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 18 TOMORROWNOW, INC.

19 UNITED STATES DISTRICT COURT

20 NORTHERN DISTRICT OF CALIFORNIA

21 OAKLAND DIVISION

22 ORACLE USA, INC., et al.,  
 Plaintiffs,  
 23  
 v.  
 24 SAP AG, et al.,  
 25 Defendants.  
 26

Case No. 07-CV-1658 PJH (EDL)  
**DECLARATION OF STEPHEN K.  
 CLARKE IN SUPPORT OF  
 DEFENDANTS' OPPOSITION TO  
 PLAINTIFFS' MOTION NO. 1 TO  
 EXCLUDE EXPERT TESTIMONY OF  
 STEPHEN K. CLARKE**

Date: September 30, 2010  
 Time: 2:30 p.m.  
 Courtroom: 3, 3rd Floor  
 Judge: Hon. Phyllis J. Hamilton

**FILED PURSUANT TO D.I. 915**

CLARKE DECL. ISO DEFS.' OPP. TO PLFFS.'  
 MOT. TO EXCLUDE CLARKE  
 Case No. 07-CV-1658 PJH(EDL)

1 I, Stephen K. Clarke, declare as follows:

2 1. I have personal knowledge of the matters discussed herein.

3 **A. Background and Qualifications.**

4 2. I am a Certified Public Accountant (Accredited in Business Valuation) in the State  
5 of Arizona; a Certified Fraud Examiner; and a Chartered Accountant in England & Wales. A  
6 copy of my resume is attached as Exhibit 1. I have been engaged as a testifying economic  
7 damages expert in dozens of intellectual property disputes over the last 22 years. Such disputes  
8 have related to copyrights, patents, trade secrets, trade dress and unfair competition, and have  
9 involved aggregate claims well in excess of \$100 billion (prior to this matter). I have provided  
10 testimony as an economic expert in many venues including Federal and State Courts, arbitration  
11 panels, and bankruptcy hearings in the United States, and the Crown Courts in Great Britain. I  
12 have valued over \$20 billion worth of businesses in the same 20 year period. My degree is in  
13 Management Sciences from the University of Manchester in England. I taught economics at  
14 Arizona State University for several years.

15 3. In December 2007, I was retained by Defendants to address Plaintiffs' alleged  
16 damages. I have been working on this case since then.

17 **B. Georgia-Pacific Analysis.**

18 4. I devoted 144 pages (nearly 50%) of my 294 page report to a detailed rebuttal of  
19 Plaintiffs' expert Paul K. Meyer's *Georgia-Pacific* opinion and an analysis of each of the 15  
20 *Georgia-Pacific* factors. On the other hand Meyer spent only 76 pages of his 281 page report  
21 addressing the *Georgia-Pacific* factors. I analyzed several critical factors that Meyer failed to  
22 consider, including Plaintiffs' prior licensing agreements with other support vendors and partners  
23 and Plaintiffs' established relationships with other third-party support vendors who are still  
24 partners and offer similar services to TomorrowNow ("TN"). My report addresses the *Georgia-*  
25 *Pacific* factors in detail and the analysis considers all of the relevant facts in deriving the royalty  
26 rate.

27 5. TN's standard pricing structure was based on 50% of Plaintiffs' price. TN  
28 established its 50% pricing structure by about mid-2004 and, for the most part, continued that

1 pricing structure through the wind down of its operations in October 2008. TN made a few  
2 exceptions to its standard 50% pricing structure. Of its 358 customers, TN provided its services  
3 at no charge to less than 4% of its total customers.

4 **C. Economic Causation Analysis.**

5 6. The Litigation Services Handbook<sup>1</sup> provides an overview of the first steps that an  
6 expert witness takes to calculate lost profits:

7 The first step in a damages study translates the legal theory of the harmful event  
8 into an analysis of the economic impact of that event. In most cases, the analysis  
9 considers the difference between the plaintiff's economic position if the harmful  
10 event had not occurred and the plaintiff's actual economic position. The damages  
11 study restates the plaintiff's position 'but for' the harmful event; this step is often  
12 called the but-for analysis. Damages, then, are the difference between the but-for  
13 value and the actual value.

14 I have attached a copy of the relevant excerpt as Exhibit 2.<sup>2</sup> I consider economic causation in  
15 every case because I am attempting to identify the damages that arose as a result of the alleged  
16 acts. Failure to consider causation results in an inappropriate analysis. Properly applied, a study  
17 of economic causation allows the economist to trace the effects of the damage causing acts  
18 through to the damages opinion, separating their effects from other factors that may have affected  
19 a firm's operations but are unrelated to the damage causing acts. The methodology by which  
20 economic causation is applied is dependent on the facts and circumstances of each case and is  
21 therefore fact intensive.

22 7. In this case, my causation analysis involved 358 customers and had to be done one  
23 customer at a time. The analysis involved reviewing over ten million pages of documents for  
24 causation related information. The only practical way to organize and categorize such a vast  
25 volume of documents is in a database that tracks the reasons each customer terminated its  
26 support with Plaintiffs and/or made purchases from SAP.

27 8. Because of the similarity of characteristics among different customers, I grouped  
28 customers exhibiting similar characteristics, using the term "pools" to describe the grouped

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29 <sup>1</sup> Weil, Roman L., et al. *Litigation Services Handbook: The Role of the Financial Expert*,  
30 3rd Ed., John Wiley & Sons, Inc. (2001), at 5.4.

31 <sup>2</sup> For the Court's convenience, I have identified the portions of certain exhibits that I refer  
32 to herein with red boxes outlining the relevant material.

1 customers for ease of reference. However, the nomenclature is immaterial: the pools could have  
2 been given one of many other names, such as groups or classes. It would be impractical at trial  
3 for the jury to consider all the relevant evidence for each customer individually. An orderly  
4 presentation of pools of customers exhibiting similar characteristics is more efficient and at least  
5 possible within the trial schedule.

6 9. As a damages expert, I routinely analyze economic causation in a wide variety of  
7 industries. For example, I have applied my expertise to the high-tech, aerospace, entertainment,  
8 gaming, and real estate industries, and done so in claims ranging from intellectual property  
9 infringement and contract disputes to fraud analyses and bankruptcies. In each case, I examined  
10 the documents produced, performed appropriate analysis and research, and consulted with  
11 industry experts where appropriate to generate an understanding of the relevant market in which  
12 the parties operate.

13 **D. Analysis of Third Party Support Market.**

14 10. I routinely assess industry markets and competition in the course of my valuation  
15 analyses. I am a Certified Public Accountant, Accredited in Business Valuation, and have 38  
16 years of experience valuing a wide range of businesses. I am required under the AICPA's  
17 Statement on Standards for Valuation Services No. 1 to obtain non-financial information,  
18 including information on the economic environment, geographical markets, industry markets,  
19 and competition, sufficient to understand the subject entity.

20 11. I have performed approximately 2,000 valuation analyses during my 35 year  
21 career in accounting and economics, and have managed at least 200 valuations in numerous  
22 industries in the course of my expert work. During the past 22 years as a litigation consultant, I  
23 have also performed hundreds of lost profits damages calculations for all manner of businesses,  
24 and have analyzed their competitors' information in numerous cases.

25 12. In this case, I relied on numerous sources of information, including: company  
26 websites; industry articles; analyst reports, including Gartner and Forrester; documents produced  
27 by Plaintiffs, Defendants, and customers that describe the offerings of third party support  
28 providers; the TN Wind-Down Report, which tracked where customers went for support after TN

1 ceased operations; and Plaintiffs' At-Risk Reports, which tracked losses to third party support  
2 providers beginning at least as of January 2005 and continuing at least through the beginning of  
3 2008.

4 **E. Regression Analysis.**

5 *Training and expertise.*

6 13. I did my first study of regression analysis at Manchester University in England as  
7 part of my Bachelor's degree, between 1969 and 1972. The classes were part of a number of  
8 mathematics courses which included study of business statistics and other analytical tools. I  
9 continued my education on use of the technique at London School of Accountancy where I  
10 studied numerous modeling techniques (including regression analysis) in a class called "Elements  
11 of Financial Decisions," which was 25% of my final examination to become a Chartered  
12 Accountant in England and Wales. The examination is one of the most demanding of any  
13 professional qualification. Regression analysis was a significant part of the curriculum for  
14 Economics 502, which was the class I taught at Arizona State University.

15 14. Since I became a Chartered Accountant, and later a CPA, I have run hundreds of  
16 regressions for the purposes of my work, usually in order to quantify variable expenses in the  
17 course of computing lost profits. In addition, I also created a multi-variate hedonic regression  
18 analysis designed to quantify the effect that the creation of a 36,000 acre park in Scottsdale,  
19 Arizona had on the value of surrounding property. The regression analysis considered numerous  
20 factors that may have played a role in changing the value of the land in the neighborhood of the  
21 park. The regression incorporated several dummy variables (very similar to what Oracle's  
22 statistics expert Dr. Levy calls fixed effects) for events such as a new freeway, and included  
23 approximately a dozen other variables including lot size, building density, a variety of amenities,  
24 and locational effects, such as distance of the property from the park. I presented the regression  
25 analysis in court and the jury agreed with my conclusion after vigorous cross examination. I also  
26 ran a regression analysis related to the effect that the introduction of a new piece of software had  
27 on the sales revenues of a major software development company. I taught graduate level  
28 Managerial Economics at Arizona State University for three years. Managerial Economics is a

1 branch of economics that applies microeconomic analysis to decision models of management.  
2 This includes operations research, risk analysis, production analysis, pricing analysis, and capital  
3 budgeting. Finally, although I did not do any forecasting as part of my analysis in this matter, I  
4 have applied regression techniques designed to determine the effect on sales or costs of various  
5 events, such as a change in selling price or a change in the competitive environment.

6 15. My report in this case includes a single variable regression analysis (otherwise  
7 known as simple regression) that I have used many times throughout my career, in both the  
8 business and litigation context. Plaintiffs' main complaint appears to be that the Court should  
9 exclude my regression analysis simply because I first studied the technique a long time ago.  
10 However, the technique has not changed since I first studied it.

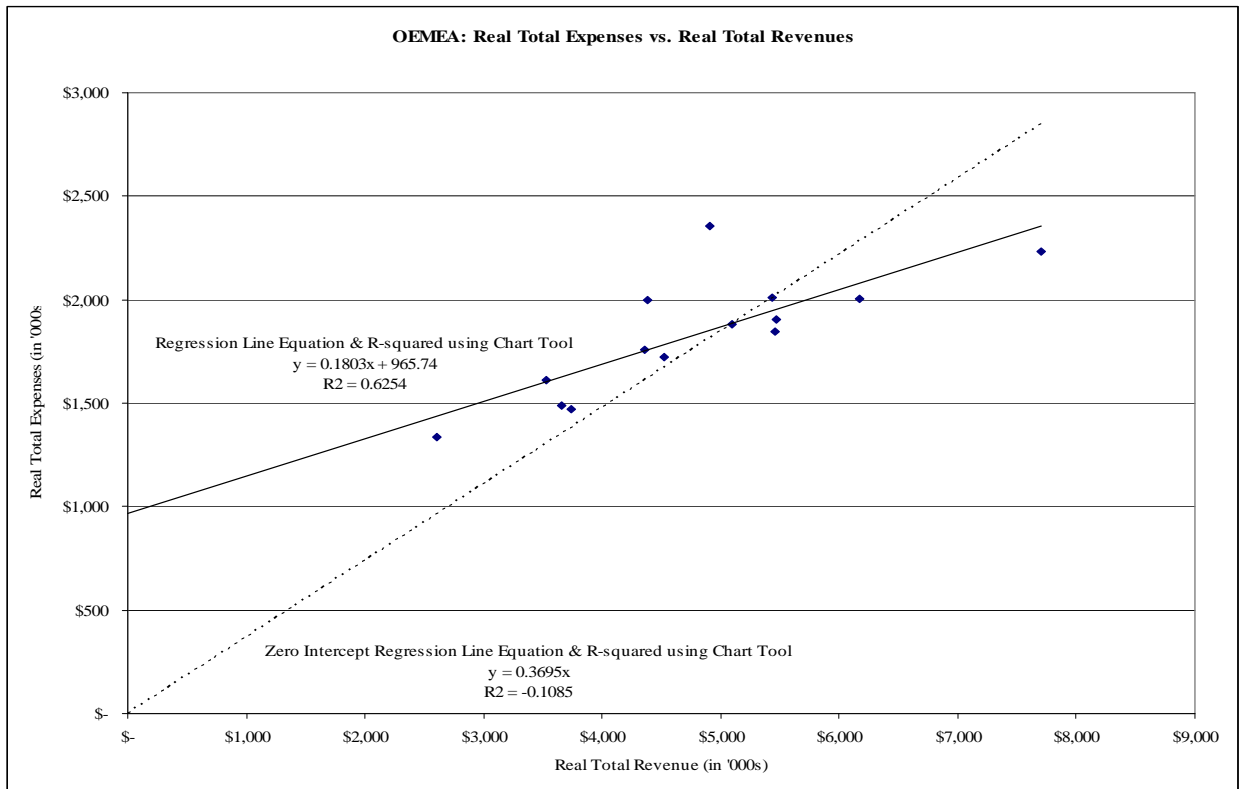
11 16. Support for my position is provided by *The Litigation Services Handbook*,  
12 published by Wiley & Sons (3<sup>rd</sup> edition), a recent text intended to assist accounting professionals  
13 in the context of litigation. Exhibit 2. The book offers extensive guidance on how accountants  
14 might compute variable costs and suggests a regression analysis as one way to do so. *See* pages  
15 at 7-11 to 7-25. As Levy admits in his declaration at 5:1 and 8:2-5, my equation estimates the  
16 change in cost due to a change in revenue. This is the precise definition of variable cost and is the  
17 exact reason I did the analysis. I have attached several descriptions of the variable cost curve as it  
18 appears in economic textbooks in Exhibits 7 to 13.

19 ***Levy's criticisms of my use of  $R^2$ .***

20 17. Levy presents various charts and regression lines comparing what he calls " $R^2$   
21 Clarke" to an alternative  $R^2$  for my zero intercept regressions. However, it appears Levy used the  
22 Chart Tool within Excel to calculate his  $R^2$  for zero intercept regression lines. To verify that Levy  
23 used Chart Tool, I re-computed  $R^2$  for my data using the Chart Tool function. As Figure 1 below  
24 shows, the calculated  $R^2$  using the Chart Tool results in the exact same output Levy quotes in his  
25 declaration criticizing my analysis. *See*, for example, page 9, Figure 2. Therefore, I conclude  
26 Levy used Chart Tool to do his work.

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Figure 1



18. However, the Chart Tool produces incorrect outputs under certain conditions, and those conditions include those applicable to my analysis. According to Microsoft, the publisher of the Excel program, Chart Tool is *always* incorrect<sup>3</sup> and should not be used to compute  $R^2$  for a regression with a zero intercept.

19. I used the Excel Analysis Toolpak (ATP) to calculate my  $R^2$  which returns the correct  $R^2$  for a zero intercept regression. If Levy had computed  $R^2$  using the ATP he would have derived the same results as I. I verified the accuracy of my work by re-running the analysis using another statistical package called STATA, and  $R^2$  was identical.

***Levy's criticisms of goodness of fit.***

20. Levy implies that  $R^2$  is not important in determining the strength of a regression equation. The reality is different. There are numerous authoritative sources that describe  $R^2$  as a measure of goodness of fit. The Litigation Services Handbook (Exhibit 2) states at page 7-18 that

<sup>3</sup> I have included a printout of the Microsoft Support website as Exhibit 3.

1 an  $R^2$  equal to 1 means the equation “explains the variation in the dependent variable perfectly...”  
2 and that a high value for  $R^2$  means the equation “...explains a large portion of the variation in the  
3 dependent variable.” In addition, Parsons and Schultz, *Marketing Models and Economic*  
4 *Research*, states that the most common decision rule for choosing among alternative linear  
5 models generally is to select the model with the largest Corrected R-squared.<sup>4</sup> Moreover,  
6 numerous other practitioners including Pappas & Brigham, *Managerial Economics* (3d Ed.)  
7 (Exhibit 5), and Hirschey, *Managerial Economics* (3d Ed.) suggest that when choosing between  
8 alternative equations, strength of relationship is best.<sup>5</sup>

9 ***Levy’s criticisms of zero intercept model.***

10 21. As Levy admits in his Declaration, my equation estimates the change in cost due to  
11 a change in revenue. See page 5, line 1 and page 8, lines 2 to 5. This is the precise definition of  
12 variable cost and is the exact purpose of my analysis. Levy goes on to suggest that use of a zero  
13 intercept is not appropriate for estimating variable costs and states that my “analyses do not  
14 conform to generally accepted scientific methods used to measure how costs change as revenue  
15 change (*sic*)”. See page 2, lines 6 to 7. However, a thorough knowledge of accounting is  
16 required to distinguish variable costs from fixed costs. Levy’s lack of understanding of basic  
17 accounting causes him to make fundamental errors. Levy seems to believe that I needed to  
18 quantify *incremental* costs and much of his criticism assumed my objective should have been to  
19 estimate incremental costs. However, my model is designed to estimate the *variable* costs, which  
20 are not the same as incremental costs, and which may be vastly different. My model achieves that  
21 purpose.

22 22. Fixed, Variable, and Total Cost curves (which are often straight lines in spite of  
23 being called ‘curves’) show the relationship between the revenues a company generates and the  
24 types of costs incurred to generate those revenues. Certain of the costs a company incurs are

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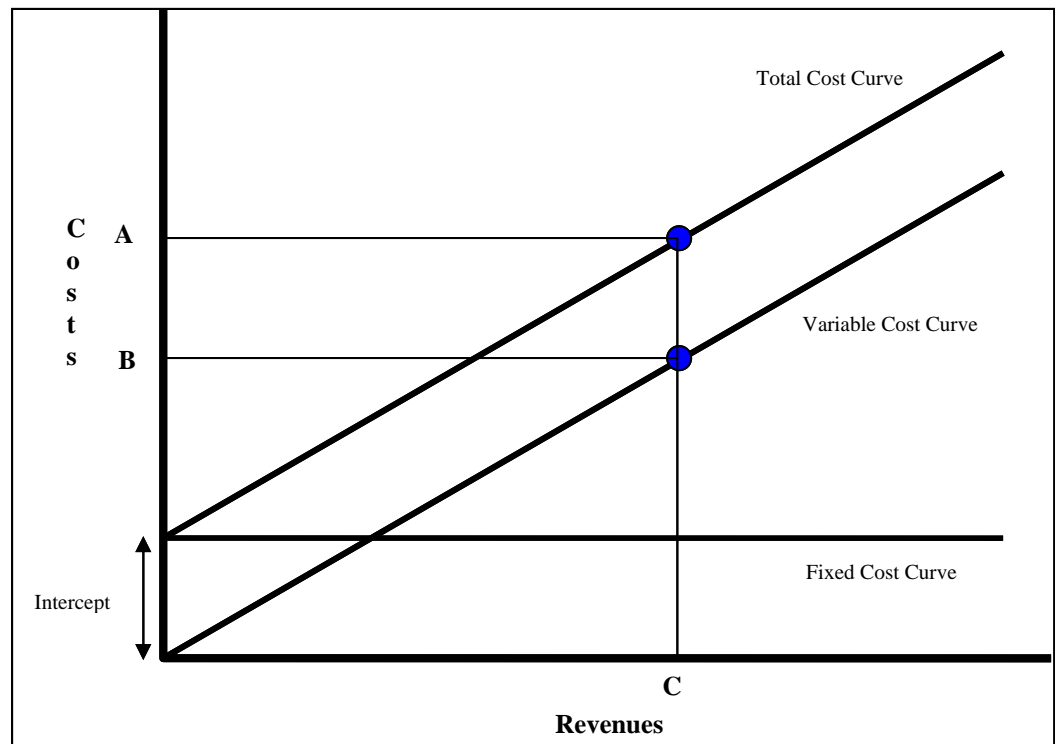
25 <sup>4</sup> The Corrected R-squared, also known as Adjusted R-squared, takes into account the  
26 number of variables and sample size (both of which affect a model’s statistical significance).  
27 Although I used R-squared in my analysis, I computed Corrected R-squared and gave that result  
28 in my analytical output and found there was little difference between Corrected R-squared and R-  
squared in my models.

<sup>5</sup> I have included relevant excerpts from these texts as Exhibits 4-6, respectively.



1 fixed over a given range of activity (for example, factory rent and annual insurance), while other  
2 costs vary with the level of sales (for example, selling commissions and direct manufacturing  
3 costs). As I illustrate in the graph below, the fixed cost curve (plotted against revenues) is a  
4 straight horizontal line parallel to the revenue axis that intersects the cost axis at a point equal to  
5 the company's fixed costs. The variable cost curve will begin at the origin of the graph because,  
6 by definition, if there are no revenues there are no variable costs. The origin is where the two  
7 axes (X and Y) meet. The variable cost curve will slope upwards to the right (see graph below).  
8 By adding the variable cost curve to the fixed cost curve, we derive the total cost curve (see graph  
9 below). The following picture illustrates what I am describing:

10 **Figure 2**



23. It is critical to understand that the total cost curve is exactly parallel to the variable  
24 cost curve over a given range of activity. As the graph shows, the total cost curve tracks the  
25 variable cost curve but is shifted higher on the graph. It is a mathematical fact that the slope of the  
26 total cost curve gives the increase in variable cost as a function of revenue. In my analysis, I

1 establish the slope of the variable cost curve according to basic economic principles. My  
2 equation matches the variable cost curves illustrated in multiple economic texts<sup>6</sup>

3 24. Oracle provided only quarterly accounting data for the relevant period. So I used  
4 the provided quarterly data to do my regression of costs against revenues. All I needed as an  
5 output from the regression equation was the slope of the equation at Average Revenue.<sup>7</sup> I applied  
6 the slope to the Average Revenue (Point C in the graph) to derive the variable cost at Average  
7 Revenue (Point B in the graph). I used the slope of the cost curve at Average Revenue to derive  
8 the fixed and variable cost *ratios*. Because the slope of the total cost curve and the slope of the  
9 variable cost curve are identical (which is mathematically inarguable) and the slope is derived  
10 from the regression equation, it follows that my variable cost analysis is correct.

11 25. Mathematically the intercept value represents the value of Y (in this case, total  
12 costs) when X (in this case, revenue) is zero. Levy repeatedly insists that the intercept value of  
13 the regression equation represents the firm's fixed cost. He is mistaken. Levy presents a number  
14 of examples in an effort to show that the calculated intercept value in his alternative model  
15 specifications represents fixed cost. Statistics textbooks, including those Levy references in his  
16 Declaration, indicate that in most cases the intercept value in a regression equation is nothing  
17 more than a mathematical anchor and has no practical meaning unless there are a sufficient  
18 number of independent variable observations near zero.<sup>8</sup> Additionally, Damodar Gujarti cites in  
19 his book *Basic Econometrics* "cost analysis theory" as an instance in which "regression through  
20

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21 <sup>6</sup> I have included relevant excerpts from various economic text books (Stiglitz and Walsh,  
22 *Principles of Microeconomics* at 136-137; Colander, *Microeconomics* (4<sup>th</sup> Ed.) at 209; Case and  
23 Fair, *Principles of Microeconomics* at 158-159 & 162; Ayers and Collinge, *Microeconomics:  
24 Explore & Apply* at 180; McConnell and Brue, *Microeconomics: Principles, Problems & Policies*  
(17<sup>th</sup> Ed.) at 150-151; O'Sullivan and Sheffrin, *Microeconomics Principles and Tools* (2d Ed.) at  
169; Salvatore, *Theory and Problems of Managerial Economics* at 130) as Exhibits 7 to 13,  
respectively.

25 <sup>7</sup> Average Revenue in this declaration refers to average quarterly revenue from Oracle's  
26 first quarter of fiscal 2006 through the second quarter of Oracle's fiscal 2009 for the OUSA and  
27 OEMEA entities (produced in discovery), and for Oracle as a Whole quarterly information from  
the first quarter of fiscal 1997 through the first quarter of fiscal 2010 (from the publicly available  
website, oracle.com).

28 <sup>8</sup> Macfie and Nufrio, *Applied Statistics for Public Policy* at 432, 446. I have included the  
relevant excerpts as Exhibit 14.

1 the origin,” (functionally the same as my zero intercept regression), is a relevant and useful tool.<sup>9</sup>  
2 It is also intuitively obvious that Levy is mistaken because if Oracle’s revenues were zero the  
3 firm would be out of business and it would incur no fixed or variable costs.<sup>10</sup>

4 26. To quantify fixed costs, I used a standard statistical formula found in numerous  
5 statistics textbooks that estimates the intercept value from the slope coefficient (b) in the  
6 equation:

$$\text{Intercept} = \text{average Y minus [b times average X]}^{11}$$

8 Where:

9 Intercept = estimated fixed costs

10 average Y = Average Total Cost<sup>12</sup>

11 b = slope of the cost equation at Average Revenue and

12 average X = Average Revenue

13 27. In other words, at Average Revenue fixed cost is equal to the Average Total Cost  
14 minus the slope (b) times Average Revenue. My model, therefore, only generates one output;  
15 namely the ratio of variable to total costs<sup>13</sup> at Average Revenue. I then use the ratio to quantify a  
16 variable cost percentage in my subsequent analysis (about which, Levy appears to have no  
17 criticism).

18 28. On the other hand, Levy uses his equation to estimate the total cost function, and  
19 then subtracts a regression-calculated intercept value that has no economic meaning to derive  
20 variable costs. That was not my model’s purpose and Levy is incorrect to suggest otherwise.

21 29. My methodology and the estimate it derives are premised on certain fundamental  
22 accounting principles. First, by definition, variable costs are zero when revenues are zero. This

23 <sup>9</sup> Gujarti, *Basic Econometrics* at 155-157 (Exhibit 17).

24 <sup>10</sup> As a practical matter, the firm would be shedding costs as its business shrunk from  
billions of dollars to zero until at the time revenues were zero it would have no costs at all.

25 <sup>11</sup> Pindyck and Rubinfeld, *Econometric Models and Economic Forecasts* (2d Ed.) at 156,  
26 and Macfie and Nufrio, *Applied Statistics for Public Policy* at 430. I have included the relevant  
excerpts as Exhibits 15 and 14, respectively.

27 <sup>12</sup> Oracle provided quarterly accounting data. Accordingly, Average Total Cost is the  
average of the quarterly actual total costs incurred by the relevant firm entities.

28 <sup>13</sup> The variable cost ratio is one minus the fixed cost ratio

1 is inarguable. I have included in Exhibits 7 to 13 relevant excerpts from microeconomics  
2 textbooks to illustrate this. Second, my analysis estimates relevant variable cost not incremental  
3 cost. Meyer calculated lost profits on the basis of revenue minus direct costs (revenue minus  
4 direct costs is generally referred to as gross margin). Meyer applied Oracle's published gross  
5 margin on support revenue, which is 90% (i.e., if revenues are \$100 then direct expenses are \$10  
6 and gross margin is \$90). Oracle did not provide its accounting data in a form that would allow  
7 incremental costs to be computed. Accordingly, only variable costs are at issue and my analysis  
8 is the only evidence on what the relevant variable costs are in this case. Furthermore, it is  
9 virtually impossible to compute Oracle's incremental costs over a range of revenue activity in the  
10 hundreds of millions of dollars because so many of its costs are partially fixed. In fact, many of  
11 the firm's costs may be thought of as "sticky" and are sometimes referred to as step variables.  
12 Step variables do not vary directly with revenues but rather remain fixed over a modest range of  
13 activity (which means the cost curve is flat over that range of activity), then increase in a jump to  
14 a higher value. An example of a step variable is space rental, which tends to be fixed over a given  
15 range before jumping or shrinking to a new value when a firm takes on new space or relinquishes  
16 excess space. Because the total revenues at issue in this case are a few hundred million dollars  
17 (of course, the exact amount is at issue), and because of the limited production of Oracle's  
18 accounting information, the only rational way to quantify lost profits is to compute allegedly lost  
19 revenues then subtract the relevant variable costs. (Of course, the same is true for SAP on the  
20 disgorgement of profits computation).

21 30. Oracle's annual report, 10-K, confirms the gross margin of approximately 90% but  
22 also includes a statement<sup>14</sup> that says the reported gross margin does not include all of the costs  
23 incurred to generate the revenue. Therefore, the evidence Oracle produced in this case proves

24 \_\_\_\_\_  
25 <sup>14</sup> Oracle Corporation Form 10-K for the fiscal year ended May 31, 2007, page 103,  
26 footnote 2, states, "The margins reported reflect only the direct controllable costs and expenses of  
27 each line of business and do not represent the actual margins for each operating segment because  
28 they do not contain an allocation of product development, information technology, marketing and  
partner programs, and corporate and general and administrative expenses incurred in support of  
the lines of business. Additionally, the margins do not reflect the amortization of intangible  
assets, restructuring costs, acquisition related costs or stock-based compensation." I have  
included the relevant portion as Exhibit 18.

1 that Meyer's estimate of the deductible costs is wrong. Meyer ignores this statement from  
2 Oracle's 10-K even though it is an admission by Oracle that the 90% margin he applied in  
3 computing Oracle lost profits is overstated, which overstates lost profits.

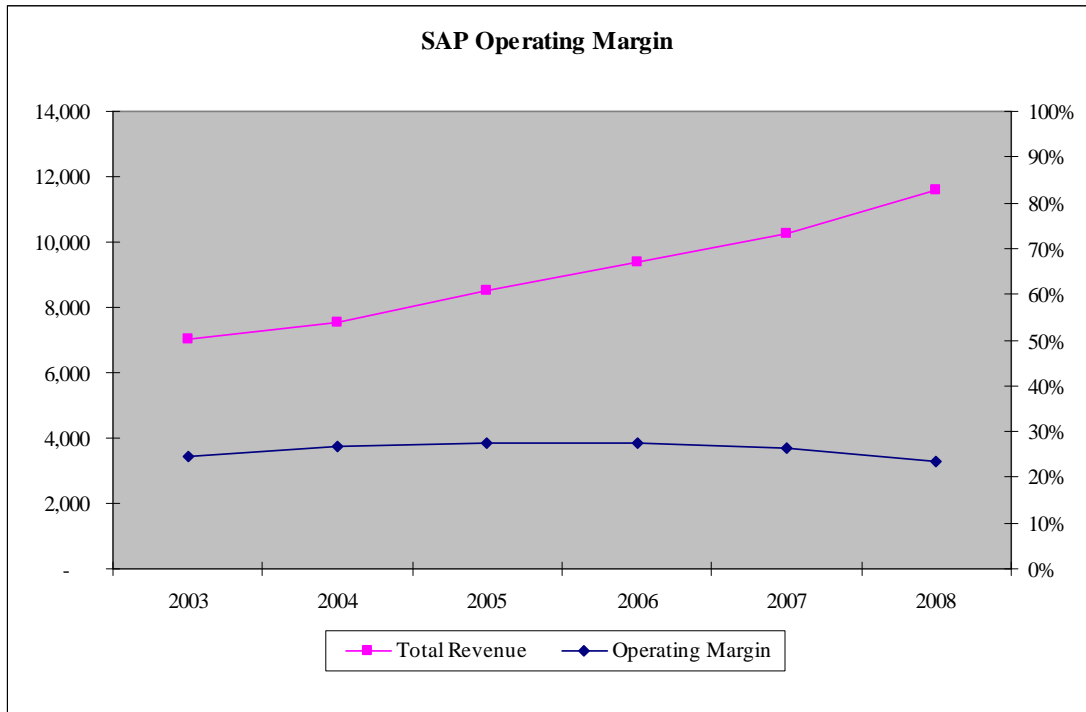
4 31. Lost profits in this case are Oracle's lost revenues arising as a result of the action  
5 alleged minus the variable costs incurred to earn those revenues. Therefore, I quantified the  
6 variable costs Oracle would have incurred to generate its lost revenue. In addition to a regression  
7 analysis, there are other ways to estimate variable costs. However, other methods involve  
8 analysis of a company's detailed income statements, which is impractical in large, complex  
9 companies like Oracle that have tens of thousands of accounts in their immense general ledgers.  
10 Furthermore, Oracle did not produce all of the accounting information needed to perform such an  
11 analytical approach.

12 32. Oracle's and SAP's published financial statements show that they manage the  
13 business such that for all practical purposes *all* direct and operating expenses are variable. As the  
14 graphs below show (Figures 1 and 2), SAP's operating margin has been within a few percentage  
15 points of 25% while revenues have increased from about €7 billion up to almost €1.6 billion  
16 which is an almost 66% increase. Oracle has exhibited a similar pattern. Although its revenues  
17 increased from \$9.5 billion in 2002 to \$23.3 billion in 2009, a 145% increase, its margins have  
18 barely changed and have varied within a few percentage points of 35%.

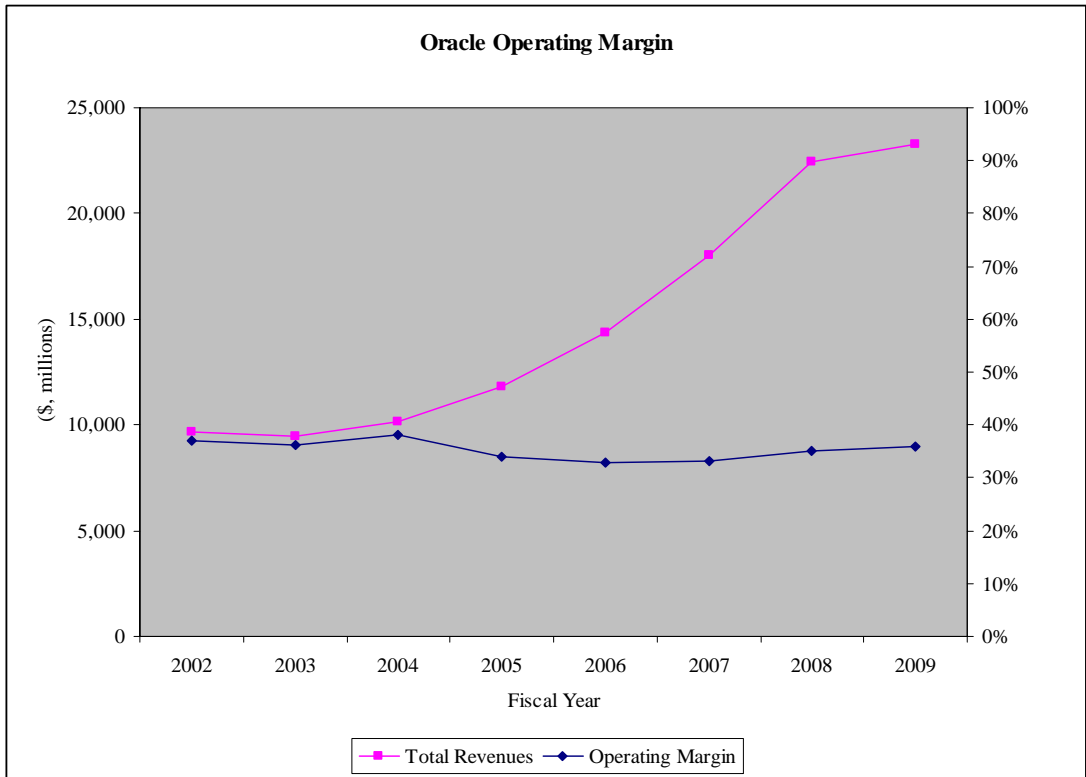
19 33. The SAP and Oracle financial statements in their annual reports reveal that no  
20 matter what happens to revenues, operating profit margin remains within a tight range.  
21 Therefore, both companies have demonstrated their ability to add or shed fixed expenses rapidly  
22 and with almost total freedom of action in order to maintain their net margins. I have not taken  
23 the aggressive step of claiming that all of Oracle's expenses should be deducted from their  
24 allegedly lost revenues to compute lost profits, but the 90% margin Meyer applied is far too high  
25 and admittedly wrong. Interestingly, Levy proves Meyer wrong in his use of the 90% margin.  
26 Levy opines that the OUSA variable costs are 35% of revenue which directly contradicts Meyer's  
27 opinion that variable costs are 10% of revenue.  
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**Figure 3**



**Figure 4**



1           34.     Based on the foregoing accounting analysis, I quantified variable costs by  
2 modeling costs against revenue according to standard microeconomic principles to arrive at a  
3 factor measuring the change in cost due to a change in revenue. Using my model output, I  
4 applied the variable cost percentage to lost revenues to estimate the lost profits of each Oracle  
5 entity at issue in this case over the relevant period.

6           ***Levy's criticisms of "estimates."***

7           35.     In his Declaration, Levy is confused with regard to what I was estimating. On  
8 page four of his declaration, he claims that I attempted to *estimate* total costs, variable costs, and  
9 fixed costs. Then on page five of his declaration, he claims that I estimated average costs. Levy  
10 is incorrect and he is misleading the Court. I never use the equation to *estimate* the actual costs  
11 (fixed or variable) for *any* level of revenue. I am also not estimating average costs. Rather, I use  
12 the equation only to identify the slope of the variable cost curve which I then use to quantify the  
13 percentage of variable to total cost. My model is valid for my purposes and follows standard  
14 microeconomic principles. Levy and Meyer offer no alternative method to quantify the relevant  
15 expenses incurred by the Oracle entities at issue in this case, and that determination is absolutely  
16 required to properly compute lost profits damages, because Oracle admits that the gross margin  
17 Meyer used in his analysis overstates Oracle's gross profits.

18           ***Levy's criticisms of my understanding of log-log models.***

19           36.     Levy states that I do not understand the relationship between variables in a double  
20 log model (which Levy refers to as a log-log model). Levy takes issue with my statement that the  
21 intercept in the double log model is meaningless. In my deposition I said, "although there's an  
22 intercept embodied in the calculation, that intercept has no meaning. There is no use in my  
23 analysis of an intercept value independent of its role in that log function." Exhibit 19 (6/10/10  
24 Clarke Tr. at 962:19-23).

25           37.     In a double log model the intercept cannot be used to calculate fixed costs, so the  
26 intercept has no meaning outside the terms of the function in which it is stated. Although the  
27 intercept cannot be used to directly calculate fixed costs, it is still required in the equation.  
28 In other words, the equation

1 
$$\text{Total Cost} = aX^b$$

2 would be incomplete without the “a” term. That the “a” is not usable to estimate fixed costs (i.e.,  
3 costs when revenue is zero) is immediately obvious if you substitute zero for X in the equation  
4 because the result is zero which means fixed costs are also zero.

5 ***Irrelevant hypothetical scenarios using simulated data.***

6 38. None of Levy’s hypothetical scenarios are properly specified because they do not  
7 conform to appropriate cost accounting, nor do they fit standard microeconomic principles. In  
8 their textbook *Managerial Economics*,<sup>15</sup> Samuelson and Marks indicate clearly that you must use  
9 a model that makes a priori economic sense. None of the hypothetical scenarios Levy presents do  
10 so. For example, Levy’s Figure 4, Scenario 1 suggests that *all costs are fixed* and none are  
11 variable. Scenario 2 suggests that variable costs *decline* as revenues increase. Scenario 3 suggests  
12 that fixed costs are *negative*. None of these models pass muster as economically sensible and are  
13 actually misleading.

14 ***Levy’s criticisms of bias in regressions.***

15 39. As I said in my deposition, most time-series regression analyses have some degree  
16 of autocorrelation. It is in the nature of time-series analysis for that to happen because so many  
17 variables change in a certain manner over time (for example, population tends to grow over time  
18 so modeling a set of variables that include population and time frequently results in the model  
19 exhibiting autocorrelation). But even if a time-series regression has autocorrelation, the estimated  
20 regression coefficients are still unbiased.<sup>16</sup> The problem autocorrelation may cause is that the R<sup>2</sup>,  
21 F-statistic, and t-statistics are overstated, making the equation appear stronger than it actually is.  
22 But the regression coefficients themselves are unbiased by the autocorrelation.

23 ***Levy’s criticisms of my treatment of autocorrelation.***

24 40. Autocorrelation is present when there is a pattern in the error terms derived by the  
25 regression equation. Such patterns often arise in data that has seasonality such as buying patterns  
26 for toys, which show a pattern of peaking in the fourth calendar quarter. Levy criticizes my

27 <sup>15</sup> I have included relevant excerpts in Exhibit 20.

28 <sup>16</sup> Pindyck and Rubinfeld, *Econometric Models and Economic Forecasts* at 153; Schmidt,  
*Econometrics* at 223. I have included relevant excerpts as Exhibits 15 and 16, respectively.



1 treatment of autocorrelation. Any criticism of my analysis because of alleged inappropriate  
2 treatment of autocorrelation is now irrelevant because only the “Oracle as a Whole” exhibited  
3 autocorrelation and as a result of this Court’s ruling on Defendants’ summary judgment motion,  
4 Oracle as a Whole is now out of the case. However, I deal with Levy’s criticisms as if Oracle as a  
5 Whole were still relevant.

6 41. Levy states that I did not check for autocorrelation. However, for all of my  
7 equations I checked for autocorrelation using a Durbin-Watson statistic and provided the  
8 calculation in Appendices M and U to my report. As I wrote in my report, the Durbin-Watson  
9 statistics were: 2.07 (no autocorrelation) for SAP, 1.17 (inconclusive for autocorrelation) for  
10 OUSA, and 0.86 (autocorrelation present) for Oracle as a Whole. Therefore, only Oracle as a  
11 Whole exhibited autocorrelation and Oracle as a Whole is no longer in the case. In addition, as I  
12 said in deposition, with such high outputs for Corrected  $R^2$  (over 89%), F-statistic (432), and t-  
13 statistic (greater than 20), I determined there was no need for an autocorrelation adjustment. Had  
14 I adjusted for autocorrelation, the  $R^2$  would have been reduced but not to any significant degree.

15 ***Levy’s criticisms of F-test.***

16 42. The *F-statistic* measures whether variances are different between two or more  
17 populations. During my deposition I was given a document for an F-test that was not necessary  
18 in this case. The document referred to a Chow test, which is used to determine whether the slopes  
19 of two equations are different. However, I was not comparing the slopes of two different  
20 equations in my analysis, so I did not need to do a Chow test. The questioning attorney evidently  
21 was confused about which type of F-test he was referring to in his question. I answered regarding  
22 an F-test for the significance of an entire equation, a perfectly legitimate response to his question.  
23 I stated that the test was not applicable because I already knew the equation was statistically  
24 significant (based on  $R^2$ ) and, because there was only one variable, an F-test is unnecessary.

25 ***Levy’s criticisms of lack of fixed effects analysis.***

26 43. Levy criticizes my SAP equation for not considering fixed effects. I am certainly  
27 aware that techniques can be employed to qualitatively account for different variables, although I  
28 refer to them as “dummy variables” rather than fixed effects. I have used them extensively. Levy

1 specifies an alternative SAP model with 16 additional dummy variables and suggests that the  
2 variable cost factor is 16% points (58.2% minus 42.2%) less than the figure I calculated. His  
3 analysis is inappropriate and results in a flawed opinion.

4 44. The accounting data SAP provided were not detailed enough to allow a qualitative  
5 accounting analysis (in such an analysis, each account is considered in turn and classified as  
6 being fixed, variable or a blend of both – based on the analysis, a variable cost percentage is  
7 estimated). Accordingly, I was forced to use regression analysis to quantify variable costs and  
8 Meyer should have done something similar.

9 45. Had Levy checked the SAP accounting data produced in this case, he would have  
10 discarded his fixed effects model because the data are based on geography, not functional area or  
11 revenue. According to SAP’s 2009 Annual Report (p. 238): “Our internal reporting system  
12 produces reports in which business activities are presented in a variety of ways, for example, by  
13 line of business, geography and areas of responsibility of the individual Executive Board  
14 members (Board areas).” However, SAP only produced geographical information in discovery in  
15 this case.

16 46. SAP AG in Germany is the corporate headquarters for SAP and incurs numerous  
17 costs on behalf of its subsidiaries. In fact, SAP AG alone accounts for over one third of all SAP  
18 costs and revenues. Any analysis by country using Levy’s suggested approach would be  
19 significantly affected by interference from SAP AG cross-charges and its intercompany  
20 accounting policies. Once again, therefore, Levy’s lack of understanding of standard accounting  
21 practices leads him to a flawed conclusion. Separating these entities by including dummy  
22 variables to account for countries (or size) would significantly bias both the slope and intercepts  
23 of the resulting equations. Accordingly, I did not pursue the dummy variable approach Levy  
24 recommends and instead used the straight panel data to estimate the average variable cost factor.

25 //

26 //

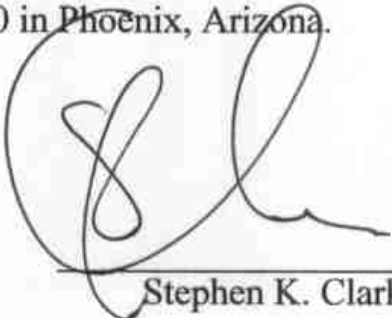
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I declare under penalty of perjury under the laws of the United States and the State of California that the foregoing is true and correct.

Executed this 9th day of September, 2010 in Phoenix, Arizona.



Stephen K. Clarke