Calculating damages in ERISA litigation

The Journal of
Financial
Perspectives

EY

Building a better
working world

The EY Global Financial Services Institute brings together world-renowned thought leaders and practitioners from top-tier academic institutions, global financial services firms, public policy organizations and regulators to develop solutions to the most pertinent issues facing the financial services industry.

The Journal of Financial Perspectives aims to become the medium of choice for senior financial services executives from banking and capital markets, asset management and insurance, as well as academics and policy-makers who wish to keep abreast of the latest ideas from some of the world's foremost thought leaders in financial services. To achieve this objective, a board comprising of leading academic scholars and respected financial executives has been established to solicit articles that not only make genuine contributions to the most important topics, but are also practical in their focus. *The Journal* will be published three times a year.

gfsi.ey.com

Executive summary

Calculating damages in ERISA litigation

by Allen Ferrell, Greenfield Professor of Securities Law, Harvard Law School , and
Atanu Saha, Senior Vice President, Compass Lexeco

Whilst Employment Retirement Income Security Act (ERISA) class action suits, which focus on the management and handling of pension and retirement plans, are becoming increasingly common, there has been limited discussion as to how to calculate ERISA damages. This paper presents and discusses four different methodologies for calculating ERISA damages using data from actual ERISA litigation. These different methods can result in strikingly different damage estimates, from U.S.$3 million with one method, to well over U.S.$2 billion with another in the same set of circumstances. To choose the appropriate method, this article highlights the importance of linking the damage method to the cause of the ERISA liability.

Calculating damages in ERISA litigation

Allen Ferrell
Greenfield Professor of Securities Law, Harvard Law School

Atanu Saha
Senior Vice President, Compass Lexecon[1]

Abstract
In this paper we will present and discuss four different methodologies for calculating ERISA damages – what we will label the "best-performing fund," "portfolio redistribution," "most similar fund," and "10b-5 style" ERISA damage methods. For purposes of demonstrating how these ERISA damage methods work in practice we will use facts and data from an actual ERISA litigation matter. These different ERISA methods can result in strikingly different damage estimates. In the ERISA matter we analyze, for instance, aggregate damages can range from less than U.S.$3 million, using the "most similar fund" approach, to well over U.S.$2 billion using the "best-performing fund" ERISA damage method.

Introduction

Employment Retirement Income Security Act (ERISA) class actions, which focus on the management and handling of pension and retirement plans such as a company's 401(k) plan, constitute an important component of overall U.S. securities litigation activity. In particular, in the aftermath of the stock market collapse in 2001 and the credit crisis of 2007–2008 a number of ERISA lawsuits were filed as many companies' 401(k) and Employee Stock Ownership plans (ESOPs) plans suffered substantial losses. The ERISA litigation wave after 2001 includes lawsuits filed against Enron, Global Crossing, and Lucent and, in the wake of the credit crisis, ERISA lawsuits against AIG, Bank of America, Bear Stearns, Citigroup, Countrywide, Merrill Lynch, Morgan Stanley, State Street, UBS, Washington Mutual, and many others. ERISA cases can be attractive to bring as there is no need to prove that the defendants acted with scienter, i.e., acted with intent or recklessly, in order to establish liability under ERISA, a major hurdle for plaintiffs bringing a Rule 10b-5 action.[2] Rather, ERISA liability rests on a breach of a fiduciary obligation.

The settlement value of this litigation can be substantial. For instance, State Street recently settled its ERISA lawsuit for U.S.$89.75 million with Merrill Lynch settling its ERISA lawsuit for U.S.$75 million. Washington Mutual settled two different ERISA class action lawsuits, one for U.S.$49 million and the second for U.S.$20 million. Countrywide also recently settled its ERISA lawsuit for U.S.$55 million. They are not alone.[3] The record for the largest ERISA settlement remains to this day, however, the Enron ERISA litigation, in which there was an initial partial settlement for U.S.$85 million covered by Enron's insurance policies. A later settlement resulted in a further U.S.$356 million, albeit in the form of an unsecured claim against the bankruptcy estate.

Despite the commonality of these suits and their settlement value, there are no papers that we have been able to identify that address the issue of how to calculate ERISA damages. In this paper, we will present and discuss four different methodologies for calculating ERISA damages – what we will label the "best-performing fund,"

"portfolio redistribution," "most similar fund," and "10b-5 style" ERISA damage methods. For purposes of demonstrating how these ERISA damage methods work in practice we will use facts and data from an actual ERISA litigation matter. These different ERISA methods can result in strikingly different damage estimates. In the ERISA matter we analyze, for instance, aggregate damages can range from less than U.S.$3 million, using the "most similar fund" approach, to well over U.S.$2 billion using the "best-performing fund" ERISA damage method.

The next section will first present the two common plaintiffs' theories for ERISA liability – provision of an "imprudent" plan investment option and inadequate disclosures affecting the value of company stock which has been offered as an investment option. The following section will then present some descriptive statistics concerning our illustrative ERISA litigation matter. The penultimate section will then turn to presenting, discussing, and comparing the four ERISA damage methods. As we will discuss, the appropriate damage method will be informed by the basis for ERISA liability. In cases where liability is based on an inadequate disclosure claim, we will argue that "10b-5 style" damages are likely to be the most appropriate method. In other cases, the most appropriate damage method will often be the "most similar fund" approach.

Typical ERISA class action claims

There is a high degree of uniformity in the basic types of allegations presented in an ERISA action brought on behalf of a class of plan participants in a company's ERISA plan, such as the company 401(k) plan. More specifically, ERISA complaints typically present one, or both, of two basic breaches of fiduciary obligations theories as a basis for ERISA liability.[4] These lawsuits are often brought after plan participants have suffered substantial stock market losses as a result of holdings in the plan of company stock.

The first basic theory often presented is the claim that the plan fiduciaries provided inadequate disclosures to plan participants by either failing to disclose material information or disseminating misleading information, typically information relevant to the market's assessment of the value of the company stock. Plan participant stock losses are then realized once the market belatedly

---

2 If ERISA liability is based on a respondent superior theory, which is often the basis for a company's alleged liability in an ERISA suit, then most courts require a showing of scienter.
3 Some other notable ERISA settlements include Global Crossing (U.S.$79 million), Lucent (U.S.$69 million), the Williams Company (U.S.$55 million), Xerox (U.S.$51 million), Worldcom (U.S.$48 million), Household International (U.S.$46.5 million), and Dynegy (U.S.$30.75 million).

4 Only fiduciaries can have fiduciary obligations and as a result an extensive area of litigation in the ERISA context is whether a party is a "fiduciary" as that term is defined in Section 3(21)(A) of ERISA, 29 U.S.C. Section 1002(21)(A).

learns the truth as a result of a disclosure, finally correcting earlier inadequate disclosures. Liability on this basis is quite similar to a typical Rule 10b-5 class action alleging that the firm (and its officers and directors) disseminated fraudulent misinformation to the market (or failed to disclose material information that they had a duty to disclose) and thereby harmed the firm's shareholders who purchased at an inflated stock price.

The second basic theory also often presented as a basis for liability is the claim that the plan fiduciaries offered, and continued to offer, as an investment option to plan participants company stock when the fiduciaries knew or should have known that the company stock was an "imprudent" investment. One of the main factors often pointed to in order to substantiate the claim of "imprudence" is the inadequate disclosures relied upon when invoking the first theory. In this sense, the second theory can be a derivative of the first theory, hence the reason why the two theories are often simultaneously invoked.[5]

Consider, by way of example, the Countrywide ERISA complaint.[6] Both of these two theories are presented in this complaint as a basis for liability. Countrywide's 401(k) plan offered as an investment option Countywide stock to plan participants, Countrywide employees. And a number of plan participants in fact chose to place a portion of their 401(k) investment in Countrywide stock. According to the complaint, the value of Countrywide stock held by plan participants fell in value over the class period from U.S.$350 million to U.S.$80 million.

As for the first theory, the complaint alleges a breach of fiduciary obligation by the 401(k) Countrywide plan fiduciaries: as "Defendants failed to provide participants, and the market as a whole, with complete and accurate information regarding the true financial condition of the Company. As such, participants in the Plan could not appreciate the true risks presented by investments in Company stock and therefore could not make informed decisions regarding their investments in Company stock in the Plan."[7] As for the second theory, the complaint also asserted liability based on the claim that an "adequate or even cursory investigation by

Defendants would have revealed to a reasonable fiduciary that, under these circumstances, investment by the Plan in Countrywide stock was excessively and unduly risky, and, thus, imprudent. A prudent fiduciary acting under similar circumstances would have acted to protect participants against unnecessary losses and would have made different investment decisions."[8] This claim of imprudence is explicitly tied to the inadequate disclosure claim. The undisclosed problems at the firm are alleged to have caused "Countrywide's stock price and the price of the Fund [to be] artificially inflated making them an imprudent investment for the Plan."[9]

We will use for illustrative purposes the facts and data from an actual ERISA litigation matter. In this matter, a firm, call it ABC, had a 401(k) plan in which the value of the company's stock, one of the plan's available investment options (the ABC Company Stock Fund), fell substantially in value. Plaintiffs allege that the ABC 401(k) plan fiduciaries, in breach of their fiduciary obligations, failed to provide to plan participants certain disclosures that would have revealed that the company, and hence its stock, was worth far less than the market price. These disclosures should have been made, according to plaintiffs, as early as 31 July 2001. The disclosures to plan participants (and the market more generally) occurred only on 22 July 2002 and 23 July 2002, approximately a year later. The 22 July and 23 July 2002 corrective disclosures were associated with significant stock price drops in the price of ABC stock. In addition, plaintiffs further allege that the failure to provide these disclosures during the 31 July 2001 – 23 July 2002 time period resulted in a further breach of fiduciary obligations, given that the plan fiduciaries offered the company's stock as a plan investment option despite knowing that the company's stock was an "imprudent" investment. The price of ABC company stock fell during the class period by approximately 36%.

The class period in our illustrative ERISA matter therefore ran from 31 July 2001 to 23 July 2002, with class members consisting of any plan participants who held company stock in the 401(k) plan at any point during this time period. It is worth noting that unlike a Rule 10b-5 class action, class members in an ERISA matter can potentially include investors who merely held securities during the class period, such as a plan participant who invested in the ABC

5   See Niden, C., 2007, "Economic analysis in ERISA class actions involving employee investments in company stock," 44 *Benefits & Compensation Digest* 1, April
6   For the complaint, see http://www.oakbridgeins.com/clients/blog/countrywideerisacomplaint.pdf
7   Countrywide Complaint, ¶181.
8   Countrywide Complaint, ¶171.
9   Countrywide Complaint, ¶167

	Fund	Strategy	Participants[1]	July 2001 dollars		July 2002 dollars	
				Value	Percent	Value	Percent
(1)	ABC Company Stock Fund	Equity/growth	117,132	5,545,956,643	54.8%	3,547,985,159	46.3%
(2)	Stable value fund	Fixed income	33,906	1,071,420,592	10.6%	1,220,224,185	15.9%
(3)	S&P 500 index	Equity/growth	41,463	747,112,693	7.4%	540,313,742	7.1%
(4)	Aggressive growth[2]	Equity − small growth	28,361	458,976,762	4.5%	295,160,168	3.9%
(5)	Appreciation	Equity − large-cap	15,964	292,475,937	2.9%	241,964,417	3.2%
(6)	Emerging growth	Equity/growth	11,218	224,477,915	2.2%	133,047,644	1.7%
(7)	Russell 2000 Index	Equity/growth	22,664	203,804,945	2.0%	177,013,238	2.3%
(8)	Money funds cash portfolio	Fixed income - short term	12,485	193,553,590	1.9%	222,709,740	2.9%
(9)	Moderate focus	Fixed income/equity	14,482	165,610,031	1.6%	140,935,138	1.8%
(10)	Large-cap value	Equity/value	9,554	159,324,437	1.6%	118,059,373	1.5%
(11)	Fixed income securities[3]	Fixed income	11,855	127,726,423	1.3%	166,510,582	2.2%
(12)	Other[4]	n/a	n/a	924,237,057	9.1%	857,960,335	11.2%
	Total		**117,182**	**10,114,677,025**		**7,661,883,720**	**100.0%**

Table 1: Summary of retirement plan investment options and plan participation for company ABC (July 2001–July 2002)
Notes:
[1] Participant count as of July 2001.
[2] The fund considered to perform most similar to the company stock fund from July 2001 through July 2002.
[3] The fund considered to be the best-performing fund from July 2001 through July 2002.
[4] Twenty other fund options were offered to plan participants from July 2001 through July 2002.

Company Stock Fund prior to 31 July 2001 and continued to hold that position throughout the class period. In other words, there is no general requirement that investors, in order to be members of an ERISA class, purchase or sell securities during the class period.

The next section will present some descriptive statistics concerning the 401(k) plan in the ABC litigation matter that will provide the necessary context for our calculations of ERISA damages presented below.

Descriptive statistics for the ABC 401(k) plan
Before presenting some descriptive statistics for the ABC 401(k) plan it is worth briefly highlighting the nature of the individual ABC 401(k) plan participant data available to us during the class period. We have data on all plan participants' monthly fund level activity (withdrawals and deposits) and ending balances. We also have data on loans and loan repayments by participants from their 401(k) plan, which we will treat as withdrawals and deposits. Given the monthly frequency of our data, we assume that participants' withdrawals and deposits occur at lthe end of the month. We will use as a proxy, because of the frequency of our data, for participants' holdings as of 23 July 2002 (the end of the class period) plan participants' holdings as of 31 July 2002. Finally, we will present data only for plan participants that invested in the ABC Company

Stock Fund for at least one point in time during the class period. This focus on participants that invested in the ABC Company Stock Fund for at least one point during the class period is simply a function of the fact that we are interested in calculating potential ERISA damages where the asserted basis for ERISA liability is the handling of the ABC Company Stock Fund. This is reflected in the fact that the ERISA class in the ABC matter consists of any plan participant that held a position in the ABC Company Stock Fund at any point during the class period.

Table 1 presents a summary of ABC's 401(k) fund options and plan participation (fund name, strategy, participation by amount invested) as of July 2001 and July 2002 as it relates to the ABC Company Stock Fund (which is solely invested in ABC stock) and the next top ten funds, as measured by the amount collectively invested by plan participants.[10] In addition, the number of participants investing in each of these funds as of July 2001 is also presented with the total number of plan participants at this time

---

10 The total amount of funds invested by plan participants as of July 2001 in the twenty funds not separately listed in Table 1 constitute 9.1% of the total aggregate value (approximately U.S.$10.1 billion) of the 401(k) plan (excluding participants that never invested in the ABC Company Stock Fund during the class period). These twenty funds included funds with a variety of investment strategies, including fixed income government, fixed income/equity, equity international, equity/value, equity/growth, and equity large cap.

		July 2001				
		Dollars			Participants	
	Number of funds	Value	Percent		Number	Percent
(1)	One fund	1,261,732,369	12.5%		24,887	21.2%
(2)	Two funds	2,019,102,307	32.4%		24,323	42.0%
(3)	Three funds	1,621,189,251	48.5%		18,540	57.8%
(4)	Four funds	1,502,170,065	63.3%		17,066	72.4%
(5)	Five funds	1,225,525,468	75.4%		12,482	83.0%
(6)	Six funds	887,263,611	84.2%		7,831	89.7%
(7)	Seven funds	672,838,579	90.9%		5,284	94.2%
(8)	Eight or more funds	924,855,374	100.0%		6,769	100.0%
	Total	10,114,677,025	100.0%		117,182	100.0%

Table 2: Number of funds participants invested in July 2001

being 117,182. Putting aside the ABC Company Stock Fund, Table 1 documents a substantial degree of stability over the class period in terms of the percentage of the aggregate 401(k) funds allocated to each of the funds.

Turning to the ABC Company Stock Fund, Table 1 reports that the aggregate value of the ABC Company Stock Fund as of July 2001, approximately U.S.$5.5 billion, represents over half the aggregate value (54.8%) of the ABC 401(k) plan (again this figure excludes plan participants who never invested in the ABC Company Stock Fund). As of July, 2002, the aggregate value of the ABC Company Stock Fund held was approximately U.S.$3.5 billion, representing close to half the aggregate value (46.3%) of the 401(k) plan. Given the substantial allocation of the 401(k) funds to the ABC Company Stock Fund in conjunction with the approximately 36% decline suffered by ABC stock during the class period, it is not surprising that the U.S.$2 billion decrease in the value of the ABC Company Stock Fund during the class period represents a significant portion of the roughly U.S.$2.5 billion decrease in the aggregate value of the 401(k) plan over the class period.

Table 2 provides further information on fund participants' investment activities as of July 2001. Approximately 21% of fund participants invested in just one fund as of July 2001, representing 12.5% of the aggregate value of the 401(k) plan. The overwhelming majority of these participants were solely invested in the ABC Company Stock Fund. Given the roughly 36% decline in the price of ABC company's stock over the class period, these participants were particularly hard hit. Another

approximately 20% of plan participants were invested as of July 2001 in only two funds; for the overwhelming majority of these participants one of these two funds was the ABC Company Stock Fund. As Table 2 documents, almost a third of the aggregate value of the 401(k) represents the investments of plan participants that invested either in just one or two funds. It is worth noting in this context that the number of participants invested in each fund remained relatively constant over the class period. Various additional cut-offs in terms of number of funds invested in as of July 2001 are also reported in Table 2.

We will now turn to calculating ERISA damages, assuming that there is ERISA liability as a result of the alleged mishandling of the ABC Company Stock Fund during the class period.

ERISA damages
Section 409(a) of ERISA[11] requires that a plan fiduciary "make good to [the] plan any losses to the plan resulting from each such breach." The "breach" referenced in Section 409(a) is a breach of a fiduciary obligation. The definition of "losses," however, is left undefined in the ERISA statute and as a result courts have looked towards the common law of trusts for guidance. In an important and well-known opinion the Second Circuit in *Bierwirth v. Donovan*, 754 F.2d 1049 (1985), referencing the common law of trusts and prior ERISA case law, held that in some circumstances "losses" can refer to the difference between what was actually

---

11 29 U.S.C. Section 1109(a)

	Fund	Correlation with company stock	Cumulative return
(1)	ABC company stock	1.00	-35.6%
(2)	Stable value fund	0.24	6.7%
(3)	S&P 500 index	0.88	-24.5%
(4)	Aggressive growth[2]	0.92	-40.0%
(5)	Appreciation	0.88	-17.8%
(6)	Emerging growth	0.86	-36.4%
(7)	Russell 2000 index	0.81	-22.7%
(8)	Money funds cash portfolio	-0.01	2.2%
(9)	Moderate focus	0.89	-7.6%
(10)	Large-cap value	0.87	-25.5%
(11)	Fixed income securities[3]	-0.57	10.0%

Table 3: Cumulative returns of retirement plan fund options[1] and their correlation with ABC Company Stock Fund (July 2001–July 2002)
Notes:
[1] Only the largest fund options are depicted.
[2] The fund considered to perform most similar to the company stock fund from July 2001 through July 2002.
[3] The fund considered to be the best-performing fund from July 2001 through July 2002.

earned by the plan as a result of an imprudent investment versus "what the Plan would have earned had the funds been available for other Plan purposes." This line of inquiry suggested by the *Donovan* court is focused on a claim in which the asserted basis for ERISA liability is the offering by plan fiduciaries of an "imprudent" investment.

At the same time, the *Donovan* Court discussed a second line of inquiry in terms of estimating ERISA damages. The court further explained that in cases where liability was based on stock prices being "manipulated by the defendants or [a claim that] information that would affect the market price was improperly withheld" then "it well may be that the best measure of damages is one that awards the plaintiff the difference between what as paid for the stock, and what would have been paid had the plaintiff been aware of the concealed information, or had the market price not been manipulated." The latter method of calculating ERISA damages, however, was found by the *Donovan* Court to be inapplicable as the "case at bar [ ] does not involve fraud, or the withholding of information, or the manipulation of prices."[12] As was emphasized above, claims of "imprudence" are

---

12 For a recent case drawing this distinction see *Taylor v. Keycorp* (Northern District of Ohio) (2010) (emphasizing for damages purposes that the gravamen of the ERISA complaint was a disclosure claim).

commonly based, at least in substantial part, on allegations of inadequate disclosures.

We will first discuss the first line of inquiry suggested by the *Donovan* court – calculating ERISA damages based on measuring what the 401(k) plan "would have earned" but for the imprudent investment option being offered in the first place – and will then turn to the second *Donovan* line of inquiry – calculating ERISA damages where the basis for ERISA liability is grounded in allegations of inadequate disclosures.

Measuring what the plan "would have earned" but for the imprudent investment
Focusing on the first line of inquiry suggested by the *Donovan* Court, there are at least three potential methods that can be used as a basis for determining what the plan "would have earned" but for the imprudent investment. One approach is to assume that the funds placed in the imprudent investment, which in the ABC case would be the funds placed by plan participants in the ABC Company Stock Fund, would have been placed – but for the imprudent investment option having been offered – in the "best-performing fund" that was available as an investment option during the class period. A second approach is to assume that the funds placed in the imprudent investment would have been placed in the investment option that is the "most similar" to the imprudent investment. A third approach is to assume that the imprudently invested funds would have been invested by a plan participant in the same proportion across the rest of the participant's plan investments excluding the imprudent investment option (portfolio redistribution).

In order to explore these three possibilities in more detail, we will return to the ABC litigation matter. Table 3 lists the cumulative returns during the class period of the ABC Company Stock Fund as well as the next ten largest funds, as measured by plan participants' holdings, offered as investment options during the class period. These cumulative returns are derived from individual monthly participant data. They are based on the median of the monthly returns for all participants that had an outstanding balance in a particular fund but no activity (buying or selling shares of the fund) in that month. We then verified these calculations, where possible, with return data from Bloomberg.
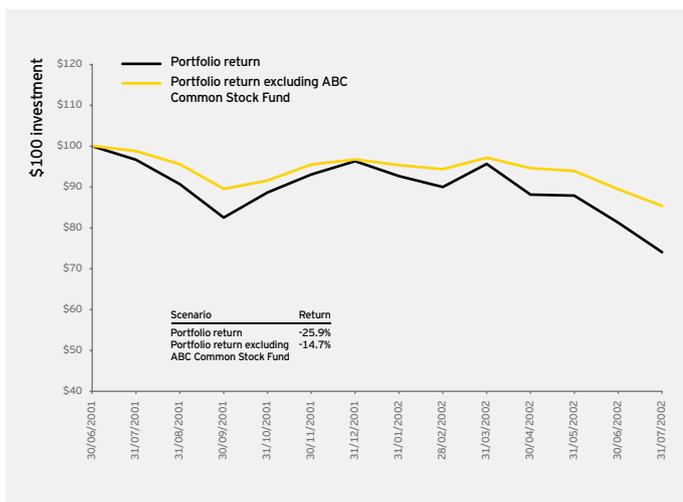
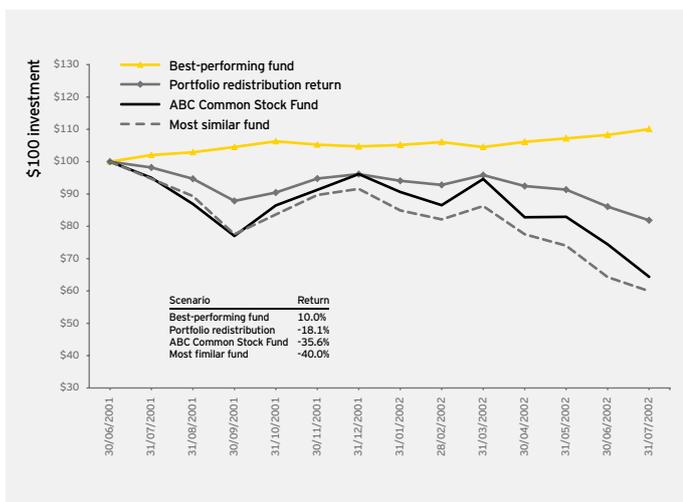**Figure 1: Aggregate portfolio return with and without ABC Common Stock Fund (July 2001–July 2002)**

Figure 2: Results of $100 investment in ABC Common Stock Fund and alternative "but-for" investment scenarios used in ERISA style damage calculations (July 2001–July 2002)

As Table 3 documents, the ABC Company Stock Fund has a -35.6% return during the class period with the Aggressive Growth Fund, with a -40.0% return, and the Emerging Growth Fund, with a -36.4% return, suffering roughly similar declines. The best-performing fund during the class period is the Fixed Income

Securities Fund, which had a 10% return. The fund with the highest correlation of returns with the ABC Company Stock Fund during the class period is that of the Aggressive Growth Fund, at 0.92.

Figure 1 provides information on the aggregate value of the 401(k) plan both with and without plan participants' holdings in the ABC Common Stock Fund. The actual portfolio return was -25.9% and is -14.7% when excluding the performance of the ABC Common Stock Fund. Plan losses during the class period are therefore not solely a function of investments in the ABC Common Stock Fund, although holdings in that fund did make the losses steeper.

Figure 2 graphs the value of a $100 investment as of the start of the class period in the "most similar fund", i.e., the Aggressive Growth Fund if one uses class period return correlations, the "best-performing fund", i.e., the Fixed Income Securities Fund with its positive 10% return, and "portfolio redistribution." The value of the $100 investment is very different depending on which of these three alternatives is used. The "most similar fund" generates a class period return of -40.0%, the "best-performing fund" a positive return of 10%, and the weighted average plan participant "portfolio redistribution" a return of -18.1%. We wish to emphasize that in calculating "portfolio redistribution" we calculated for each individual plan participation their "portfolio redistribution" and then aggregated these individual "portfolio redistributions," as presented in Figure 2.

These three different bases for estimating what each plan participant "would have earned" on their funds if they had not been invested in the ABC Common Stock Fund generates three very different aggregate damage estimates. Under the "most similar fund" approach, each plan participant's ABC Common Stock Fund investments earns the return of the Aggressive Growth Fund. Under the "best-performing fund," each plan participant's ABC Common Stock Fund investments earns the returns of the Fixed Income Securities Fund. Finally, each plan participant earns their individually calculated "portfolio redistribution" return on their ABC Common Stock Fund investments. In calculating what each participant "would have earned" we assume that participants would have chosen to withdraw the same dollar value in this hypothetical "but for" world as they do in the actual world and would choose to exit their plan investments at the same point in time under both scenarios.

Aggregate damages are then simply the sum of each individual plan participant's damages so calculated. We will present later in the paper the actual figures, in terms of the median and average plan participant's individual damages and, perhaps of most import, the aggregate damage figures utilizing each one of these three approaches. Needless to say, the damage estimates vary dramatically.

Before one can assess the meaning of these three different bases and the returns presented in Figure 2, however, it is first necessary to discuss the basis for selecting the "most similar" and the "best-performing" funds and how the "portfolio redistribution" calculation is actually done. As for the "most similar fund", the Aggressive Growth Fund, as was already mentioned, had the highest class period correlation of returns with the ABC Common Stock Fund. Correlation of returns was utilized as the metric for measuring "similarity," as this captures information on whether two funds share similar risk and performance characteristics, characteristics that are presumably important to investors. However, calculating correlation of returns based on the class period returns, as we have done, entails the use of *ex-post* information, i.e., information that plan participants would not have had at the beginning of the class period. The preferable approach would be to measure fund correlations in the period immediately prior to the beginning of the class period, such as data covering the July 1998 − July 2001 time period, information that would have been available to plan participants both in the actual world and the hypothetical world in which the imprudent investment, the ABC Common Stock Fund, was not offered during the class period. We were unable to do so in the ABC matter, however, as a result of data limitations.

On a similar note, the Fixed Income Securities Fund, which has been designated the "best-performing fund," was also selected based on class period data and hence also has the disadvantage of utilizing ex-post information. The preferable approach for selecting the "best-performing fund" would be to base the selection solely on information available as of the beginning of the class period. In other words, selecting the "best-performing fund" by comparing fund returns in the period immediately prior to the beginning of the class period. Again, in the ABC matter this was not possible as a result of data limitations.

As for the "portfolio redistribution" results presented in Figure 2, this is based on reallocating for each plan participant any holdings in the ABC Common Stock Fund proportionally across other plan investment options already utilized by that plan participant. So, for instance, if a plan participant had 20% of their ABC 401(k) holdings as of July 2001 in the ABC Common Stock Fund, 40% in the Fixed Income Securities Fund and 40% in the Aggressive Growth Fund, "portfolio redistribution" would entail reallocating the 20% to the other two funds: half would be allocated to the Fixed Income Securities Fund and the other half to the Aggressive Growth Fund. The plan participant then is assumed to receive whatever the return would be on this position. For plan participants solely invested in the ABC Common Stock Fund, we reallocate the ABC Common Stock Fund investments to the "most similar fund", i.e., the Aggressive Growth Fund.

Of these three possibilities, the "most similar fund" approach is the most convincing representation of the "but for" world, the world that would have been obtained "but for" the imprudent investment option being offered. This judgment is based on the fundamental, long-established, and well-known point from finance theory that selecting a security or an investment fund can be conceptualized as selecting in effect a future payoff stream with a certain risk/return profile. Greater non-diversifiable risk implies higher expected returns. An investor who chooses a particular fund has exhibited a revealed preference for a certain risk/return profile. Indeed, whether the investor in fact realizes it or not, they have in fact assumed an investment with a certain risk/return profile. It is, therefore, natural to posit that in the "but for" world the investor would have allocated those funds to the available plan investment option with a similar risk/return profile. It is far more difficult to motivate the assumption, on the other hand, that plan participants − if they had been unable to invest in the ABC Common Stock Fund − would have switched all their ABC Common Stock Fund investments (which after all represented over half of the aggregate value of the 401(k) plan as of July 2001) to a fixed income fund, which is the assumption underlying the "best-performing fund" approach.

However, the calculations under different assumptions of what the plan "would have earned" does not answer the question as to whether the right framework is to ask what would have happened if the imprudent investment option had not been offered. Under the second *Donovan* line of inquiry, if the basis for ERISA

liability is inadequate disclosures, such as the dissemination of misinformation or concealment of material information that distorts the value of company stock held in an ERISA plan, the damage analysis called for becomes fundamentally different.

Measuring losses caused by inadequate disclosures
Harm caused to investors as a result of inadequate disclosures is the type of damage analysis routinely addressed in the Rule 10b-5 context. This analysis addresses whether a security's price was distorted (or equivalently "inflated") by the inadequate disclosures, and by how much, and whether particular types of investors in fact suffered losses as a result of any distorted prices. Indeed, in addition to allegations of inadequate disclosures, it is quite common for ERISA complaints to explicitly allege "artificially inflated" and "distorted" stock prices in presenting the case for ERISA liability.

We will not reproduce our discussion presented elsewhere of how to calculate Rule 10-5 damages.[13] Suffice to say for present purposes, measurement of stock price inflation resulting from inadequate disclosures is often done via a regression analysis measuring the market's reaction to a disclosure correcting the disclosure inadequacies (a so-called "corrective disclosure"). It is also common to then use the dollar value of any such market reaction to estimate the "inflation" in the stock price during the class period and, therefore, the losses suffered by investors who purchased at the inflated price and held through the corrective disclosure.

We will do so here. While not endorsing the constant dollar inflation approach as necessarily the most accurate Rule 10b-5 method, we will present such calculations in order to provide a baseline Rule 10b-5 damages calculation. Table 4 presents the market model that will be used in measuring the market's reaction to the corrective disclosures plaintiffs alleged occurred on 22 July 2002 and 23 July 2002 in the ABC matter. The market model is estimated based on ABC log daily return data over the 31 July 2001–21 July 2002 (the period immediately prior to the 22 July 2002 corrective disclosure) period using the S&P 500 and an industry index as explanatory variables. The industry index, it should be noted, does include ABC stock

13 See Ferrell, A., and A. Saha, 2011, "Forward-casting 10b-5 damages: a comparison to other methods," 37 *Journal of Corporation Law* 36.

Regression statistics	
R-squared	0.8285
Number of observations	242
Coefficient of explanatory variables	
Intercept	0.0002
	(0.34)
S&P 500 index	0.3266
	(2.89)
Industry index	1.0183
	(9.94)

Table 4: Results of event study analysis for ABC company stock (31 July 2001–21 July 2002)
Source: Bloomberg LP.
Notes: "*t*" statistics are in parentheses under coefficient.

Event	Date	Adjusted percent change	Adjusted dollar change
Disclosure 1	22 July 2002	**-6.86%**	
		(t = - 6.52)	**-$2.22**
Disclosure 2	22 July 2002	**-10.63%**	
		(t = - 9.78)	
			-$3.01
Total			**-$5.23**

Table 5: Estimation of market-adjusted changes in ABC common stock on disclosure days of 22 July 2002 and 23 July 2002
Source: Bloomberg LP.
Notes: Market-adjusted change is the residual return from the regression of the company stock returns on the S&P 500 Index and an industry index over the estimation period of 31 July 2001 – 23 July 2002.
"*t*" represents the t-statistic. Statistically significant changes are in bold.

but it constitutes only 5% of the index. As can be seen from the t-statistics reported in Table 4, both explanatory variables are statistically significant at the 1% level.

As Table 5 documents, both the 22 July and 23 July 2002 corrective disclosures are associated with statistically significant negative residual stock price reactions (stock price reactions that cannot be attributed to contemporaneous S&P 500 and industry index movements) with a total negative residual dollar change of U.S.$5.23 (a drop of U.S.$2.22 on 22 July 2002 and U.S.$3.01 on 23 July 2002).

Inflation in the stock price as a result of the alleged disclosure inadequacies that create ERISA liability, utilizing the constant dollar method, is simply a constant U.S.$5.23 over the class period, except for 22 July 2002 when the inflation drops to U.S.$3.01. Figure 3 graphs the constant dollar inflation over the
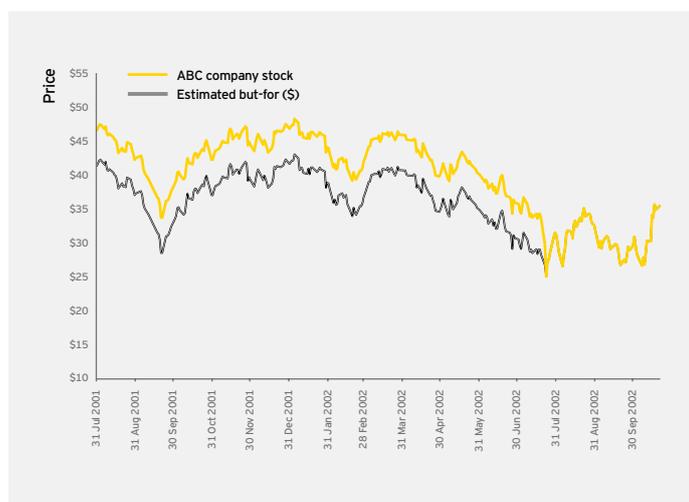
Figure 3: Actual and estimated prices for ABC company stock alleged class period: (31 July 2001–23 July 2002)

class period. It is worth noting that under a constant percentage inflation method (inflation remains a constant percentage of the stock price), the inflation estimates remain fairly close to that produced by constant dollar.

It is worth noting that plan participants only suffered damages under this approach if they purchased ABC common stock during the class period, the period during which the inadequate disclosures were allegedly inflating the stock price, and held onto those shares through at least the first corrective disclosure on July 22, 2002. Plan participants who merely held ABC common stock at one point in the class period would not necessarily have been harmed by the inadequate disclosures. Purchasing and selling at an inflated price does not necessarily result in damages.

To estimate aggregate damages, we first estimate each plan participant's individual damages based on whether they purchased at an inflated ABC stock price and suffered losses as a result of a corrective disclosure removing the inflation in the stock price.[14] We then aggregate the individual damages to arrive at an aggregate damage figure.

---

14 To determine the sale date of a particular share purchase, and therefore whether it occurred prior or after 22 July 2002, we assumed first in, first out (FIFO).

The bottom line: the damage estimates

We have presented four different damage approaches, three for measuring what the plan participants "would have earned" but for the offering of an imprudent investment (the first Donovan line of inquiry) and one addressing the harm resulting from inadequate disclosures (the second Donovan line of inquiry). Whether the former or latter set of calculations is the appropriate way to frame the damages issue will turn on the gravamen of the ERISA liability theory.

The differences can, and often are, enormous in terms of estimated aggregate ERISA damages. Table 6 presents the resulting ERISA damages, both in terms of the average and median individual plan participant's damages. Aggregate damages for the class are also presented. Taking the largest and smallest estimates of aggregate damages, the "best-performing fund" approach generates aggregate damages of U.S.$2.15 billion while the "most similar fund" approach generates damages of not even U.S.$3 million. The Rule 10b-5 style approach results in damages of approximately U.S.$84 million with the "portfolio redistribution" calculation resulting in the second highest level of damages at approximately U.S.$785 million. Simply put, the stakes in ERISA litigation are vastly different, at least in this matter, if one uses a "most similar fund" or 10b-5 style damages approach versus a "best-performing fund" or even a "portfolio redistribution" approach.

It is interesting to note that damages using the "most similar" approach is still positive, albeit very modestly so, despite the fact that the "most similar fund", the Aggressive Growth Fund, underperformed the ABC Company Stock Fund over the class period (-40% versus −35.6%). There are sub-periods, however, when the Aggressive Growth Fund outperforms the ABC Company Stock Fund (such as July–September 2001). Damages using the "most similar fund" approach can, therefore, occur as a result of participants depositing and withdrawing funds from the ABC Company Stock Fund during these times. Approximately 11% of class members suffered damages as a result of such activity, albeit with median damages of only U.S.$7.

Conclusion

ERISA lawsuits are common occurrences which form an important component of overall securities litigation activity. Despite their importance, how to calculate damages based on a

Scenario	Aggregate damage value	Participants damaged		Average damage(U.S.$)	Median damage (U.S. $)
		Number	Percent		
Best performing[1]	U.S.$2,152 million	127,995	99.0%	U.S.$16,817	U.S.$3,391
Portfolio redistribution [2]	U.S.$785 million	98,805	76.5%	U.S.$7,942	U.S.$1,369
Most similar[3]	U.S.$3 million	13,699	10.6%	U.S.$209	U.S.$7
10b(5) style calculation[4]	U.S.$84 million	117,292	90.8%	U.S.$719	U.S.$147

Table 6: Alleged damages for participants invested in ABC Company Stock Fund (July 2001–July 2002)
Notes:
[1] The Fixed Income Fund was the best-performing fund with 10% return from July 2001 through July 2002.
[2] The dollars investment in ABC Company Stock Fund are redistributed proportionately across participant's other chosen portfolio allocations. Participants 100% invested in the ABC Company Stock Fund were redistributed to the Aggressive Growth Fund (the most similar fund).
[3] The Aggressive Growth Fund performed most similar to the company stock fund.
[4] The 10b5-style calculations assumes the stock price was artificially inflated by U.S.$5.23.

claim of ERISA liability has been an issue left unaddressed by the literature. Filling this gap, this paper presents and discusses the "best-performing fund," "portfolio redistribution," "most similar fund" and "10b-5 style" ERISA damage methodologies. Moreover, the paper discusses how these methodologies are implemented in practice using the facts and data from an actual ERISA matter. The choice among these competing methodologies can be quite important. In the ERISA matter we analyze, for instance, aggregate damages can range from less than U.S.$3 million to well over U.S.$2 billion.

When the gravamen of the ERISA liability claim is based on an inadequate disclosure theory, "10b-5 style" damages will often be, we argue, the most appropriate damage methodology. On the other hand, if the gravamen of the ERISA liability claim is one based on an allegation that the plan fiduciaries knew or should have known that the company stock was an "imprudent" investment, the "most similar fund" methodology could potentially serve as an appropriate damage methodology given that this approach is based on the revealed preference of the plan participants.

EY | Assurance | Tax | Transactions | Advisory

About EY
EY is a global leader in assurance, tax, transaction and advisory services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over. We develop outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, we play a critical role in building a better working world for our people, for our clients and for our communities.

EY refers to the global organization and may refer to one or more of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. For more information about our organization, please visit ey.com.

EYG No. FP0006

In line with EY's commitment to minimize its impact on the environment, this document has been printed on paper with a high recycled content.

This material has been prepared for general informational purposes only and is not intended to be relied upon as accounting, tax, or other professional advice. Please refer to your advisors for specific advice.

ey.com

The articles, information and reports (the articles) contained within *The Journal* are generic and represent the views and opinions of their authors. The articles produced by authors external to EY do not necessarily represent the views or opinions of EYGM Limited nor any other member of the global EY organization. The articles produced by EY contain general commentary and do not contain tailored specific advice and should not be regarded as comprehensive or sufficient for making decisions, nor should be used in place of professional advice. Accordingly, neither EYGM Limited nor any other member of the global EY organization accepts responsibility for loss arising from any action taken or not taken by those receiving *The Journal*.

Accredited by the American Economic Association

ISSN 2049-8640