valuable contribution to earnings in later years. The defendants' choice to include it was probably, on balance, more conservative than aggressive. ${ }^{45}$

[^21]
## 3. Valuing the Equity: Two Stage Versus Three Stage DCF

In coming to a value determination using a DCF model, one must determine what to do at the end of the discrete period covered by the available management projections. At that point, there are several credible approaches and Puglisi and Margolin each chose a different one. Puglisi chose at that point to simply estimate a single percentage figure that he would use as a proxy for PFPC's perpetual growth beyond the discrete period covered by the management projections. That is, Puglisi used the more common two step DCF model. By contrast, Margolin employed a three stage model, by projecting particular growth rates for the years in the second stage, namely the four years beyond 2007, before then using a single terminal growth percentage.

As a general matter, neither approach is inherently preferable, as both experts readily admit. ${ }^{46}$ Both methods attempt to capture the future growth prospects of the firm while recognizing that over time firms cannot continue to grow at a rate that is materially in excess of the real growth of the economy. Thus, the terminal growth rate selected attempts to capture earlier periods of higher than typical growth while also recognizing that such growth will slow in time. Both the second and three stage models attempt to do this, but the three stage model makes the reasoning a bit more explicit. Because I intend to make my reasoning visible, I have chosen to apply the three stage method.

[^22]I do not, however, adopt the three stage model advanced by the plaintiffs' expert Margolin. After the period covered by the management projections ended, Margolin estimated another four years of very fast, albeit gradually declining, growth — averaging $13.2 \%$ growth to the unlevered free cash flow. ${ }^{47}$ Margolin calculated this growth by decreasing PFPC's growth in a linear way from the last year of the management projections in 2007, which Margolin calculated as a $20.3 \%$ increase in unlevered free cash flow, adjusting for Retirement Services. In 2008 through 2011, therefore, Margolin shrank this rate linearly, though he admitted at trial that his linear decline during the second stage was, in his words, "arbitrary." ${ }^{48}$ At the end of his second stage, Margolin then employed a terminal growth rate of 5\%, a rate his trial testimony, fairly read, suggests that even he considers high as the final component of a three step DCF. ${ }^{49}$

Margolin defended his estimate by professing his belief that the industry in which PFPC participated was growing and that impressive growth beyond 2007 was achievable. The empirical basis for his belief was not apparent, nor did he provide a persuasive case for his belief that was grounded in any actual business dynamics.

[^23]Puglisi was more conservative. Puglisi did not believe that PFPC would continue to grow in the period beyond 2007 at anywhere near the double digit levels contained in the projections. He recognized that PFPC could grow at a level faster than the real growth in the economy for some years after 2007. Puglisi took this into account, he says, by using an assertive terminal growth figure of 5\%, which he based on the assumption that PFPC would grow at a $6 \%$ clip for the three years after 2007, and then revert to a growth more in line with the economy as a whole.

Although I use a three step model, I believe Puglisi is, in substance, far closer to the mark. Based on the trial testimony and record, there is no credible basis to project another period of super-charged growth for PFPC beyond 2007. Although I believe PFPC had a bit more room for growth than Puglisi found, the nature of the services it provides suggests that it will face increasing competition, not only domestically, but from abroad, and that the prices of the services it provides will always face withering scrutiny from investment managers trying to control costs. ${ }^{50}$ Although volume increases in capital market transactions will also help growth, the growth in those transactions can also be expected to slow over time. Finally, I believe that PFPC's ability to increase its margins through cost-reductions will slow. ${ }^{51}$ Given these factors and the optimism of the

[^24]projections for 2002-2007, I simply do not find it probable that PFPC could then grow at the large rates Margolin projects for the next period: $17.4 \%, 14.6 \%, 11.7 \%$, and $8.9 \% .^{52}$ Notably, Margolin builds his second stage projections off the very optimistic, and least reliable fifth year of the management projections. ${ }^{53}$

Although I disagree with Margolin, I am a bit more bullish than Puglisi, finding reason in the record to believe that the expansion in capital markets will generate demand for the services that PFPC provides that will generate somewhat higher growth than Puglisi predicts. To account for that, I have built into my DCF model a period of three years of additional growth at 8\%, 8\%, and 8\% for years 2008, 2009, and 2010.

I then use a figure of $5 \%$ as my perpetual growth estimate. For the reasons I have explained, both the use of the interim second period of high growth and the use of a high terminal percentage are very generous to the plaintiffs. ${ }^{54}$

With these adjustments on mind, I turn to my calculation of the appropriate discount rate.

## a. Calculating The Discount Rate And Determining <br> Appropriate Treatment Of PFPC's Debt

[^25]The two experts take sharply divergent approaches to calculating the discount rate.

For his part, Puglisi uses a target capital structure for PFPC of all equity capital. He notes that the use of a target capital structure has support in the academic literature, and is well suited for use here for several reasons. These include the fact that PFPC's industry competitors had very insubstantial amounts of debt and that it was PFPC's goal to move towards a capital structure like its competitors, and without substantial debt. Indeed, the assumption that PFPC would pay off its debt was built into the management projections. Lastly, Puglisi noted an obvious and, in my view, compelling business reality: if PFPC really had a large equity value than PNC could expect to receive full repayment of the principal and interest due it as of the Merger Date, $\$ 1.29$ billion. This contention is also buttressed by PNC's control of PFPC and the terms of the debt itself, which required PFPC to pay back huge chunks of debt at the end of each of 2004, 2005, and 2006 or risk default and acceleration of the full debt. As a practical reality, Puglisi also testified that in any sale of PFPC, the equity holders would only have received payment after the debt was paid off in full. ${ }^{55}$ Alternatively, had PFPC sought to replace $\$ 1.29$ billion in debt in

[^26]the public markets that debt realistically would have looked a lot like equity. ${ }^{56}$ For all these reasons, Puglisi simply subtracted out the net debt of PFPC, using the par value of the debt to PNC in that calculation, from its capital structure. Then, he discounted PFPC's future cash flows by a cost of capital equal to his calculation of PFPC's cost of equity.

Margolin goes to the other extreme. He simply assumes that PNC would permit PFPC, as a going concern, to roll over in perpetuity its $\$ 1.29$ billion in debt at the same favorable rates PNC had always charged it. Margolin justifies that assumption by contending that PNC and PFPC benefited on their various state tax returns by leaving the debt in place at PFPC, ${ }^{57}$ that PNC had always rolled over the debt in the past, and that the expectations in the management projections that PFPC would begin to pay down the debt were illustrative only.
the minority stockholders of PFPC equivalent to their pro rata share of the entire firm's entity value would have, with absolute certainty, involved the full repayment to PNC of the principal and interest due to it. Likewise, to value PFPC as a stand-alone entity, one should not pretend that PNC had a duty to continue to subsidize PFPC beyond the contractual terms of the debt instruments. Union Illinois 1995 Investment Limited Partnership v. Union Financial Group, Ltd., 847 A.2d 340 (Del. Ch. 2004); see M.P.M. Enterprises 731 A.2d 790, 796 (Del. 1999) (noting a preference for open market, arms-length negotiations in establishing value). Rather, PFPC should be envisioned as a corporate adult, responsible for repaying its debt and having no claim to immunity if its lender exercises its legal rights upon default.

For these reasons, by discounting that debt as I have done in both my DCF and comparable companies valuations, while according the plaintiffs a full pro rata share of PFPC's remaining equity value, I have clearly erred on the side of generosity to the plaintiffs.
${ }^{56} \mathrm{Tr}$. at 1112-15.
${ }^{57}$ The value of this benefit was never precisely quantified. For federal tax purposes, intercompany debt between PNC and PFPC did not provide PNC any benefit. On the state level, however, PFPC's debt might, at some times, be used to offset its positive cash flow for tax purposes, lowering PFPC's tax liability. The exact extent of this benefit would depend on the tax codes of several states over several years, but both parties acknowledged that some significant tax savings might be available through this accounting decision.

I do not find Margolin's approach credible. Although there might have been some benefit to PNC to maintaining some debt at PFPC, I find it more probable that PFPC had not repaid any of its debt to PNC because PFPC's cash flows were insufficient to do so. As they became healthier, as the management projections estimated, PFPC would be in a position to repay and would do so. ${ }^{58}$ Moreover, I do not believe that PNC was prohibited from protecting its legitimate interests as a lender simply because it was PFPC's 98\% owner. The minority stockholders had no right to benefit from PFPC's access to preferred financing from PNC and then turn around and demand that PNC not receive a full repayment of principal and interest.

That said, the reality was that PNC did not have, as of the Merger date, an immediate right to demand full repayment. Although it was perhaps more likely that PFPC's cash flows would be insufficient for it to make the principal and interest payments required at the end of 2003, 2004, and 2005 in order to avoid a default, it was conceivable that PFPC could avoid a default. Giving some weight to the contractual terms of the note, one can make the case for some discount from par in the value of the debt to PNC.

To give the plaintiffs that due, and also to account for a confusing argument that Margolin advanced, ${ }^{59}$ I will account for the debt in the following fashion. I will discount

[^27]the debt's value back from the date of maturity, using the discount rate that I will use for PFPC as a whole, which as I find below is $13.5 \%$. By way of example, I would take the principal and interest due to PNC on December 1, 2004 based on the terms of the debt and discount it back to the Merger date based on the discount rate for PFPC as a whole. By doing that for all of the debt PFPC owed to PNC, with the help of charts provided by the defendants, I come to an estimate that is, in my view, very charitable to the plaintiffs. ${ }^{60}$ I will also use that same estimate in my comparable companies valuation.

Having decided to use a target capital structure comprised entirely of equity, I must calculate a cost of equity. On this score, there are some areas of rare agreement between Puglisi and Margolin, which I readily embrace. Specifically, in calculating the discount rate to be employed in their calculations, the experts agreed that applicable risk free rate of return was 4.7\%. Furthermore, they agreed that an equity risk premium of $7.0 \%$ and a size premium of $0.82 \%$ were appropriate. Seeing no reason why these figures should be adjusted, I also accept them. Where Puglisi and Margolin have some modest
value of the debt were subtracted from the get-go. He had no credible explanation as to why the debt would sell at much less than par. In literature the plaintiffs cite, the use of a target capital structure of $100 \%$ is described as responsible, so long as a good estimate for the fair market value of the debt is subtracted. Pl. Post-Tr. Br. at 32 (citing Aswath Damodaran, The Dark Side of Valuation, 88-89 (2001)). By discounting the debt so sharply, despite PNC's strong claim for repayment and the reality that if PFPC has strong, positive equity value, then its creditors should expect full repayment, I have more than adequately taken the plaintiffs' arguments into account. In this regard, again see the discussion of Tad's Enterprises above.
${ }^{60}$ Discounting PFPC's $\$ 1.29$ billion in debt at a rate of $13.5 \%$ yields a present value of $\$ 1.1104$ billion for that debt. Inserting that value in the formula designed to calculate PFPC's net present debt in the DFC template, that is debt less cash, cash equivalents and cash proceeds from if the money vested options, yields a total net debt figure of $\$ 963.3$ million. It is this figure that I ultimately deduct from PFPC's value to reach the value of its equity, as opposed to the net $\$ 1.143$ billion deducted by Puglisi - hence my characterization of this choice as plaintiffcharitable.
disagreement is over the appropriate beta to use to come to the final calculation of PFPC's cost of equity.

## b. Calculating Beta

Because PFPC is a private company that does not trade on the public markets, its beta cannot be determined by direct measurement. Therefore, both Puglisi and Margolin looked to comparable companies in order to come up with a proxy for PFPC's beta, on the premise that a responsible sample of comparable companies ought to afford an insight into PFPC's systematic risk, as the comparables' covariance with the market as a whole should be similar to what PFPC's would be if its stock were publicly traded. Blissfully, Puglisi and Margolin even used a median beta derived from the six comparables described earlier in the opinion (the "Big Six") to come up with their proxy betas for PFPC. So what is the problem then, you ask?

Puglisi and Margolin did not take their betas from the same reporting periods or unlever them in the identical way. Margolin chose to measure his beta over five years, taking monthly measures providing 60 data points over the 60 months. Puglisi instead measured the beta over a two year period, taking weekly data for a total of 104 data points over the 104 weeks. Both methods find support in the literature as responsible methods. Neither party has cited any study proving that one is preferable to the other, and there are reasons to believe each has some value. ${ }^{61}$

[^28]Second, as alluded to above, there is some historical precedent, in valuing PFPC, to look to or weight more heavily the Core Four comparable companies, those most similar to PFPC. The plaintiffs, for example, fault Puglisi for giving too little weight to the Core Four in his comparable companies analysis.

In forming my valuation, I recognize these realities by giving weight to both Puglisi's and Margolin's measurements of beta. I deviate from both of them, however, by also giving more weight to the betas of the Core Four comparables than I do to the Big Six. Plaintiff Andaloro and others involved in valuing PFPC have viewed the Core Four as the most comparable businesses to PFPC. I have, as explained, found that view to have justification and have attempted to give it weight, without losing the useful insight into PFPC’s value also provided by the Big Six as a whole.

To accomplish this weighting, I therefore take the mean of four separate beta values. These include the median of the Big Six comparables using two years of data as presented by Puglisi and the median of the Big Six comparables using five years of data as presented by Margolin. ${ }^{62}$ I use the betas as calculated by Puglisi and Margolin,
and bear markets and that smoothes out any short-term anomalies. The two year period might be thought to provide information that is more current and that provides a better insight into the current beta, especially where some seismic market or industry shift is thought to have occurred. In explaining the use of the two year beta, Puglisi suggested that two of PFPC's comparables had strong shifts in their betas over the five year period, and also suggested that the tragedy of September 11, 2001 might have seriously altered the systemic risk in the investment industry. He did not support these assertions with convincing empirical data.
${ }^{62}$ The parties haggle over a lot of small points in aid of moving beta closer to their preferred points, 1.22 for the defendants and 1.04 for the plaintiffs. For example, it is not clear that Margolin's methodology, based on a weighted average price of market transactions in each stock is proper because, according to Puglisi, the market as a whole is measured only on end of trading day data. Frankly, the parties were not particularly helpful in convincing me one way or the other on this point. What is clear is that the effect on beta, while measurable, is minor. See Tr.
without regard to their other disputes, none of which I find to be material. To these I add the beta, as calculated from the two experts' respective data, of the Core Four comparable companies as calculated over Puglisi's two year horizon and Margolin's five year horizon, again using the expert's own chosen betas.

The mean of these four betas equals $1.20 .{ }^{63}$ Combining this beta value with the agreed upon figures described above leads to a $13.92 \%$ cost of equity for PFPC. ${ }^{64}$ I note that this rate does not differ materially from Puglisi's calculated cost of equity of 14.08 , but to be generous to the plaintiffs, I round down to $13.5 \%$.

## 7. Final DCF Numbers

Having broken my analysis into its constituent parts, and explained my reasoning for each major choice, all that remains is to restate the key assumptions and to set forth the mathematical conclusion they yield. To summarize, I: 1) use the optimistic management assumptions, adjusted for the sale of Retirement Services, to estimate PFPC's cash flows for the period from the Merger until 2007; 2) assume optimistically an
at 1091-92 (Puglisi acknowledging that the shift in beta would be from 1.04 to approximately 1.08). Likewise, Margolin criticizes Puglisi for allegedly improperly unlevering the betas of the Big Six through his treatment of their cash positions. Again, I am less than persuaded that either is clearly right, albeit more inclined to think Puglisi unlevered the betas in a responsible manner, but am secure in the belief that the resolution of this scuffle is not important to coming up with a materially credible estimate of PFPC's value on the Merger date. By using each expert's calculated betas for both the Big Six and the Core Four - which in themselves were not widely disparate - I have no reason to believe that my estimation of PFPC's beta is not reliable.
${ }^{63}$ Puglisi's beta, the median of the Big Six over two years, is 1.22. Margolin's beta, the median of the Big Six over five years is 1.04. The median of the Core Four in Puglisi's analysis is 1.41 and the median of the Core Four in Margolin's analysis is 1.12 . The mean of these values is 1.1975, which for simplicity I round to 1.20 .
${ }^{64}$ Cost of equity equals the risk free rate of return plus beta times the equity risk premium plus the size premium. Stated another way $4.7+1.2(7.0)+.82$ or, in my calculation, a $13.92 \%$ cost of equity.
additional three years of high growth at $8 \%$ annually for the years 2008 to 2010; 3) rely, in light of that second stage aggressive growth, on a generously high terminal growth factor of $5 \%$; 4) use a target capital structure of $100 \%$ equity, but tip the scales in the direction of undervaluing, to the defendants' disadvantage and plaintiffs' advantage, the debt PFPC owed to PNC by discounting it back from its maturity dates using the same discount rate I use for the overall valuation; and 5) employ a $13.5 \%$ discount rate that I rounded down from 13.92\%. Using these assumptions in the DCF template provided by defendants, whose functionality was recognized by plaintiffs, I come to a DCF valuation of PFPC as of the date of the Merger of $\$ 32.08 .{ }^{65}$

## B. Comparable Companies Analysis

The plaintiffs staked their case exclusively on the DCF method of valuation.
Margolin claimed that the DCF method was far preferable and that it was difficult to do a responsible comparable companies valuation for PFPC because it did not have a good year in 2002, the stock market was in decline, and because it was still absorbing ISG. ${ }^{66}$ By contrast, Puglisi believed that the comparable companies method provided a useful indication of PFPC's value and that the factors Margolin mentioned did not preclude a responsible comparable companies valuation, and in some respects were just objective

[^29]economic realities that the plaintiffs must concede had an effect on PFPC's real world value.

The comparable companies method of valuing the company's equity involves several steps including: finding comparable, publicly-traded companies that have reviewable financial information; calculating the ratio between the trading price of the stocks of each of those companies and some recognized measure reflecting their income such as revenue, EBIT or EBITDA; correcting these derived ratios to account for differences, such as capital structure, between the public companies and the target company being valued; and finally applying the average multiple to the relevant income measurement of the target company, here PFPC. ${ }^{67}$ The methodology rests on the reasonable assumption that, after making the appropriate adjustments, the subject company would tend to have its free cash flows valued at the same multiples as its industry peers.

The comparable companies methodology, when applied in a valuation context, requires one further adjustment. This revision becomes necessary because the calculation is driven by comparison to public stock prices as sold in the markets. It is generally recognized that shares trading on the market reflect the price of minority shares; that is, shares without any accompanying benefit of control. ${ }^{68}$ The price of these shares therefore

[^30]is generally thought to include a minority discount. ${ }^{69}$ To honor the Supreme Court's teaching that plaintiffs should receive their pro rata share of the entity as a going concern, this court's decisions adjust minority trading multiples to account for the implied discount, in order to accurately arrive at a fair value of the entire entity.

The comparable companies method I have just described has frequently been used by our courts and is a common technique of real world financial professionals. I believe it to be relevant here and will give the technique substantial weight.

Unlike the plaintiffs, I do not find the factors that they mention to be barriers to a responsible comparable companies valuation of PFPC. For one thing, several of the factors, including PFPC’s mundane performance in 2002, are real and would not be ignored by any person deciding whether to buy the company. Moreover, as we shall see, Puglisi accounted for this in his comparable companies valuation, as I will, by basing his analysis on a year - 2004 — in which PFPC was predicted to experience extremely healthy returns. ${ }^{70}$

Perhaps most important, I find the plaintiffs' protestations that this method is an unreliable approach to valuing PFPC to be more convenient, than convincing. Although Margolin questions the relevance of the comparable companies technique, the lead

[^31]plaintiff Andaloro has, by his own past conduct, repeatedly admitted that this technique should not be ignored in valuing PFPC. ${ }^{71}$ That is not surprising as the original concept was that PFPC could be brought public and somehow capture a multiple like those of the Big Six or Core Four. Andaloro and several other of the plaintiffs have, before the litigation, viewed this as a reliable technique to help set the prices at which they could buy into PFPC. ${ }^{72}$ In my view, it is no less so as of the Merger date. In this regard, it is important to note in valuing a private company such as PFPC, a real world buyer would try to derive some insight into PFPC's value by assessing what value would result if PFPC traded at multiples of cash flow similar to comparable companies in the industry.

Here, this method can be more reliably deployed than in most cases. Margolin, after all, conceded that the Big Six were sufficiently comparable to be used to derive a proxy beta for PFPC. He is not convinced that the two members of the Big Six that are not members of the Core Four are sufficiently comparable to be used, not just to help determine the discount rate in a DCF, but also the all-important multiple in a comparable companies valuation. He does not quibble about the Core Four, and, of course, plaintiff Andaloro concedes that the Core Four have been consistently good comparables. At most, therefore, there is a dispute between the plaintiffs and Puglisi about whether a

[^32]comparable companies valuation of PFPC should be based on the Core Four or the entire Big Six. ${ }^{73}$

There are also a few other disputes about application, such as how to correct for the minority discount and how to address PFPC's poor 2002 performance. But none of these prevents a responsible comparable companies valuation. Therefore, I turn to performing that valuation now, and describing the adjustments I have made to Puglisi's valuation to take into account some of the plaintiffs' concerns.

## 1. The Adjustment Of The Minority Discount

Although both experts acknowledge the necessity to adjust the multiples yielded from the comparables to eliminate the minority discount, they dispute the best way to account for it. Puglisi adopts the standard method of correcting for this oversight at the end of his analysis by adjusting his resulting value of equity by a premium derived from third-party merger transactions (i.e., sales of entire companies) to correct for the implicit minority. Puglisi’s adjustment of $38 \%$ was very generous to the plaintiffs, as he did not seek to exclude any portion of the average premia from his sample to account for the sharing of synergies by the buyer with the seller. ${ }^{74}$ Margolin, who did not perform a

[^33]comparable companies analysis of his own, nevertheless attacks Puglisi for only applying the $38 \%$ premium to his final equity value rather than directly to the trading multiples of the comparable companies. But Puglisi's method is the most responsible manner to make the adjustment. ${ }^{75}$ What is being corrected for is the difference between the trading price of a minority share and the trading price if all the shares were sold. The premium data Puglisi used is derived from third-party acquisition transactions. That premia is measured by the difference between the prices of minority trades in the sample's shares before announcement and the price paid in the acquisition transactions. By first calculating a minority equity value for PFPC shares based on the minority values of the comparables, and then adding an acquisition premium to that minority equity, Puglisi's method best mirrors the real word. It also avoids lopping an equity premium on the portion of the comparables' enterprise value that is comprised of debt.

In sum, I find Puglisi’s method of adjustment to be, if anything, overly favorable to the plaintiffs and use it without alteration in my own valuation. In so concluding, I am

[^34]consistent with prior decisions of the court approving this method of adjusting for the minority discount. ${ }^{76}$

## 2. Which Comparables Should Be Given Weight And How Much?

As indicated, various institutions and individuals, including plaintiff Andaloro, have used the Big Six in conducting valuations of PFPC. Andaloro says that the Core Four are, to his mind, the pure play comparables. He has good reason to say that, as those four are the most similar to the PFPC. That said, I agree with Puglisi that the other members of the Big Six are sufficiently comparable to be given weight in a comparable companies valuation, and that useful data is lost if the full Big Six is not considered in some fashion. Although Margolin is right to say that a somewhat higher standard of comparability should be applied for selecting comparables for a comparable companies valuation than for use in coming up with a proxy beta in a DCF, his use of the Big Six in the context of generating a beta, goes a long way towards showing that Puglisi had a reasoned basis to use all six.

The two members of the Big Six that are not in the Core Four are State Street and Sungard Data Systems. State Street and Sungard are not "pure plays," because while they shared some lines of business with PFPC, they also had other distinct lines of business that PFPC did not share; therefore, they are somewhat less comparable than the other four. That said, they also compete with PFPC in some important product lines and service many of the same kinds of customers. For these reasons, the Core Four were given weight more consistently in past valuations of PFPC than the full Big Six, although

[^35]the full Big Six was frequently considered relevant. ${ }^{77}$ By way of example, in March 2000, for example, Andaloro (and Marsini) sent a valuation to Lazard in connection with valuing the company so that PFPC options might be issued to PFPC executives. In that communication, Andaloro gave the comparable companies more weight than other valuation techniques and focused his valuation on the Core Four. ${ }^{78}$ Whereas, in July 2002, PFPC received a comparable companies valuation from SSB using the entire Big Six as comparables. ${ }^{79}$

In my view, it provides the best insight into value to give more weight to the Core Four, but to also give weight to the Big Six. I will do so by performing two comparable companies valuations, one using the entire Big Six, and the other using just the Core Four. By this means, I weight the analysis towards the Core Four in a marked way, as the plaintiffs imply I should, while still capturing valuable information from the Big Six.

## 3. Calculating the Market Multiples of The Six Companies

Because Margolin does not perform a comparable companies analysis himself, the plaintiffs have mostly resorted to criticizing Puglisi's analysis. In his analysis, Puglisi used the median multiples of the Big Six. In order to account for the poor performance of PFPC in 2002, Puglisi used multiples derived from the Big Six for 2004 forward earnings and applied them to the management projections for PFPC for 2004. By doing this, Puglisi produced a valuation materially higher than would have resulted had he simply

[^36]used PFPC's 2002 results or its estimated 2003 results and multiplied those results by the median multiples for the Big Six for those years. But, by relying on 2004, Puglisi was forced to rely on analyst projections of earnings for the Big Six.

Although the plaintiffs criticize Puglisi for relying on the analyst community given its recent track record, I find Puglisi's method a credible one and, most important, one that, if anything, is likely to overstate PFPC's value on the Merger date. By using these 2004 estimates, which are likely, if anything, to be more bullish than they should have been, Puglisi fairly took into account the plaintiffs' concern about PFPC's poor performance in 2002. The 2004 PFPC estimates were for very healthy results and using forward multiples for the Big Six permitted Puglisi to incorporate the market's expectations about industry growth in a manner that gave PFPC credit for its expected improved performance in that year. ${ }^{80}$ In other words, I find Puglisi’s use of 2004 as the primary basis for his comparable companies valuation reasonable, and even generous.

Similarly, I find no basis to tamper with Puglisi's choice of the median as the correct multiple to use. Although the plaintiffs try to claim that PFPC was somehow superior to some of the comparables, I find nothing in the record to buttress that contention, other then PFPC's hopeful aspirations in that direction. Although PFPC was not noticeably weaker than the Big Six, neither was it materially and consistently

[^37]stronger, when all factors are considered. Given that, the use of the median of the Big Six by Puglisi was reasonable.

Of course, I have already noted my intention to give more weight to the Core Four. Consistent with Puglisi, I will do so by considering the median multiple for the Core Four’s 2004 estimated EBITDA. Likewise, I will adjust for the Retirement Services transaction and lower the value of PFPC's net debt, consistent with my treatment of those issues in my DCF valuation. ${ }^{81}$

## 4. Final Comparable Companies Valuation

When all these adjustments are taken into account, I come up with a comparable companies valuation for PFPC of $\$ 34.99$. That figure is the average of the $\$ 42.89$ per share amount derived from my Core Four valuation, which used an EBITDA multiple of 8.5, the median of the Core Four as calculated from Puglisi's exhibit, and the $\$ 27.08$ per share amount from my Big Six valuation, which used an EBITDA multiple of \$6.7. ${ }^{82}$

## C. Weighing The Analyses And Coming To A Final Value Figure

Because I am fortunate enough to have responsible management projections for the period from the Merger until 2007, and because a DCF valuation is the best technique for valuing an entity when the necessary information regarding the required inputs is available, I give that method 75\% weight in reaching my final value conclusion. I do not, however, give it exclusive weight as I believe that the insight on value provided by the comparable companies method should not be ignored, given the availability of a good

[^38]array of solid comparables and given the consistent use of this method by the plaintiffs and the defendants to value PFPC for real world purposes.

When this weighting is taken into account, I come to a fair value for PFPC as of the Merger date of $\$ 32.81$ per share.

## D. Interest

Finally, I come to a determination of the appropriate interest to apply. Only the defendants bothered to address this issue by calculating an interest rate different than the legal rate of interest. The defendants attempted to follow an approach that has been endorsed by our court that involves an equal weighting of the surviving respondent company's cost of borrowing and a prudent investor rate. This formula is designed to further two policy objectives. The focus on the respondent's borrowing rate is to ensure that the respondent does not reap a windfall by being able to use the petitioners' funds without having to pay the equivalent of the cost that the respondent would have had to incur to borrow the funds in the market. The focus on the prudent investor rate is to compensate the petitioners for their lost opportunity to invest the funds in the

[^39]respondents' possession. ${ }^{83}$ The plaintiffs agree that the defendants focused on the correct factors, but they complain that the defendants' calculation of PFPC's cost of borrowing is flawed. They urge me, without any useful help from them, to calculate a different cost of borrowing and to weigh that with the defendants' calculation of the prudent investor rate, which the plaintiffs do not dispute, in order to calculate the rate of interest.

The plaintiffs' beef about PFPC's cost of borrowing is a just one, in my view. The defendants base PFPC's cost of borrowing on a line of credit PFPC had from PNC itself. Candidly, I have recently expressed the view, and I adhere to it now, that it makes little policy sense to focus narrowly on the actual surviving company in the merger for purposes of determining the appropriate cost of borrowing in setting a pre- and postjudgment interest rate in an appraisal. Why? Because in many cases, as here, the party that actually benefits from the use of the petitioners' funds is not the respondent corporation but the corporate parent that now owns $100 \%$ of it. Unless the respondent's cost of borrowing is a real one, based on the cost that the respondent would have to pay to a third party to obtain funds, the rote application of the approach will fail to serve the policy purpose that justifies its use. That is the case here.

The line of credit that PFPC maintains with PNC is, by the defendants' own admission, not based on a real world market check. It is likely the case that PFPC, even independent of any guarantee by PNC, could obtain a loan or line of credit for the amount of funds at issue in this case - the consideration that would have been paid to Andaloro

[^40]and Perlsweig in the Merger (and any underpayment to the plaintiffs as a whole) - given its own revenues. But I have no indication of the market rate that it would have cost PFPC to obtain those funds. In this circumstance, it would also be fair to look to PNC's cost of borrowing, as it is, in economic reality, PNC (and not its wholly-owned subsidiaries Holding or PFPC) that stood to gain from holding the plaintiffs’ funds. But the record is also devoid of evidence of the rate at which PNC could have borrowed the funds.

Given the defendants' failure to justify their proffered rate of interest and the failure of the plaintiffs to calculate their own approach to interest, I will employ, as other of our cases have recently done, the legal rate of interest as a default rate, compounded quarterly. ${ }^{84}$ In so doing, I decline the plaintiffs’ invitation for me to undertake my own unguided adventure in the weedy field of judicial interest rate setting. Because parties on both sides of cases of this kind ordinarily have little economic incentive to rationally address the complexities raised by the current statutory regime, it would seem that the crafting of a specific legislative interest formula, which also addresses the frequency of compounding, for use in appraisal proceedings is both feasible and desirable for all affected constituencies. Until such a formula is adopted, however, it is an unwise use of judicial resources for the court, without adequate assistance from the parties, to attempt to estimate the parties’ costs of borrowing or determine prudent investor rates. Rather, in

[^41]that case, it makes more sense to simply revert to the legal rate and move on to deciding the next case. That is what I do here.

## IV. Conclusion

For the reasons discussed above, I find that the fair value of PFPC on the date of the Merger to be $\$ 32.81$ per share. The rate of interest to be applied to that amount for purposes of the consolidated appraisal and fiduciary duty actions is the legal rate of interest, compounded quarterly. The defendants, upon notice as to form to the plaintiffs, shall submit an implementing order within 10 days.


[^0]:    ${ }^{1}$ Since the filing of the fiduciary case, the plaintiffs have twice amended their complaint; the operative complaint in that case therefore is the Second Amended Complaint, filed October 28, 2003.

[^1]:    ${ }^{2}$ As a general matter, I found Dr. Puglisi, who is far more experienced in corporate finance both from his long career as a professor, from his real world business endeavors, and from his work as an expert witness, a much clearer, more helpful, and convincing witness. Dr. Margolin's report is, to put it gently, difficult going and not as persuasively reasoned. He is far less experienced in valuation and his trial testimony was difficult to follow. That said, there are issues on which I find myself more inclined in Margolin's direction than in Puglisi's and I ultimately reach a result materially different than either.
    ${ }^{3}$ These are the facts as I find them after trial.
    ${ }^{4}$ Try saying it five times fast.

[^2]:    ${ }^{5}$ Lest there be any confusion, PFPC existed in some form for several years before 1999. The PFPC referred to here is the new PFPC Worldwide, Inc. that had been formed as a part of the restructuring Project Brandywine.

[^3]:    ${ }^{6}$ Andaloro does not allege or suggest that PFPC had any contractual obligation to provide a liquidity event. Tr. at 106-07.
    ${ }^{7}$ This is a variation of the so-called market method of valuation.

[^4]:    ${ }^{8}$ This is a variation of the method of valuation often called an income approach.
    ${ }^{9}$ See JX 162; JX 178.
    ${ }^{10}$ See Tr. at 30-32 (discussing PFPC's peers).

[^5]:    ${ }^{11}$ See Tr. 30-32, 74.
    ${ }^{12}$ This figure adjusts for two subsequent ten for one stock splits, which is to say that, at the time, these executives paid \$1020.00 per share. See JX 178; Tr. 56-57.
    ${ }^{13}$ See JX 178; Tr. 56-57.
    ${ }^{14}$ See JX 82 at 27.

[^6]:    ${ }^{15}$ PNC owned $100 \%$ of PFPC's immediate parent, Holding, which in turn owned $98 \%$ of PFPC. Additionally, several directors and officers of PNC sat on PFPC's board of directors, including Timothy Shack, PFPC's CEO at the time of the Merger, who had been PNC's CIO before that appointment and continued in that capacity on a part time basis. Shack receives his paycheck from PNC, not PFPC. Shack Dep. at 24-25. PNC's control was so complete, that the debt instruments between PNC and PFPC contain no change of control triggers that would require payment of the debt in the event of a change of control, presumably because such protections were redundant - no sale could occur without PNC's consent as a stockholder and PNC did not and obviously would not consent unless its debt was paid off before the equity holders received payments.
    ${ }^{16}$ See JX 261, at R016687 (itemizing these amounts and attaching the underlying note documents supporting them).

[^7]:    ${ }^{17}$ Id.
    ${ }^{18}$ See Pl. Op. Post Tr. Br. at 39-40. I find this argument even less compelling because this circumstance existed from the get-go. Each of the investing managers, self-described sophisticated investors, was aware of the relationship with PNC, that PNC intended quite openly to control the destiny of PFPC's excess cash flows through its debt, and that the equity would likely receive no dividends in the near-term. But also knowing that, to the extent the IPO plan could be implemented, management was invited to ride high on the coattails of PNC as it cashed in on its high multiple businesses in the public markets.

[^8]:    ${ }^{19}$ In their answering post-trial brief at pages 19 to 22 and 27 to 30 , the defendants have fairly gathered the abundant record evidence that supports this conclusion.

[^9]:    ${ }^{20}$ These valuations included a Salomon Smith Barney ("SSB") valuation dated March 28, 2002, valuing the stock as of December 31, 2001 (JX 154); a Lazard valuation dated June 2002 (JX 207); and a second SSB valuation dated July 3, 2003, valuing the stock as of April 30, 2002 (JX 208).

[^10]:    ${ }^{21}$ JX 165 (articulating Andaloro’s assessment of the situation in an August 1, 2002 memo:
    "[f]ailure to put forth and openly discuss expectations for minority positions causes escalating concern. . . . As time goes on this matter will only become more complex and difficult.").
    ${ }^{22}$ JX 252 at R015157. This PFPC Business Risk Profile, dated 1/14/2003 notes in discussing the minority shares, "[a]bsent an expeditious solution, the situation could become contentious and could put PFPC at risk in motivating and retaining key employees." Shack credibly testified that these concerns were shared with PNC and taken seriously at the time. Tr. 959-60.

[^11]:    ${ }^{23}$ As of the time of the ABD purchase in May 2000, Lemay's 206,470 shares received in the transaction were valued at $\$ 59.50$ per share. But Lemay also obtained a top-up right in the transaction, providing that if PFPC's shares were valued at a lower valuation within three years, the number of shares that he was entitled to would as much as double. As a result of this provision in the ABD transaction, PNC agreed to double Lemay's shares to 412,940 in connection with the Merger, retroactively pricing their initial value at $\$ 29.75$ per share.

[^12]:    ${ }^{24}$ JX 159.
    ${ }^{25}$ See Tr. 109-10 (Andaloro stating that $\$ 35$ per share was a minimum acceptable value), Tr. 142-43 (Gramlich indicating that he told Whiteside at PNC that Andaloro had indicated \$35 per share was an acceptable minimum).
    ${ }^{26}$ Tr. 109-10.

[^13]:    ${ }^{27}$ PNC persuaded Deloitte \& Touche that, given the premiums often paid in going private transactions, \$34.26 per share was within the range of reasonable value. See JX 254.

[^14]:    ${ }^{28}$ See, e.g., Pl. Op. Pre-Trial Br. at 22-23 (citing Ryan v. Tad’s Enterprises, Inc., 709 A.2d 682, 699 (Del Ch. 1996) for the proposition that "[where directors] have been adjudicated in breach of their duty of loyalty, the damages award will not be limited to what would be recoverable in statutory appraisal . . . . Rather, the Court will exercise its discretion to craft from the 'panoply of equitable remedies' a damage award that approximates a price the board would have approved absent a breach of duty.") (citations omitted).

[^15]:    ${ }^{29}$ That is, I have more than honored the words of Tad's Enterprises cited in note 28. I believe $\$ 34.26$ per share was a price that a well-motivated board trying to pay at or near the top range of possible fair values would have paid to try to treat employee-stockholders more than fairly. A price in the middle of a fair range of values - a price that would have represented fair treatment - would have been materially lower than $\$ 34.26$ per share.
    ${ }^{30} 8$ Del. C. § 262(h).

[^16]:    ${ }^{31}$ Universal City Studios, Inc. v. Francis I. DuPont \& Co., 334 A.2d 216, 218 (Del. 1975).
    ${ }^{32}$ Cede \& Co. v. Technicolor, Inc., 684 A.2d 289, 299 (Del. 1996) (citing Rapid-American Corp. v. Harris, 603 A.2d 796, 804 (Del. 1992)).
    ${ }^{33}$ See Gonsalves v. Straight Arrow Publishers, 701 A.2d 357, 361-62 (Del. 1997).
    ${ }^{34}$ See, e.g. Dobler v. Montgomery Cellular Holding Co., 2004 WL 2271592, at *8 (Del. Ch. Sept. 30, 2004) (noting that the DCF approach is "routinely utilized by this court in appraisal actions"), aff'd in relevant part, 2005 WL 1936157 (Del. Aug.1, 2005); see also Donald J. Wolfe, Jr. \& Michael A. Pittenger, Corporate and Commercial Practice in the Delaware Court of Chancery, § 8-10[d], 8-161 (Release No. 5, 2004). ("Since Weinberger, nearly all appraisals have utilized some type of DCF methodology . . . ."). I stress "used responsibly," for there are situations when the available data will not support the use of the DCF model. See, e.g., Finkelstein v. Liberty Digital, Inc., 2005 WL 1074364 (Del. Ch. Apr. 25, 2005).

[^17]:    ${ }^{35}$ See Kleinwort Benson Ltd. v. Silgan Corp., 1995 WL 376911, at *5-10 (Del. Ch. June 15, 1995) for a straightforward application and explanation of this methodology. See also Shannon P. Pratt, Valuing a Business, 204-220 (4th ed. 2000).

[^18]:    ${ }^{36}$ Management projections show an increase of $\$ 1,073.8$ to $\$ 1,217.5$ million in operating revenue from 2006 to 2007. This represents an increase of $\$ 143.7$ million or $13.4 \%$ of $\$ 1,073.8$ million. For the same period, management projections indicate an increase from $\$ 151.2$ million to $\$ 196.1$ million in net income, a difference of $\$ 44.9$ million or $29.7 \%$ of $\$ 151.2$ million. Finally, the same management figures show an increase from $\$ 177.5$ to $\$ 215.5$, a difference of $\$ 38$ million or $21.4 \%$ of $\$ 177.5$ million.

[^19]:    ${ }^{37}$ Along these same lines, some PNC executives apparently thought the management projections were far too optimistic at the time; credible witness testimony indicated that PNC nonetheless decided to use them in order to be fair to the minority stockholders and to attempt to forge a peaceful resolution with them.
    ${ }^{38}$ In this regard, I note that PFPC did not, as of the Merger, intend to embark on a serious effort to enter the international market. In fact, the record is that PFPC anticipated only modest revenues from any work outside North America. But one of the more interesting characteristics of advancing globalization is that if you will not come to it, that does not mean it will not come to you. In other words, PFPC's more likely encounter with globalization is likely to prove to be protecting its domestic market share from lower-cost, global service providers intent on moving into the comparatively lucrative American investment fund services market.

[^20]:    ${ }^{39}$ I reserve one caveat for an adjustment to the projections based on the likely imminent sale of the Retirement Services business at the time of the Merger, which I discuss next.
    ${ }^{40} \mathrm{Tr} .886,888-94$; see also JX 210 (requesting realistic and not stretch forecasts).
    ${ }^{41}$ See JX 224 at R013517-18.
    ${ }^{42}$ See JX 157 at R006057-58.
    ${ }^{43}$ See Cede \& Co. v. Technicolor, Inc., 2003 WL 23700218, at *7 (Del. Ch. Dec. 31, 2003) ("Contemporary pre-merger management projections are particularly useful in the appraisal context because management projections, by definition, are not tainted by post-merger hindsight and are usually created by an impartial body."), aff'd in relevant part, 875 A.2d 602 (Del. 2005); see also Gholl v. eMachines, Inc., 2004 WL 2847865, at *7 (Del. Ch. Nov. 24, 2004) (same), aff'd, 875 A.2d. 632 (Del. 2005) (TABLE).

[^21]:    ${ }^{44}$ The plaintiffs do not quibble with that estimate. See C. Reese letter of 8/16/05 at 2 .
    ${ }^{45}$ The plaintiffs also say that the projections should somehow be adjusted because a belowmarket services contract was expiring. The record supports the defendants' contrary position that no adjustment on this score should be made.

[^22]:    ${ }^{46}$ See Tr. at 704-05 (Margolin: "[V]alue doesn’t change based on the model you apply. . . . [I]f you apply the model right, the value is distributed differently between discrete periods and terminal periods."); Tr. at 1131-32 (Puglisi:"The three-stage model makes that [decrease in growth] explicit. The two-stage model makes that transition period implicit. If one is doing the analysis correctly with internal consistency, it really shouldn't make any difference.").

[^23]:    ${ }^{47}$ See JX 82, Ex. M.
    ${ }^{48} \mathrm{Tr}$. at 706-07.
    ${ }^{49}$ My attempts to understand how Margolin came to embrace 5\% as his terminal growth rate did not yield logical clarity but a mystical fog. See Tr. 325-40. According to Margolin, he did not choose his 5\% terminal growth rate; he "spiraled" into that figure through an incomprehensible "iterative process." Rather than a reasoned exercise in applied social science, Margolin appears to have channeled inspiration, more like a great songwriter than a valuation expert. If I had to guess, the spiraling resulted from reasoning back into a terminal growth rate from a desired final value. But that would be a guess. Although I understand how a terminal growth rate should be chosen, based on finance literature, I confessedly do not understand how Margolin spiraled into his choice to lard a high 5\% terminal value onto a lavishly bullish second stage.

[^24]:    ${ }^{50}$ Even Margolin acknowledges that PFPC was a mature company in a mature industry. Tr. at 615. This fact suggests that price competition was already well developed in the industry, confirming PFPC employee testimony to that effect as Margolin also acknowledged. Tr. at 61516. Together, these factors support the inference that the exceptional growth beyond 2007 that Margolin forecast was unlikely.
    ${ }^{51}$ Cost reductions, of course, ultimately meet a floor in that there is some non-zero cost that will always be associated with the production of the products and services provided. While these cost reductions can be large when first embarked upon, especially when combined with the streamlining of an ongoing integration process, ultimately, like wringing excess water from a

[^25]:    damp cloth, the excess has been removed and the resulting lean, mean corporate machine has no remaining excess liquid to purge. Further, to the extent the plaintiffs complain that Puglisi failed to take into account the savings PFPC hoped to reap in the years after 2002 for integrating ISG, the management projections included those projected savings and therefore Puglisi’s DCF and his comparable companies valuation both took those savings, and the increased earnings they produced, into account.
    ${ }^{52}$ See JX 82 at Ex. M.
    ${ }^{53}$ See Tr. 949-51 (PFPC’s CEO Shack discussing the out year projections as aspirational, designed in part to encourage growth, though they were the best guess); Tr. 835 (PFPC’s CFO Marsini noting that current information should get greater reliance and that the out years are "basically just a guess and a best estimate.").
    ${ }^{54}$ See the discussion of Tad's Enterprises in notes 28 and 29.

[^26]:    ${ }^{55}$ In an unusual complaint coming from a group of plaintiffs, the plaintiffs here say that this court may not hypothesize what would happen in a sale of PFPC in order to derive an insight into the company's value as a going concern. That is not correct. What the company - as a standalone going concern - might fetch from a third-party after an auction is relevant to appraisal value. Union Illinois 1995 Investment Limited Partnership v. Union Financial Group, Ltd., 847 A.2d 340 (Del. Ch. 2004); Prescott Group Small Cap, L.P. v. Coleman Co., 2004 WL 2059515 (Del. Ch. Sept. 8, 2004). What has to be factored out is any value that might be attributable to synergies that the selling entity might generate when combined with the buying company, regardless of whether a share of such synergies are typically paid to the seller to induce the sales transaction. Indeed, plaintiffs typically insist on the use of data from premium-generating merger transactions to correct for minority discounts thought to be imbedded in valuations conducted under the comparable companies method. Here, any hypothesized transaction involving the sale of PFPC at a premium that would have generated on March 6, 2003 a price for

[^27]:    ${ }^{58}$ In fact, after the Merger, PFPC did begin making large repayments on its debt, some \$270 million in 2003 and 2004. Tr. 837, 1014-15. Those amounts are far too substantial to be motivated by this litigation.
    ${ }^{59}$ Margolin essentially argued that if one is going to discount PFPC's future cash flows at X\% then one also had to value its debt at $\mathrm{X} \%$. At trial, he seemed to concede that a target capital structure of $100 \%$ equity would not undervalue PFPC if a responsible estimate of the fair market

[^28]:    ${ }^{61}$ See, e.g., Aswath Damodaran, Applied Corporate Finance, 109 (2d. ed. 2005) ("[T]he trade off [between two and five year betas] is simple: a longer estimation provides more data, but the firm itself might have changed its risks characteristics over the time period."). The longer five year period might be thought to provide an estimate that includes price movements in both bull

[^29]:    ${ }^{65}$ I note that, keeping my other assumptions regarding growth constant, discounting at $13.92 \%$, assuming a corresponding debt discount rate of $14.00 \%$, would yield a fair value of $\$ 29.76$ in my DCF model.
    ${ }^{66}$ The plaintiffs have argued that if a valuation based on comparables is to be performed, then it should be based on a single transaction: PFPC's acquisition of ISG, the terms of which were negotiated in July 1999. I find this single data point comparable transactions analysis unreasonable. Not only is it based on only one comparable transaction, the plaintiffs ignore the reality that the market bubble of 1999 had burst by 2003, reducing the market multiples of all the Big Six substantially by the time of the Merger.

[^30]:    ${ }^{67}$ See Agranoff v. Miller, 791 A.2d 880, 892 (Del. Ch. 2001); see also Bomarko, Inc. v. Int'l Telecharge, Inc., 794 A.2d 1161 (Del. Ch. 1999), aff'd, 766 A.2d 437 (Del. 2000) (deploying this valuation method); Borruso v. Communications Telesystems Int'l, 753 A.2d 451 (Del. Ch. 1999) (same).
    ${ }^{68}$ See Shannon P. Pratt et al., Valuing a Business, 194-95, 210 (3d ed. 1996).

[^31]:    ${ }^{69}$ See, e.g., Agranoff v. Miller, 791 A.2d 880, 892 (Del. Ch. 2001); Bomarko, Inc. v. Int’l Telecharge, Inc., 794 A.2d 1161 (Del. Ch. 1999), aff'd, 766 A.2d 437 (Del. 2000); Borruso v. Communications Telesystems Int'l, 753 A.2d 451 (Del. Ch. 1999). There is some academic dispute about whether all companies' shares trade at a discounted level. What is not disputable is that, on average, entire firms sell at a premium to the pre-announcement trading in minority blocks of their shares, an unsurprising phenomena recognizing the difference in what is being bought. Likewise, when controllers seek to buy out public minorities, the transactions, on average, occur at a premium to the pre-offer trading price of the minority shares.
    ${ }^{70}$ I think a credible comparable companies analysis could be done using either 2002 or 2003 data but, like Puglisi, have used a year, 2004, that is more generous to the plaintiffs.

[^32]:    ${ }^{71}$ See, e.g., Tr. at 69-70; 82.
    ${ }^{72}$ See, JX 162 (Lazard using the Core Four comparables in initially valuing the minority shares); JX 178 (establishing the initial 1999 buy in price based on the Lazard valuation).

[^33]:    ${ }^{73}$ See JX 82 at 47 (expressing Margolin's lack of faith in the comparable companies methodology).
    ${ }^{74}$ JX 225 at 20. Puglisi candidly admitted that he cannot find reliable data supporting the inference that higher premiums are paid in deals that are expected to yield synergies for the buyer than in deals that are not of this nature. In prior case law, this court has dealt with this empirical gap by simply backing out some portion of the average premium and counting it as synergies. The reason it has done so is that the judicially-created "going concern" definition, if adhered to rigorously, does not allow the court to award even that share of the synergies that a seller would likely get paid in the premium by the buyer in order to buy the company and reap the benefits of the rest. This facet of our law is discussed in Union Illinois and Agranoff for the interested reader. Agranoff v. Miller, 791 A.2d 880 (Del. Ch. 2001); Union Illinois 1995

[^34]:    Investment Limited Partnership v. Union Financial Group, Ltd., 847 A.2d 340 (Del. Ch. 2004). Because Puglisi did not attempt to adjust synergies out, I do not do so independently, although I note that not doing so again results in a tilt towards the plaintiffs. It would be appropriate to reduce the $38 \%$ figure used by Puglisi to $30 \%$ to account for this factor.
    ${ }^{75}$ See Borruso v. Communications Telesystems Int'l, 753 A.2d 451, 457-59 (Del. Ch. 1999) (explicitly applying the control premium in this way). Among other sources supporting Puglisi's approach to the minority discount by applying the premium exclusively to the equity value is Bradford Cornell, Corporate Valuation: Tools for Effective Appraisal and Decision Making, 247-49 (1993). Cornell also makes the point that it is important not to add a control premium to the portion of the enterprise value represented by debt, absent unusual circumstances not applicable here.

[^35]:    ${ }^{76}$ See, e.g., Borruso, 753 A.2d 451.

[^36]:    ${ }^{77}$ See, e.g. JX 197, at R015374, R015376 (a valuation performed by KPMG in July 2001 using all six comparables, but weighting the results towards BISYS, DST and IFIN, finding that this subset was the most similar to PFPC).
    ${ }^{78}$ Tr. 73-5. JX 192.
    ${ }^{79}$ JX 208.

[^37]:    ${ }^{80}$ I note that Margolin relied on industry analysts' reports of the expected growth of the industry in trying to justify the second stage and terminal growth rates in his DCF model. Although I disagree with the inferences he drew from those reports, I agree with him that it is sometimes necessary and responsible to consider such information in a valuation. Puglisi did just that.

[^38]:    ${ }^{81} \mathrm{JX} 82$ at 46.

[^39]:    ${ }^{82}$ Both values are produced using the template that the defendants provided and the plaintiffs ratified. As indicated above, for consistency I have applied my calculation of the market value of the existing debt as $\$ 963.3$ million in this analysis as well, which largely explains the divergence of my $\$ 27.08$ per share valuation from Puglisi’s $\$ 18.36$ per share estimate, even using the same 6.7 median multiple.

    At various times in the litigation, Margolin suggested that using the mean as opposed to the median, or vice versa, might misstate the value of PFPC. Lest a future objection arise in response to this analysis, I note that conducting my comparable companies analysis using the mean produces nearly identical, and marginally lower values. The mean multiple of the Big Six is 7.1 and using it yields a fair value of $\$ 30.59$. The mean multiple of the Core Four is 7.8 , and yields a fair value of $\$ 36.74$ per share. Averaging these results produces a final fair value of $\$ 33.67$ per share. Given that, the $\$ 34.99$ value that I derive via my comparable companies analysis is, once again, charitable to the plaintiffs.

[^40]:    ${ }^{83}$ See Finkelstein v. Liberty Digital, Inc., 2005 WL 1074364 (Del. Ch. Apr. 25, 2005); Grimes v. Vitalink Communications Corp., 1997 WL 538676, at *10-12 (Del. Ch. Aug. 28, 1997); Prescott Group Small Cap, L.P. v. Coleman Co., 2004 WL 2059515, at *34 (Del. Ch. Sept. 8, 2004).

[^41]:    ${ }^{84}$ See Taylor v. American Specialty Retailing Group, Inc., 2003 WL 2175 2752, at (Del. Ch. July 25,2003 ) ("[T]he legal rate of interest most nearly resembles a return on a bond, which typically compounds quarterly")(citing Borruso, 753 A.2d 451, 461 (Del. Ch. 1999)).

