

1 Wilmer J. Harris [SBN 150407]  
wharris@sshhlaw.com  
2 Isabel M. Daniels [SBN 270887]  
idaniels@sshhlaw.com  
3 SCHONBRUN SEPLow  
HARRIS & HOFFMAN LLP  
4 715 Fremont Ave., Suite A  
South Pasadena, CA 91030  
Telephone: (626) 441-4129  
5 Facsimile: (626) 283-5770

6 Jay Angoff [D.C. Bar #248641]  
Cyrus Mehri [D.C. Bar #420970]  
7 Steven Skalet [D.C. Bar #359804]  
MEHRI & SKALET PLLC  
8 1250 Connecticut Ave. NW, Suite 300  
Washington, DC 20036  
9 Telephone: (202) 822-5100

10 Attorneys for Plaintiffs  
Additional Counsel listed on Signature Page

11 **SUPERIOR COURT OF THE STATE OF CALIFORNIA**  
12 **FOR THE COUNTY OF LOS ANGELES**

13 \_\_\_\_\_  
14 ROGER HARRIS, DUANE BROWN, AND  
15 BRIAN LINDSEY,

16 Plaintiffs,

17 vs.

18 FARMERS INSURANCE EXCHANGE  
19 AND MID CENTURY INSURANCE  
COMPANY,

20 Defendants.

Case No: BC 579498  
[Assigned to the Hon. Amy D. Hogue in Dept.  
307]

**FIRST AMENDED CLASS ACTION**  
**COMPLAINT FOR DAMAGES**

1. Violation of the Unfair Competition Law – Commission of Unlawful Business Act or Practice Cal. Bus. & Prof. Code § 17200 et seq.
2. Violation of the Unfair Competition Law – Commission of Unfair Business Act or Practice Cal. Bus. & Prof. Code § 17200 et seq.
3. Violation of the Unfair Competition Law – Commission of Fraudulent Business Act or Practice Cal. Bus. & Prof. Code § 17200 et seq.
4. Unjust Enrichment
5. Violation of Cal. Ins. Code § 1861.10

**JURY TRIAL DEMANDED**



1 present. That data indicates, among other things, that their most loyal customers are willing to pay  
2 more than new customers who present the same risk.

3 7. The use of elasticity of demand as a rating factor thus results in the Defendants'  
4 most loyal customers paying more than they would pay based on the risk they present.

5 8. Defendants have not disclosed their use of elasticity of demand as a rating factor to  
6 the California Department of Insurance, and the Department has not approved its use.

7 9. In their marketing materials, Defendants intentionally omit and fail to disclose their  
8 use of elasticity of demand as a rating factor in determining auto insurance premiums.

9 10. Plaintiffs and members of the Class have paid higher prices for their insurance  
10 coverage than have other insureds who present the same risk.

11 11. Plaintiffs bring this action on behalf of themselves and other similarly situated  
12 insureds for violation of California's Unfair Competition law, violation of California Insurance  
13 Code Section 1861.10, and for unjust enrichment.

#### 14 JURISDICTION AND VENUE

15 12. This action is properly brought in the Superior Court of the State of California.  
16 Each cause of action enumerated below arises from California state law and the events giving rise  
17 to this lawsuit took place in California, including the County of Los Angeles.

#### 18 PARTIES

19 13. Plaintiff Roger Harris is a citizen of the State of California and is a customer of  
20 Defendants. Mr. Harris resides in Lompoc, California in the County of Santa Barbara.

21 14. Plaintiff Harris has been a loyal customer of Defendants for more than 15 years.

22 15. Plaintiff Harris has purchased auto insurance from Defendants for multiple vehicles.  
23 Currently, Plaintiff purchases auto insurance for one vehicle from Defendants.

24 16. Plaintiff Duane Brown is a citizen of the State of California and is a customer of  
25 Defendants. Mr. Brown resides in Lompoc, California in the County of Santa Barbara.

26 17. Plaintiff Brown became a customer of Defendants in 1997 and has been a loyal  
27 customer of Defendants since that time.

1           18. Plaintiff Brown has purchased auto insurance from Defendants. Currently, Plaintiff  
2 purchases auto insurance for six automobiles from Defendants.

3           19. Plaintiff Brian Lindsey is a citizen of the State of California and is a customer of  
4 Defendants. Mr. Lindsey resides in the County of Santa Barbara.

5           20. Plaintiff Lindsey is a loyal customer of Defendants.

6           21. Plaintiff Lindsey has purchased auto insurance from Defendants. Currently,  
7 Plaintiff purchases auto insurance for at least one automobile from Defendants.

8           22. Defendants have never notified Plaintiffs that they are charging them more than  
9 other policyholders presenting the same risk because of their willingness to tolerate a price  
10 increase.

11           23. As explained in more detail below, Plaintiffs have been injured in fact and directly  
12 harmed as a result of Defendants' failure to disclose their use of elasticity of demand as a rating  
13 factor, in that Plaintiffs have been fraudulently, deceptively and unfairly misled into paying a  
14 premium that is higher than it would have been had Defendants calculated Plaintiffs' premiums  
15 based on the risk they present.

16           24. A direct causal relationship exists between Defendants' unlawful conduct and the  
17 ascertainable losses suffered by Plaintiffs and the Class. Had Defendants' use of elasticity of  
18 demand as a rating factor been disclosed, Plaintiffs (and other Class members) would have paid  
19 less for auto insurance.

20           25. Defendants are all organized under the laws of California and domiciled in  
21 California, and their principal place of business is Los Angeles, CA. Their statutory home office  
22 and main administrative office is in Los Angeles, and Los Angeles is the primary location of their  
23 books and records. Farmers is the largest auto insurer in California. Consumers obtain auto  
24 insurance via Farmers agents, as well as via [www.farmers.com](http://www.farmers.com).

25 ///

26 ///

27 ///

1 **COMMON FACTUAL ALLEGATIONS**

2 **How Auto Insurance Premiums Are Set in California**

3 **Establishing the Base Rate**

4 26. Auto insurance premiums in California are set pursuant to a two-step process. First,  
5 the insurer must calculate a base rate, which is the same for each policyholder and represents the  
6 total annual premium that the insurer must charge in order to cover expenses and obtain a  
7 reasonable rate of return. The insurer must obtain the Department's approval of its base rate by  
8 filing a rate application. Cal. Ins. Code § 1861.05 (West).

9 27. Cal. Code Regs. Tit. 10, § 2644.1 *et seq.* sets forth the standards governing the base  
10 rate. In the rate application, the insurer seeks the Department's approval of the base rate, but it  
11 does not seek the Department's approval of the rating factors it will apply to the base rate to  
12 calculate premiums.

13 **Applying Rating Factors to the Base Rate to Calculate Premiums**

14 28. The second step in establishing auto insurance premiums in California is applying  
15 rating factors to the base rate in order to produce the premium. California law defines "rating  
16 factor" as "any factor, including discounts, used by an insurer which establishes or affects the rates,  
17 premiums, or charges assessed for a policy of automobile insurance." Cal. Code Regs. Tit. 10, §  
18 2632.2(a)

19 29. California also requires insurers to submit a separate filing, called a class plan,  
20 which discloses the rating factors the insurer uses and explains how those rating factors are applied  
21 to the base rate to produce premiums. Cal. Code Regs. Tit. 10, § 2632.11

22 30. In California, three mandatory rating factors are authorized by statute: mileage  
23 driven, driving record, and years of driving experience. Cal. Ins. Code § 1861.02(a).

24 31. The statute also authorizes the Commissioner to adopt additional rating factors by  
25 regulation. Cal. Ins. Code § 1861.02(a)(4). The Department has promulgated a regulation setting  
26 forth the rating factors insurers are permitted to use, Cal. Ins. Code § 2632.5(d), and has  
27 specifically provided that "No insurer shall use a rating factor which is not set forth in these  
28

1 regulations.” Cal. Code Regs. § 2632.4(a).

2 32. The Commissioner has not adopted elasticity of demand as a rating factor, and thus  
3 does not permit insurers to use elasticity of demand to “establish[] or affect[] the rates, premiums,  
4 or charges assessed for a policy of automobile insurance.” Cal. Code Regs. § 2632.2(a).

5 33. In California, insurers, including Defendants, are also barred from using any rating  
6 factor that does not bear a substantial relationship to the risk of loss. Cal. Ins. Code §  
7 1861.02(a)(4); Cal. Code Regs. Tit. 10, § 2632.4(b).

8 34. California law also provides that “no insurer may hereafter use a class plan, or  
9 charge or collect a premium which does not comply with” the California Insurance Code or the  
10 regulations of the Department of Insurance. Cal. Code Regs. Tit. 10, § 2632.10(a).

11 35. California law also directs that “[n]o person, insurer or organization shall willfully  
12 withhold information from, or knowingly give false or misleading information to, the  
13 commissioner or to any rating organization, advisory organization, insurer or group, association or  
14 other organization of insurers, which will affect the rates, rating systems or premiums for the  
15 classes of insurance to which the provisions of this chapter are applicable.” Cal. Ins. Code § 1859.

16 **The Use of Elasticity Of Demand as a Rating Factor**

17 36. “Elasticity of demand” is the technical term for an individual’s sensitivity to price  
18 changes.

19 37. An individual whose demand is elastic is sensitive to price changes, *i.e.*, he or she  
20 will seek insurance elsewhere in response to a relatively small price increase. The more sensitive  
21 the individual is to price changes – *i.e.*, the smaller the increase in price that will cause the  
22 individual to shop – the more elastic is that individual’s demand.

23 38. Conversely, an individual whose demand is inelastic is relatively insensitive to price  
24 changes – he or she is relatively unlikely to seek insurance elsewhere in response to a price  
25 increase. The more the insurer can raise its prices to such an individual without causing him or her  
26 to switch carriers, the more inelastic that individual’s demand is.

27 39. By using elasticity of demand as a rating factor, Defendants charge customers  
28

1 whose demand is inelastic—who are unlikely to seek insurance elsewhere in response to a price  
2 increase—more than customers who are likely to shop around in response to a price increase, all  
3 other things being equal. Defendants’ customers whose demand is inelastic thus pay prices that are  
4 higher than they would have paid based on the risk they present, and higher than they would have  
5 paid in accordance with the class plan Defendants filed with the Department and that the  
6 Department approved.

7 40. Defendants did not disclose in their class plan the use of elasticity of demand as a  
8 rating factor to the Department, and the Department did not approve Defendants’ use of elasticity  
9 of demand as a rating factor.

10 **California Has Specifically Prohibited the Use of Elasticity of Demand as a Rating Factor, As**

11 **Have Other States**

12 41. The term commonly used by insurance companies and insurance regulators for the  
13 use of elasticity of demand as a rating factor is “price optimization.” On February 18, 2015, the  
14 California Department of Insurance issued a bulletin (the “Bulletin”) announcing that “any use of  
15 Price Optimization in the ratemaking/pricing process or in a rating plan is unfairly discriminatory  
16 in violation of California law,” and ordering any insurer using price optimization to discontinue  
17 doing so. The Bulletin defines “price optimization” as “any method of taking into account an  
18 individual’s or class’s willingness to pay a higher premium relative to other individuals or classes.”  
19 It also notes that “price optimization does not seek to arrive at an actuarially sound estimate of the  
20 risk of loss and other future costs of a risk transfer.”

21 42. The California Department of Insurance further explained how price optimization  
22 works in a press release accompanying its Bulletin:

23 Because price optimization does not use actuarially sound methods to estimate the  
24 risk of loss, its use in the ratemaking process is unfairly discriminatory and violates  
25 California law. Insurers have utilized price optimization by applying sophisticated  
26 models that allow them to identify trends that predict at what price point a  
27 consumer would terminate his or her policy or comparison shop. Insurers have  
28



1           48.     According to Earnix, “[t]he financial benefits of price optimization can be  
2 significant” for its insurer clients. *See* Exhibit B, Earnix Brochure, “Price Optimization in North  
3 America: Myth vs. Reality”, September 2012, at p. 2. “Companies that adopt optimization as a  
4 pricing strategy can realize improvement of 1-4 points in the combined ratio...” *Id.*

5                   **Defendants Hide Their Use of Elasticity of Demand as a Rating Factor From Their**  
6                                   **Customers and Regulators**

7           49.     Defendants provide customers and potential customers with information regarding  
8 their auto insurance policies, practices, and premiums via marketing materials, including Farmers’  
9 website, [www.farmers.com](http://www.farmers.com).

10          50.     Yet, Defendants hide their use of elasticity of demand as a rating factor from  
11 customers and potential customers.

12          51.     Defendants do not inform insureds that they are using elasticity of demand as a  
13 rating factor and that their car insurance premiums are impacted—or, more specifically,  
14 increased—by their willingness to accept a price increase.

15          52.     To the contrary, at their website, [www.farmers.com](http://www.farmers.com), Defendants convey the  
16 impression that they determine premiums based solely on risk, and do not consider an insured’s  
17 willingness to tolerate a price increase at all in setting premiums.

18          53.     For example, Farmers states at its website that “insurance companies charge a rate  
19 that is appropriate for the risk of the insured individual,” and that “tickets and accidents,” “adding a  
20 driver,” “moving to a new residence,” and “if you’ve recently switched vehicles” can cause your  
21 premium to increase. Nowhere on Farmers’ website does Farmers disclose that an insured’s  
22 elasticity of demand can affect an individual’s premium, even though that is the case.

23          54.     Consultants have boasted about the fact that the use of elasticity of demand as a  
24 rating factor is hidden from regulators and therefore that regulators cannot tell whether an insurer is  
25 using an individual’s willingness to pay a higher premium than the risk-based premium in its  
26 computations.

27          55.     For example, in a presentation to the National Association of Insurance  
28

1 Commissioners Study Group (NAIC), consulting company Towers Watson stated in writing that  
2 the “regulatory process remains the same” because there is “[n]o easy way to see if a company is or  
3 is not using the tool.”

4 **Farmers’ Use of Elasticity of Demand as a Rating Factor**

5 56. Farmers employees have acknowledged Farmers’ use of elasticity of demand in  
6 calculating premiums. A Senior Analyst who worked at Farmers between August 2008 and June  
7 2012, for example, has said that his projects included “price elasticity modeling of differing  
8 consumer segments.”

9 57. An Actuarial Analyst at the Farmers Personal Lines Pricing Group, who has been in  
10 that position since February 2012, says that he is “managing team on the design, implementation,  
11 and delivery of an auto insurance price optimization tool,” and that he has “pitched potential price  
12 optimization schemes that incorporate retention, conversion, and elasticity modeling.”

13 58. A Product Manager working at Farmers between 2003 and 2008 says that he “built  
14 and used GLM’s for retention price elasticity.”

15 59. Further, a Senior Product Manager who was working at Farmers in 2007-2008 says  
16 he “designed pricing strategy” through “proper segmentation” and “demand estimation.”

17 60. Farmers’ use of elasticity of demand in calculating premiums has enabled it to earn  
18 higher profits. In its 2012 Annual Statement filed with state insurance departments and the  
19 National Association of Insurance Commissioners, Farmers acknowledged that it has “expanded its  
20 auto product sophistication resulting in gross written premium growth in both 2012 and 2011,” and  
21 that it expects “the use of advanced analytics to play a crucial role in our growth.” It also refers to  
22 “the continual review of the re-underwriting and/or re-pricing of certain renewal business.” The  
23 renewal business that has been with Farmers the longest—Farmers’ most loyal customers—are  
24 among those who, because of Farmers’ use of elasticity of demand as a rating factor, are likely to  
25 pay more than is justified by the risk they present.

26 61. In 2013, Farmers was the most profitable of the 25 largest auto liability insurers in  
27 California (who account for more than 98% of the market). According to the California  
28

1 Department of Insurance, Farmers had a loss ratio of 54.32, which means that for each premium  
2 dollar it collected it paid out 54.3 cents, thus leaving 45.7 cents left over for expenses and profit.  
3 The average auto liability loss ratio in California in 2013 was 65.46. Farmers therefore had a  
4 20.5% (i.e.,  $(65.46 - 54.32)/54.32$ ) loss ratio advantage over the average California auto liability  
5 insurer in 2013.

6 62. The Casualty Actuarial Society (CAS) is the professional association of  
7 property/casualty actuaries. Although the use of elasticity of demand as a rating factor violates  
8 long-established CAS standards, a group of seven actuaries within the CAS is now seeking to  
9 persuade state insurance departments and the NAIC to allow it (and to have the CAS change its  
10 standards to allow it). These actuaries call themselves the Working Party. The Chair of the  
11 Working Party is an actuary employed by Farmers who specializes in the California market, who  
12 manages the Los Angeles-based portion of the Farmers Personal Lines Research and Development  
13 team, and who is responsible for new product rating plan development.

14 63. In a presentation to the NAIC's Casualty Actuarial Task Force on November 16,  
15 2014, the Farmers actuary explained how "price optimization"—i.e., the use of elasticity of  
16 demand as a rating factor—differs from the risk-based pricing currently mandated by both  
17 California insurance law and the CAS. The Farmers actuary's presentation admitted that "price  
18 optimization" supplemented and was different from traditional actuarial loss cost models, because  
19 it "include[s] quantitative customer demand models for use in determining customer prices," and  
20 produced "adjustments to the cost models." Price Optimization Overview, CAS Committee on  
21 Ratemaking, Price Optimization Working Party, Nov. 2014, slide 4 (available at  
22 [http://www.naic.org/committees\\_c\\_catf.htm](http://www.naic.org/committees_c_catf.htm)).

23 64. A written statement accompanying the Farmers-led presentation to the NAIC (the  
24 "Statement") further made clear how different "price optimization" is from lawful risk-based  
25 pricing. Price optimization, according to the Statement, involves "collect[ing] detailed data on risk  
26 retention, defecting clients, quote data, and closure rates," and collecting such data "provides a  
27 wealth of additional information beyond point estimate indications of the cost of risk transfer."  
28

1 The Statement further noted that “management can use this additional information to suggest  
2 revisions in indicated rating factors.” CAS Draft Document, Price Optimization Overview, CAS  
3 Committee on Ratemaking, Price Optimization Working Party, Nov. 2014, at 3 (available at  
4 [http://www.naic.org/committees\\_c\\_catf.htm](http://www.naic.org/committees_c_catf.htm)).

5 **CLASS ALLEGATIONS**

6 65. Plaintiffs, on behalf of themselves and all others similarly situated, bring this action  
7 pursuant to California Code of Civil Procedure Section 382. This action satisfies the numerosity,  
8 commonality, typicality, adequacy, predominance and superiority requirements.

9 66. The proposed Class is defined as:

10 All Farmers customers who are citizens of the state of California and who,  
11 within the applicable statute of limitations preceding the filing of this  
12 action to the date of class certification, purchased automotive vehicle  
13 insurance, were subject to Farmers’ practice of using elasticity of demand  
14 as a rating factor, and were charged or paid a higher premium than the  
15 risk-based premium.

16 67. Excluded from the Class is Farmers, its parents, subsidiaries, affiliates, officers and  
17 directors, any entity in which Farmers has a controlling interest, all customers who make a timely  
18 election to be excluded, governmental entities, and all judges assigned to hear any aspect of this  
19 litigation, as well as their immediate family members.

20 68. Membership in the class is ascertainable based on computerized records maintained  
21 by Defendants. Plaintiffs reserve the right to modify or amend the definition of the proposed Class  
22 before the Court determines whether certification is appropriate.

23 69. The Class is numerous such that joinder of all Class members is impracticable. The  
24 proposed Class contains many thousands of members.

25 70. Common questions of law and fact exist as to all members of the Class and  
26 predominate over questions affecting only individual Class members. The common legal and  
27 factual questions include, but are not limited to, the following:  
28

- a. Whether Defendants consider Class members' elasticity of demand as a rating factor in establishing the premium charged to Class members;
- b. Whether Defendants' use of elasticity of demand as a rating factor produces premiums that exceed the risk-based premium;
- c. Whether Defendants' use of elasticity of demand as a rating factor produces premiums that are higher than the expected value of future costs for those policyholders who have inelastic demand;
- d. Whether Defendants' use of elasticity of demand as a rating factor results in customers presenting the same risk being charged different premiums based on their elasticity of demand;
- e. Whether Defendants use elasticity of demand as a rating factor to charge inflated premiums that are not strictly related to individual risk transfer;
- f. Whether Defendants are unjustly enriched through their use of elasticity of demand as a rating factor;
- g. Whether Defendants violate California's Unfair Competition Law through their use of elasticity of demand as a rating factor.

71. Other questions of law and fact common to the Class include:

- a. The proper method or methods by which to measure damages, and
- b. The declaratory relief to which the Class is entitled.

72. Plaintiffs' claims are typical of the claims of other members of the Class and there is no defense available to Defendants that is unique to Plaintiffs.

73. The claims of the representative Plaintiffs are typical of the claims of the Class in that the representative Plaintiffs, like all Class members, paid more than the risk-based premium due to Defendants' use of elasticity of demand as a rating factor. Furthermore, the factual basis of Farmers' misconduct is common to all Class members, and represents a common thread of deceptive, unfair, and unlawful conduct resulting in injury to all members of the Class.

74. Plaintiffs will fairly and adequately represent the interests of the Class. Plaintiffs

1 have no interests that are antagonistic to those of the Class. Plaintiffs have the ability to assist and  
2 adequately protect the rights and interests of the Class during litigation. Further, Plaintiffs are  
3 represented by counsel who are competent and experienced in this type of class action litigation.

4 75. This class action is not only the appropriate method for the fair and efficient  
5 adjudication of the controversy, it is the superior method because:

- 6 a. Joinder of thousands of individual Class members is impracticable,  
7 cumbersome, unduly burdensome, and a waste of judicial and litigation  
8 resources;
- 9 b. There is no special interest by the Class members in individually controlling  
10 separate causes of action;
- 11 c. The Class members' individual claims are small compared with the expense  
12 of litigating the claim thereby making it impracticable, unduly burdensome,  
13 and expensive, if not totally impossible, to justify individual Class members  
14 addressing their losses in litigation;
- 15 d. When liability is determined, the claims of all Class members can be  
16 determined through routine mathematical calculations and thus can be  
17 determined by the Court and administered efficiently in a manner that is far  
18 less onerous, burdensome, and expensive than if it were attempted through  
19 filing, discovery, and trial of many individual cases;
- 20 e. This class action will promote the orderly, efficient, expeditious, and  
21 appropriate adjudication and administration of class claims to promote  
22 economies of time and resources;
- 23 f. This class action will assure uniformity of decisions among Class members;
- 24 g. The resolution of this controversy through this class action presents fewer  
25 management difficulties than individual claims filed in which the parties  
26 may be subject to varying adjudication of their rights.

27 76. Furthermore, class treatment is appropriate because Defendants have acted on  
28

1 grounds generally applicable to the Class, making class-wide equitable, injunctive, declaratory and  
2 monetary relief appropriate. In addition, the prosecution of separate actions by or against  
3 individual members of the Class would create a risk of incompatible standards of conduct for  
4 Defendants and inconsistent or varying adjudications for all parties.

## 5 CAUSES OF ACTION

### 6 FIRST CAUSE OF ACTION

#### 7 **Violation of the Unfair Competition Law – Commission of Unlawful Business Act or Practice**

#### 8 **Cal. Bus. & Prof. Code § 17200 *et seq.***

9 77. Plaintiffs repeat, reassert, and incorporate the allegations contained in paragraphs 1-  
10 76 above as if set forth herein.

11 78. Cal. Bus. & Prof. Code § 17200 prohibits any “unlawful, unfair or fraudulent  
12 business act or practice.”

13 79. Defendants’ conduct is “unlawful” because it violates the California Insurance Code  
14 and its implementing regulations in the following ways:

- 15 a. Defendants’ use of elasticity of demand as a rating factor violates Cal. Ins.  
16 Code § 1861.02 because it is not one of the three mandatory rating factors  
17 that are authorized by § 1861.02(a) and it has not been adopted by the  
18 Commissioner as a permissible rating factor pursuant to § 1861.02(a)(4).
- 19 b. Defendants’ use of elasticity of demand as a rating factor violates Cal. Code  
20 Regs. Tit. 10, § 2632.4(a) because elasticity of demand constitutes a rating  
21 factor that is not set forth in or authorized by California regulations.
- 22 c. Defendants’ use of elasticity of demand as a rating factor violates Cal. Ins.  
23 Code § 1861.02(a)(4) and Cal. Code Regs. Tit. 10, § 2632.4(b) because  
24 elasticity of demand does not bear a substantial relationship to loss.
- 25 d. Defendants’ use of elasticity of demand as a rating factor violates Cal. Code  
26 Regs. Tit. 10, § 2632.10(a) in that it causes Farmers to collect a premium  
27 which is not calculated in accordance with a class plan that complies with  
28

1 California regulation.

2 e. Defendants' use of elasticity of demand as a rating factor violates Cal. Ins.  
3 Code § 1859 in that Farmers willfully withheld information from, or  
4 knowingly gave false or misleading information to, the California Insurance  
5 Commissioner concerning its use of elasticity of demand as a rating factor to  
6 unlawfully increase Plaintiffs' and the Class' insurance premiums.

7 80. Plaintiffs and the Class members have suffered injury in fact and have lost money as  
8 a result of Defendants' unlawful business acts or practices.

9 81. Pursuant to Business and Professions Code §§ 17200 and 17203, Plaintiffs seek an  
10 order providing restitution and disgorgement of all profits relating to the above-described unfair  
11 business acts or practices, and injunctive and declaratory relief as may be appropriate.

12 **SECOND CAUSE OF ACTION**

13 **Violation of the Unfair Competition Law – Commission of Unfair Business Act or Practice**

14 **Cal. Bus. & Prof. Code § 17200 *et seq.***

15 82. Plaintiffs repeat, reassert, and incorporate the allegations contained in paragraphs 1-  
16 81 above as if set forth herein.

17 83. Cal. Bus. & Prof. Code § 17200 prohibits any "unlawful, unfair or fraudulent  
18 business act or practice."

19 84. The acts and practices of Defendants as alleged herein also constitute "unfair"  
20 business acts and practices under the UCL in that Defendants' conduct is unconscionable, immoral,  
21 deceptive, unfair, illegal, unethical, oppressive, and/or unscrupulous. Further, the gravity of  
22 Defendants' conduct outweighs any conceivable benefit of such conduct.

23 85. Defendants have, in the course of their business and in the course of trade or  
24 commerce, undertaken and engaged in unfair business acts and practices under the UCL by using  
25 elasticity of demand as a rating factor.

26 86. Defendants have also, in the course of their business and in the course of trade or  
27 commerce, undertaken and engaged in unfair business acts and practices by:

- a. Engaging in bad faith in using elasticity of demand as a rating factor;
- b. Not calculating auto insurance premiums based on risk or loss costs but, instead, using elasticity of demand as a rating factor to inflate premiums;
- c. Making material and misleading omissions about the manner in which they determine auto insurance premiums;
- d. Using elasticity of demand as a rating factor in a manner that was not transparent, ascertainable, or verifiable by Plaintiffs and Class members; and
- e. Unlawfully and unfairly using elasticity of demand as a rating factor to extract additional revenues from their price inelastic customers, including but not limited to those who are or were most loyal by virtue of their tenure as insureds of Defendants.

87. The above-described unfair business acts or practices present a threat and likelihood of harm and deception to members of the Class in that Defendants have systematically perpetrated the unfair conduct upon members of the public by engaging in the conduct described herein.

88. Pursuant to Business and Professions Code §§ 17200 and 17203, Plaintiffs seek an order providing restitution and disgorgement of all profits relating to the above-described unfair business acts or practices, and injunctive and declaratory relief as may be appropriate.

**THIRD CAUSE OF ACTION**

**Violation of the Unfair Competition Law – Commission of Fraudulent Business Act or Practice**

**Cal. Bus. & Prof. Code § 17200 *et seq.***

89. Plaintiffs repeat, reassert, and incorporate the allegations contained in paragraphs 1-88 above as if set forth herein.

90. Cal. Bus. & Prof. Code § 17200 prohibits any “unlawful, unfair or fraudulent business act or practice.”

91. The acts and practices of Defendants as alleged herein constitute “fraudulent” business acts and practices under the UCL in that Defendants’ conduct is false, misleading, and has

1 a tendency to deceive the Class and the general public.

2 92. Defendants' conduct in using elasticity of demand as a rating factor to inflate auto  
3 insurance premiums for its price inelastic customers was likely to deceive, and did in fact deceive,  
4 Plaintiffs and the Class.

5 93. Defendants' conduct in failing to disclose to Plaintiffs and members of the Class  
6 their use of elasticity of demand as a rating factor to inflate auto insurance premiums for price  
7 inelastic policyholders was likely to deceive, and did in fact deceive, Plaintiffs and the Class.

8 94. Plaintiffs and the Class members have suffered injury in fact and have lost money as  
9 a result of Defendants' fraudulent business acts or practices.

10 95. The above-described fraudulent business acts or practices present a threat and  
11 likelihood of harm and deception to members of the Class in that Defendants have systematically  
12 perpetrated the fraudulent conduct upon members of the public by engaging in the conduct  
13 described herein.

14 96. Pursuant to Business and Professions Code §§ 17200 and 17203 Plaintiffs seek an  
15 order providing restitution and disgorgement of all profits relating to the above-described  
16 fraudulent business acts or practices, and injunctive and declaratory relief as may be appropriate.

#### 17 **FOURTH CAUSE OF ACTION**

##### 18 **Unjust Enrichment**

19 97. Plaintiffs repeat, reassert, and incorporate the allegations contained in paragraphs 1-  
20 96 above as if set forth herein.

21 98. Defendants have been unjustly enriched at the expense of Plaintiffs and Class  
22 members as a result of their conduct as alleged above.

23 99. Defendants have wrongfully and unjustly collected higher auto insurance payments  
24 from thousands of insureds than they were entitled to by using elasticity of demand as a rating  
25 factor.

26 100. It would be inequitable to allow Defendants to retain these ill-gotten gains, and the  
27 Plaintiffs and Class members are entitled to restitution and/or disgorgement of all revenues  
28

1 obtained by Defendants as a result of their unlawful conduct.

2 **FIFTH CAUSE OF ACTION**

3 **Violation of Cal. Ins. Code § 1861.10**

4 101. Plaintiffs repeat, reassert, and incorporate the allegations contained in paragraphs 1-  
5 100 above as if set forth herein.

6 102. Cal. Ins. Code sec. 1861.10(a) authorizes “any person” to “initiate...any proceeding  
7 permitted...pursuant to” Chapter 9 of the Insurance Code, and to “enforce any provision of” Article  
8 10 of Chapter 9 of the Insurance Code.

9 103. Plaintiffs are persons initiating a proceeding permitted pursuant to Chapter 9 of the  
10 Insurance Code within the meaning of Section 1861.10(a) because Section 1861.03(a) of Chapter 9  
11 of the Insurance Code makes the unfair business practices laws applicable to the business of  
12 insurance.

13 104. Section 1861.02(a)(4) of the Insurance Code prohibits the use of rating factors that  
14 do not have a substantial relationship to risk of loss, and it is a provision of Article 10 of Chapter 9  
15 of the Insurance Code. Plaintiffs are persons seeking to enforce that provision within the meaning  
16 of Section 1861.10(a).

17 105. Plaintiffs and the Class members have suffered injury in fact and have lost money as  
18 a result of Defendants’ use of elasticity of demand as a rating factor in violation of Section  
19 1861.02(a)(4).

20 106. Pursuant to Insurance Code Section 1861.10(a) and (b), Plaintiffs seek an order  
21 providing restitution and disgorgement of all profits resulting from Defendants’ use of elasticity of  
22 demand as a rating factor, injunctive and declaratory relief as may be appropriate, and attorneys’  
23 fees and expenses.

24 ///

25 ///

26 ///

27 ///

1 **PRAYER FOR RELIEF**

2 **WHEREFORE**, Plaintiffs, individually and on behalf of the Class, pray for judgment in favor  
3 of Plaintiffs and the Class and against Defendants as follows:

- 4 A. Finding that this action satisfies the prerequisites for maintenance as a class action  
5 under California Code of Civil Procedure Section 382 and certifying the Class  
6 defined herein;
- 7 B. Designating Plaintiffs as representatives of the Class and their counsel as class  
8 counsel;
- 9 C. Declaring Defendants' use of elasticity of demand as a rating factor to be unlawful  
10 and granting equitable and/or injunctive relief;
- 11 D. Awarding Plaintiffs and members of the Class their compensatory damages in an  
12 amount to be determined at trial;
- 13 E. Disgorgement of, restitution of, and/or imposing a constructive trust upon, the ill-  
14 gotten gains derived by Defendants from their unjust enrichment;
- 15 F. Plaintiffs' reasonable attorneys' fees and non-taxable expenses;
- 16 G. Plaintiffs' taxable costs;
- 17 H. Pre- and post-judgment interest at the maximum rate permitted by applicable law;  
18 and
- 19 I. Granting such further relief as the Court deems just.

20 **JURY DEMAND**

21 Plaintiffs demand a trial by jury on all issues so triable.

22 Dated: October 29, 2015

SCHONBRUN SEPLOW HARRIS &  
HOFFMAN LLP

23  
24 By: 

25 Wilmer J. Harris [SBN 150407]  
Isabel M. Daniels [SBN 270887]  
26 715 Fremont Ave., Suite A  
South Pasadena, CA 91030  
27 Telephone: (626) 441-4129  
Facsimile: (626) 283-5770

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

BERGER & MONTAGUE, P.C.  
Shanon Carson [PA S.B. #85957]  
Peter Kahana [PA S.B. #33587]  
Jeff Osterwise [PA S.B. #201859]  
1622 Locust Street  
Philadelphia, PA 19103  
Telephone: (215) 875-3000  
Facsimile: (215) 875-4613

TYCKO & ZAVAREEI LLP  
Jonathan K. Tycko [D.C. S.B.#445851]  
Andrea R. Gold [D.C. S.B. #502607]  
2000 L Street NW, Suite 808  
Washington, DC 20036  
Telephone: (202) 973-0900  
Facsimile: (202) 973-0950

MEHRI & SKALET PLLC  
Jay Angoff [D.C. S.B. #248641]  
Cyrus Mehri [D.C. S.B. #420970]  
Steven Skalet [S.B. #359804]  
1250 Connecticut Ave. NW, Suite 300  
Washington, DC 20036  
Telephone: (202) 822-5100

KLAFTER OLSEN & LESSER, LLP  
Seth Lesser [N.Y. S.B. #2265585]  
Kurt Olsen [N.Y. S.B. #445279]  
Two International Drive, Suite 350  
Rye Brook, NY 10573  
Telephone: (202) 261-3553

*Attorneys for Plaintiffs*

**EXHIBIT A**

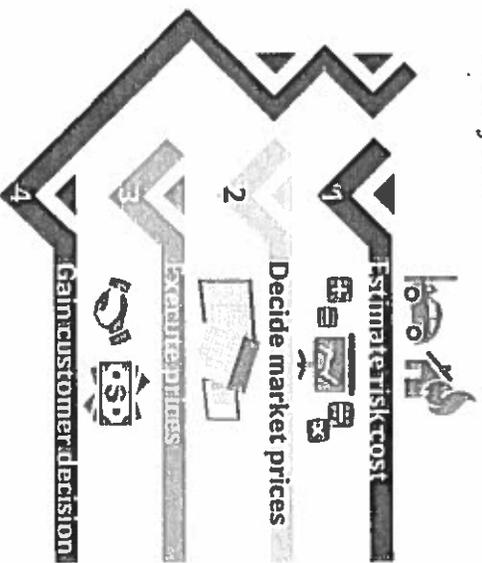
INSURANCE PRICING  
AND  
CUSTOMER VALUE OPTIMIZATION

EARNIX

# ONE-STOP SOLUTION FOR INSURANCE PRICING AND CUSTOMER VALUE OPTIMIZATION

Earnix provides an integrated suite of software solutions that enable insurers to optimize pricing and maximize customer value across auto, home, commercial, and other product lines.

Used by leading insurers worldwide, Earnix solutions deliver proven and measurable bottom-line results year after year.



End-to-End Closed-Loop Pricing Process

## A Single Platform for the Entire Pricing Process

Earnix is a one-stop solution that simplifies the entire pricing process, helping insurers increase business agility by overcoming the constraints of existing legacy systems, removing the need for extensive IT support, and accelerating time-to-market of new products and prices.

## Industry-Leading Risk Cost Modeling

Earnix Risk Premium Module (RPM) provides state-of-the-art statistical tools that empower actuaries and analysts to generate the most accurate and robust risk pricing models. Built-in visualization capabilities make it easy to analyze these models for selection of the best pricing strategy.

## Price Optimization: Elevating Profit and Growth

Earnix best-in-class analytics and patent-awarded optimization technology empower insurers to implement pricing strategies that go beyond the traditional risk cost pricing, incorporating demand elasticity models to maximize profit and growth objectives.

## Cloud-Ready Enterprise Architecture

Whether deployed on premise or in the cloud, Earnix can churn millions of pricing transactions per day, either in batch or real-time environment. It is also easily integrated with existing enterprise systems, delivering the power of optimization in a seamless fashion to every point of customer interaction through all distribution channels.

# EARNIX

INSURANCE PRICING AND CUSTOMER  
VALUE OPTIMIZATION

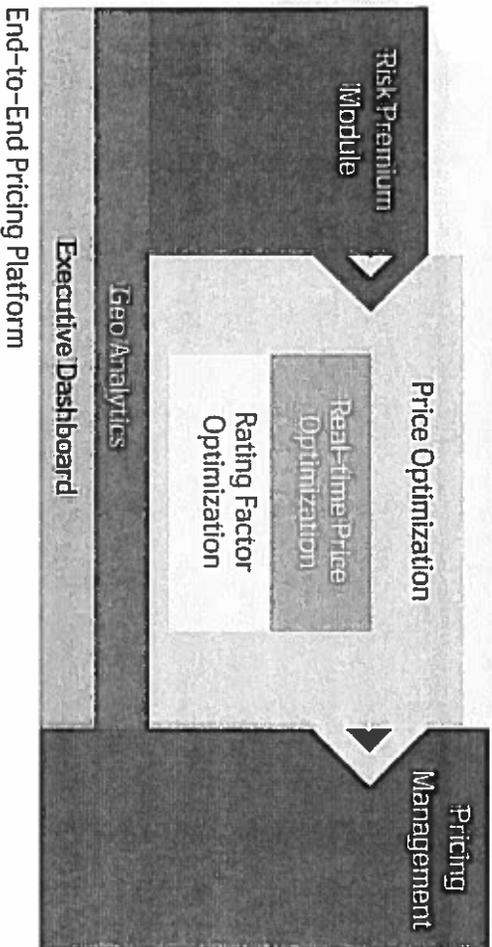
## A Modular Solution that Allows You to Think Big, Yet Start Small

Earnix provides a comprehensive pricing platform that empowers insurers to transform their pricing processes from A to Z

Rather than a "big bang" approach which can be disruptive to the business, the modular architecture of Earnix and flexible deployment

options on premise and in the cloud allow you to quickly get started and grow the solution footprint over time.

### Cloud implementation option



### Earnix Modules

- ❖ Risk Premium
- ❖ Price Optimization
- ❖ Real-time Price Optimization
- ❖ Rating Factor Optimization
- ❖ Pricing Management
- ❖ Executive Dashboard
- ❖ Geo-analytics

# EARNIX

INSURANCE PRICING AND CUSTOMER  
VALUE OPTIMIZATION

## Proven Solution, Proven Results

Using the Earnix solutions, insurers worldwide are able to achieve measurable business results that include:

- ✦ Boosting profitability by up to 5% of Gross Written Premium - translating into over 10% increase to the bottom line
- ✦ Higher customer lifetime value
- ✦ Increasing customer acquisition rate
- ✦ Improving customer retention
- ✦ Optimizing the customer mix
- ✦ Accelerating time-to-market of new offers and prices

### Sample Customer Results

Company Profile	Business Challenges	Results Delivered by Earnix Solutions
Global Personal Lines Insurer	Address a rapidly softening market and aggressive pricing strategies of competitors leading to a 10% drop in market prices	Increased retention rates while increasing profits by 3.5% of Gross Written Premium (GWP)
National Car Insurer	Increase profitability of renewals while maintaining volume of existing policies in a strictly regulated environment	Profit increase of 2.8% of Gross Written Premium (GWP) while complying with regulatory requirements
UK Insurance Broker	Achieve higher growth and profitability in a highly competitive market	Profit increase of 3% of Gross Written Premium (GWP) with the first-year of implementation of 10% increase in earnings per customer
European Direct Insurer	Respond to competitive pressure resulting in increased discounting and reduced profitability.	25% reduction in discounted premiums while maintaining customer retention goals in an increasingly competitive market
UK Bancassurer	Reduce attrition rates and mid-term cancellations	Maintain retention rates while increasing profits by 2.1% of Gross Written Premium (GWP)
US Insurer	Grow profitability of a large multi-state auto book in highly regulated markets	Increased profits by 1.8% of GWP while maintaining retention, enabling top management with better understanding of pricing alternatives
European Insurer	Grow the company book amid a softening market, while optimizing customer Lifetime Value	Grow book by 10% over 3 years, while growing profits by 15% of GWP
EMEA Direct Insurer	Increase cross-sale rates from auto to home policies	Increased cross-sale success rate by 30%

# EARNIX

INSURANCE PRICING AND CUSTOMER VALUE OPTIMIZATION

# RISK PREMIUM MODELING

# EARNIX

INSURANCE PRICING AND CUSTOMER VALUE OPTIMIZATION

# RISK PREMIUM MODELING

**Model Risk.**  
**Predict Results.**  
**Evaluate Alternatives.**  
**Faster. Easier.**  
**More Accurately.**

**Better Understand Risk**  
Earnix Risk Premium Module (RPM) provides state-of-the-art statistical tools that enable actuaries and analysts to build accurate and robust risk pricing models. Built-in visualization capabilities make it easy to analyze and compare these models for selection of the best pricing strategy.

**Simulate Results**  
Earnix RPM allows you to easily simulate changes to existing tariffs and rating tables and conduct what-if analysis to predict the results of new pricing strategies.

**Combine Risk and Behavior Analysis**  
Earnix RPM is designed to work in tandem with Earnix Optimizer, providing insurers with a combined risk and behavioral profile for a 360-degree view of the customer.

**Make it Easier**  
The Earnix user interface provides a single point of access to all the functionality you need so you can quickly and intuitively build your models, evaluate results, and optimize your pricing decisions all in one place.

## How is Earnix Risk Premium Module Different?

### The Most Powerful Tools of the Trade

Generalized Linear Modeling (GLM), Generalized Additive Models (GAM) based on Smoothing Splines, and Regression Trees make actuarial work more accurate, faster, and easier.

### Easy to Use and Visualize

Intuitive user interface enables data analysis with minimal hassle. A wide range of charts with drill-down options help analyze and compare models.

### Integrates with Your Pricing Process

Built-in pricing execution capabilities and Service Oriented Architecture that enables easy integration with existing systems make Earnix RPM a vital component of your end-to-end pricing process.

### A Collaborative Tool for Your Team

Unlike desktop-based tools, Earnix provides a multi-user solution that empowers you to effortlessly collaborate with your team.

### Scales to Meet Your Needs

Configurable server architecture supports parallel processing on several CPUs to provide fast and reliable results.

# EARNIX

RISK PREMIUM  
MODELING

## Risk Premium Analysis and Pricing Made Easy

### Simplified Data Preparation

Prepare data for modeling using rich and flexible data manipulation tools with advanced graphing. Easy import/export data to/from your data store or statistics application (e.g. SAS).

### Advanced Smoothing Spline Regression

Fit splines using advanced cross-validation techniques to model non-linear and geographic relationships with faster and more accurate modeling.

### Effortless Model Comparison

Quickly zero-in on your best options using intuitive numerical and graphical indicators to easily compare models.

### Flexible Rating Structures

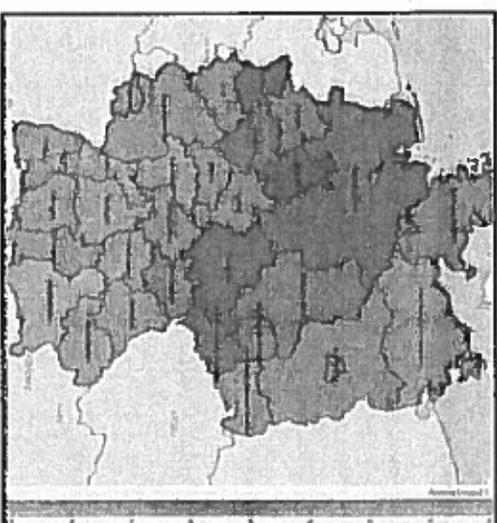
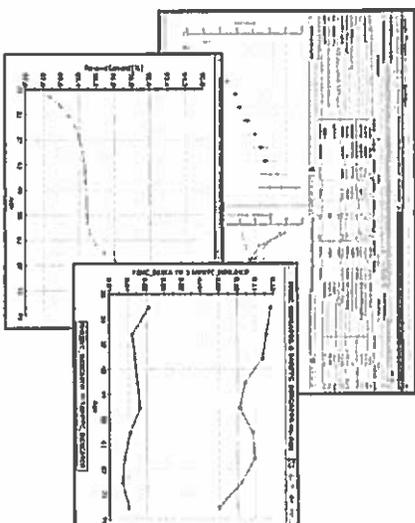
Translate model output into rating tables with a push of a button to promptly create even the most complex rating structures.

### Powerful Visualization and Graphing

Analyze models with easy-to-use graphic outputs and drill-down capabilities. Use your corporate business intelligence tools to create additional customized graphs and reports based on Earnix RPM data.

### Integrated Geo-Analytics

Add the geographic dimension to your risk premium modeling with spatial data embedded in your loss-cost analytics. The integrated state-of-the-art mapping interface enhances the accuracy of your analysis and simplifies the communication of its results.



# EARNIX

RISK PREMIUM  
MODELING

# PRICE OPTIMIZATION

# EARNIX

INSURANCE PRICING AND CUSTOMER VALUE OPTIMIZATION

# PRICE

## OPTIMIZATION

Auto, Home, Commercial  
Other Insurance Lines.

### Why Optimize?

In today's competitive insurance market, traditional ratemaking based on risk and cost alone is no longer sufficient.

The answer to the needs of insurers in the customer-driven age is incorporating demand and risk cost considerations to optimize pricing and customer value.

Earnix Optimizer enables insurers to optimize pricing decisions, maximize customer lifetime value, and ultimately meet and exceed growth and profitability goals.

### Optimize Pricing Decisions, Maximize Customer Value

- ✦ Offer each customer the right products and prices to maximize customer lifetime value
- ✦ Transform the vision of customer-centricity into a set of actions and processes
- ✦ Better meet customer needs to outpace the competition with higher profitability and growth

### Ensure Regulatory Compliance

- ✦ Define prices and policies that maximize business results while maintaining regulatory compliance
- ✦ Optimize rating factors used in regulated pricing formulas to increase customer value within regulatory guidelines

### Improve Retention & Renewals, Generate New Business

- ✦ Target the optimal customer mix to match your growth and profit objectives
- ✦ Attract profitable new business with best-fit products and prices tailored to each customer
- ✦ Protect your existing customer base while preventing profit erosion with optimized renewal offers

## How Does It Work?

The Power of Optimization at the Fingertips of Every Business User

Using a patent-winning methodology and technology, Earnix brings a scientific approach to customer value and pricing optimization.

You Are in Control

Unlike black box optimization solutions, Earnix puts your actuaries and pricing managers in control of the parameters that drive pricing goals and strategies, eliminating long-term reliance on external resources.

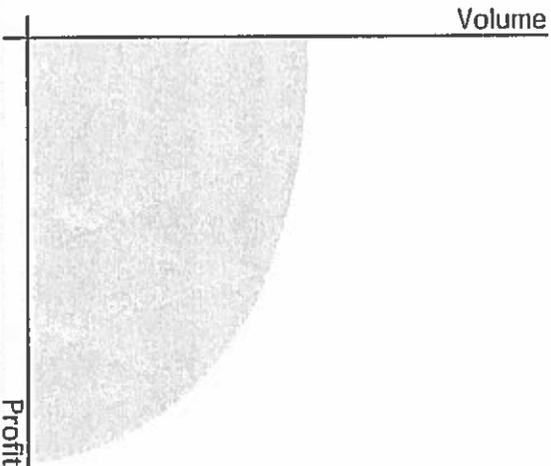
Keeping the enormous complexity involved in the underlying computation well under the hood, Earnix Optimizer features a simple user interface that provides business users across the organization with unparalleled access to the power of optimization.



**Under the Hood**  
Optimizing rates for millions of customers is not a trivial task to say the least. Each potential price point requires an understanding of numerous variables, how they are impacted by your constraints, and how they affect the results. Put together, it is easy to see how each pricing decision requires the comparison of a vast set of alternatives. It is the sophistication of the algorithms that allows Earnix Optimizer to perform these massive calculations and compare all relevant permutations with the speed and accuracy that empower your team to keep pace with the demands of your market.

## What can you do with Earnix Optimizer?

- ✦ Set your optimization goals to reflect your business performance objectives: increasing retention, market share and gross written premium, maximizing profit margins, or any combination of these goals
- ✦ Analyze the price elasticity of each customer profile and uncover the **efficient pricing frontier for each product in your portfolio**
- ✦ Conduct "what if" scenarios to compare how different rate proposals will affect written premiums, loss ratios, and other KPIs
- ✦ Simulate changes to market conditions, risk characteristics, and competitor pricing to predict the impact on your business and preempt the competition
- ✦ Optimize rates subject to a broad and dynamic set of regulatory and business constraints
- ✦ Maximize Customer Lifetime Value using Earnix patented methodology and technology
- ✦ Monitor and adjust your pricing strategies based on real results from the field so you are never out of touch with the market



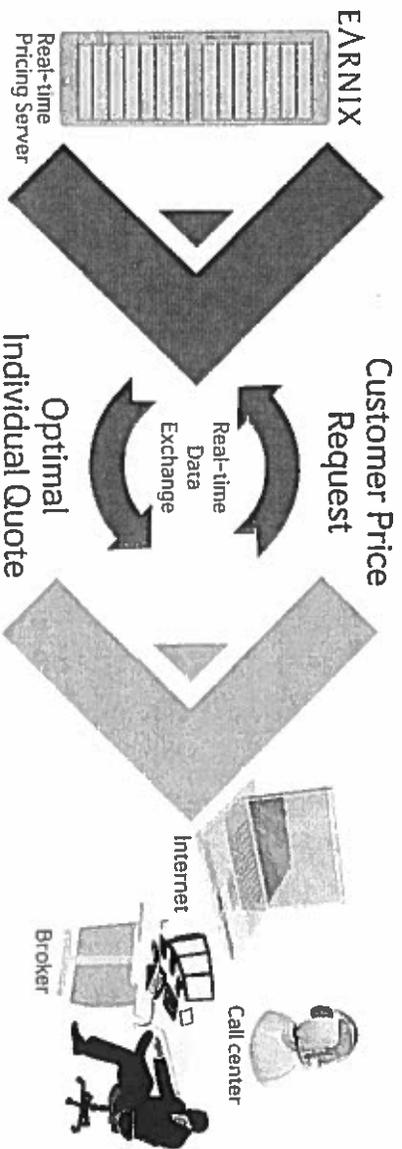
**REAL-TIME  
PRICE OPTIMIZATION**

**EARNIX**  
INSURANCE PRICING AND CUSTOMER VALUE OPTIMIZATION

# REAL-TIME PRICE OPTIMIZATION

Real-time Price Optimization enables insurers and intermediaries to step up to the requirements of the competitive and rapidly expanding online insurance marketplace.

Earnix Optimizer serves as a real-time engine that delivers instant optimized price quotations directly to the point of customer interaction via the Internet, call center, or any proprietary system.



## Millions of Quotations per Day, Optimized

Built to scale up to the most demanding online environment, Earnix Optimizer is capable of optimizing millions of quotations daily without compromising on the powerful capabilities supported in batch optimization.

## Instant Response, Personalized to Each Customer

When shoppers are ready to buy, they have little tolerance to incomplete information or mismatched offers. With Real-time Price Optimization, insurers can instantaneously issue online offers and price quotations that are optimized for each customer based on their risk and behavioral profiles.

## Keeping Your Finger on the Pulse of the Market

Earnix Optimizer continuously allows you to analyze customer acceptance of price quotations issued, so you can utilize this constant stream of real-time feedback data to promptly recalibrate your pricing strategies in and response adjust to market dynamics.

# EARNIX

REAL-TIME  
PRICE OPTIMIZATION

**RATING FACTOR  
OPTIMIZATION**

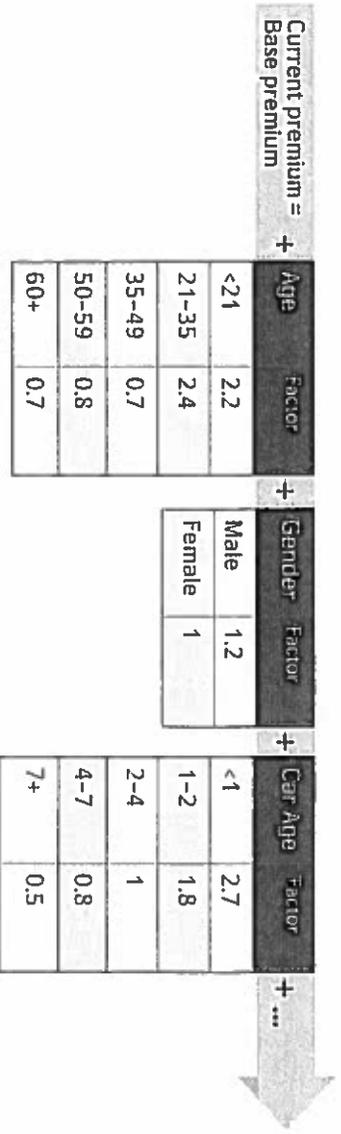
**EARNIX**  
INSURANCE PRICING AND CUSTOMER VALUE OPTIMIZATION

# RATING FACTOR OPTIMIZATION

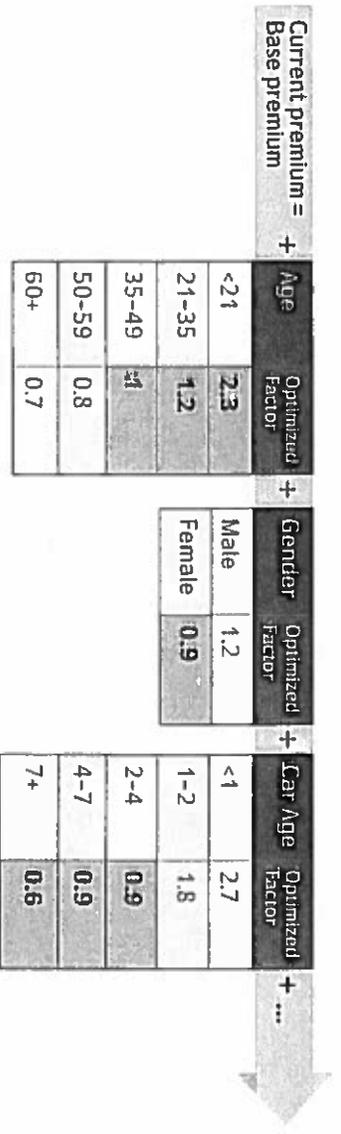
In markets where regulation require prices to follow a rating factor structure, the Earnix Rating Factor Optimization module allows insurers to optimize prices offered to customers while maintaining regulatory compliance.

While some insurers have attempted to optimize regulated prices by reverse-engineering rating factors, this approach has proven to be extremely time-consuming and failed to deliver the expected results.

In contrast, **Earnix directly optimizes the rating factors**, providing your team with new factors that can be uploaded into your existing table structure.



## EARNIX OPTIMIZER



PRICING  
MANAGEMENT

**EARNIX**  
INSURANCE PRICING AND CUSTOMER VALUE OPTIMIZATION

# PRICING MANAGEMENT

Control.  
Automate.  
Collaborate.

The Earnix Price Execution module streamlines the entire price lifecycle management, compressing the lag time for rolling out new prices from months to days.

Put Your Pricing Team in Control  
Earnix provides your team with a centralized point of control over all the steps involved from the decision on a new pricing strategy to the availability of new prices in the field:

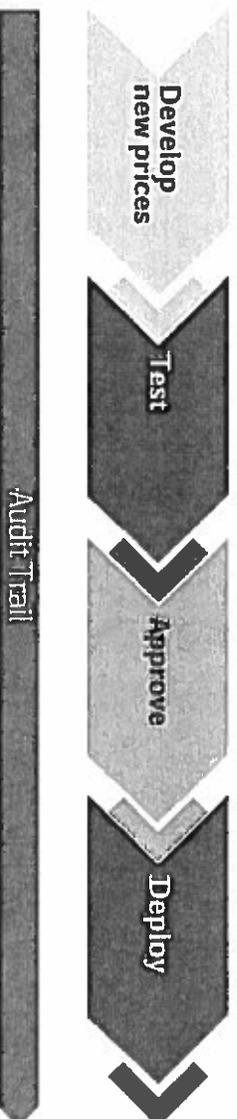
- ✚ Developing of new pricing strategies and the resulting premiums
- ✚ Testing of the new pricing configuration for any errors and regulatory compliance
- ✚ Deployment of the new prices to the production environment

Automate Processes, Minimize IT Resource Requirements  
The Earnix Price Execution module automates the management and transition of pricing versions through the analytical, testing, and production environments, eliminating manual processes that required heavy involvement of an often time-strapped IT support team.

- ✚ Automated testing and verification of new pricing strategies according to user-defined criteria
- ✚ Automated activation of new prices based on user-defined approval rules and authorities
- ✚ Automated real-time notifications that keep all stakeholders informed when new prices are tested and rolled out to the field

## Collaboration

Actuaries... R&D Team... Pricing Team... Product/State Managers...



## Collaborate Across Functions

Using the Price Execution module, all stakeholders can closely collaborate in the pricing decision and approval process. To enable users across the organization, Earnix provides robust access control at the product, project, and modeling levels, as well as a complete audit trail of all price testing and deployment events.

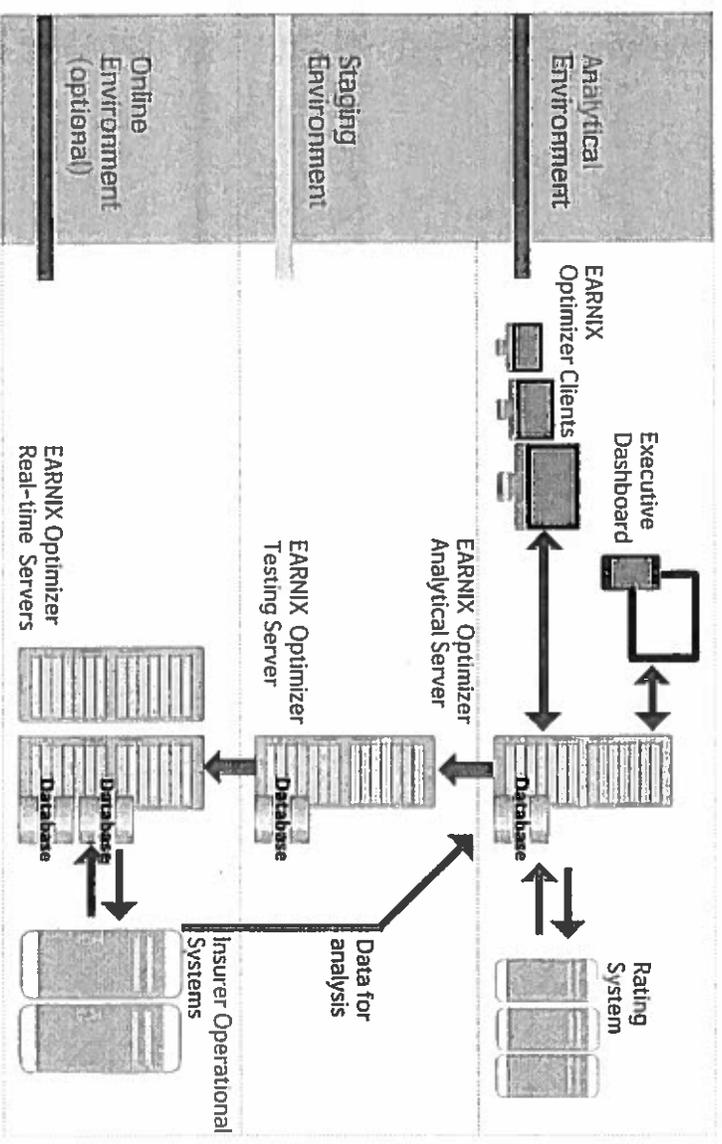
ARCHITECTURE, DEPLOYMENT  
AND INTEGRATION

**EARNIX**

INSURANCE PRICING AND CUSTOMER VALUE OPTIMIZATION

# SOLUTION ARCHITECTURE

Earnix Optimizer is a packaged enterprise software product used by many of the leading insurers and banks worldwide. The product is regularly enhanced and updated according to a roadmap created with constant customer input, allowing your organization to keep up with the latest pricing management and optimization technology while containing your Total Cost of Ownership (TCO). Earnix typically releases one new version each year, with cumulative patch releases available at shorter intervals.



**The Earnix Enterprise Platform**  
 The Earnix Optimizer platform provides an analytical application used by pricing and product professionals, as well as an optimization engine that delivers

real-time price recommendations to your existing pricing and customer-facing applications.

# EARNIX

ARCHITECTURE, DEPLOYMENT AND INTEGRATION

## Deploying Earnix in Your Organization

**Earnix Optimizer deployment typically consists of three identical instances of the software.**

capabilities allowing you to load the server with simulated pricing requests and automatically verify the results according to your predefined criteria.

Integrating Earnix Optimizer into your SOA environment is a simple matter via industry-standard SOAP web services (XML requests) or a published RMI/IIOP interface.

### I. Analytical

The Analytical environment provides actuaries, pricing experts, as well as product and territory managers with the tools they need to import data sets extracted from operational systems; create predictive statistical models; optimize prices; and monitor actual results against prior predictions.

### III. Real-time (optional)

The Real-time environment delivers optimized prices to your existing operational systems such as consumer self-service Internet portals, call center and CRM applications, and Policy Renewals systems.

Industry Standard, Simple to Integrate

Earnix Optimizer is 100% J2EE compliant, using IBM WebSphere Application Server with either a DB2 or Oracle database. Supported server operating systems include all recent versions of IBM AIX, Linux, and MS Windows. Client applications are written with WebSphere Application Client software tools and can run on Windows XP, Vista, or Windows 7 PCs.

### II. Staging

(pre-production testing)

The Staging environment is used as a pre-production area in which new models being released by the pricing team undergo final testing prior to going live. Earnix provides advanced testing

Scalable to Meet Your Growing Needs

Earnix Optimizer's configurable server architecture enables the processing of multiple threads of business logic on several CPUs in parallel, installed on one or more physical or virtual server machines. The result is a highly scalable solution that delivers millions of optimized price quotes per day in live production environments around the world.

## Cloud-based Option: On-Demand Pricing Power

Utilizing the Earnix cloud solution, you can quickly bypass any IT infrastructure limitations to instantly make the solution available to your pricing teams across the organization.

### Quick Deployment with Minimal IT Resources

With no servers to deploy in your data centers, your Earnix solution can be up and running in no time, even when your IT resources are maxed out with their day-to-day tasks.

### Cost-effective Computing Power Scalability

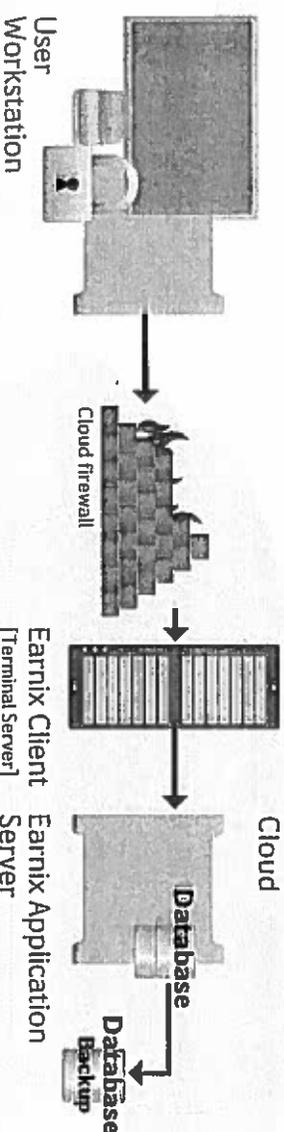
Using the elastic cloud infrastructure, you only pay for the computing power, you need, making more computing resources available as you expand the use of Earnix Optimizer.

### On-demand Rollout and Instant Access to Pricing Analytics across Products, Territories, Departments

Rolling out the solution to additional users and departments becomes a matter of decision, as authorized users anywhere in the world are capable of accessing Earnix Optimizer any time from directly from their workstation can access Earnix Optimizer anytime directly from their workstations.

### Closer Collaboration with Earnix and Partner Pricing Experts

Hosting your solution in the cloud allows the optimization experts from Earnix or the partner organization you are working with to easily access the system and lend a hand when needed.



# WORKING WITH EARNIX

Earnix was founded by insurance executives who sought a practical solution to the limitations of traditional pricing methods used by financial services providers. Joining forces with experts in statistics, econometrics, and optimization technology, they formed Earnix to help insurers improve performance through better customer segmentation, advanced demand analysis, and customer value optimization.

Following a proven methodology, the Earnix team will work with your organization to ensure a successful implementation that will have lasting impact on your business. The Earnix platform is open and easy to work with, so you can utilize both internal and third party resources for parts or even the entire implementation process. The Earnix team is available to assist as needed, from playing a supporting role to your team to providing complete implementation services for a turnkey solution.

## Data Preparation

Working with your team, we will help you get your data ready to support the demand analysis and price optimization functions within Earnix Optimizer.

## Demand Modeling

Using the available data, we will help your team use Earnix Optimizer's advanced analytical capabilities to establish the appropriate customer demand models and start optimizing your prices.

## Deployment and Integration

Earnix can help you fine-tune your pricing strategies, set them up for your day-to-day use, and integrate Earnix Optimizer with your operational IT systems.

## Training

While the software is easy-to-use, we will train your staff and provide system documentation to ensure you maximize the value of the solution.

## Support

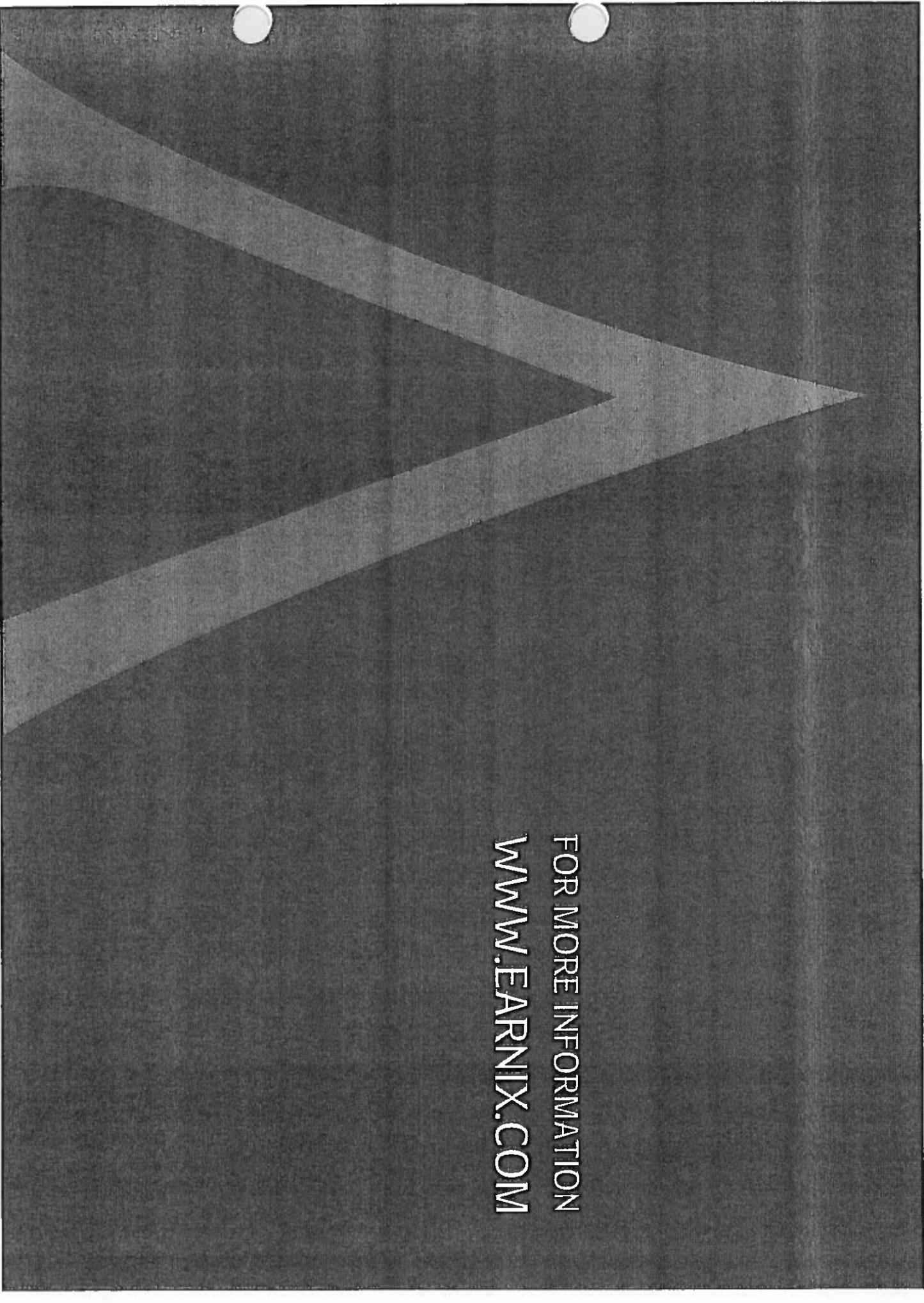
To ensure your business continues to maximize the benefits from Earnix Optimizer, we are committed to providing ongoing technical support and business process assistance.

## Our Partners

In addition to the services offered directly by Earnix, we partner with leading consulting and technology firms to offer additional options for supporting the implementation of the Earnix solution in your organization.

# EARNIX

ARCHITECTURE, DEPLOYMENT  
AND INTEGRATION



FOR MORE INFORMATION  
[WWW.EARNIX.COM](http://WWW.EARNIX.COM)

EARNIX

# **EXHIBIT B**

# EARNIX

Integrated Pricing & Customer Analytics



## Price Optimization in North America: Myth vs. Reality

SEPTEMBER 2012

## **Background**

US airlines were early adopters of price optimization who over thirty years ago started experimenting with the concept of revenue management. Their success led to the rise of new pricing strategies in many industries including automotive, retail, telecommunications, manufacturing, and financial services.

In the last decade, the opportunities for pricing optimization have become more widespread; a result of the rise of e-commerce and the vast amounts of newly available customer behavior data that comes with it.

The use of price optimization strategies for personal lines insurance started out over a decade ago in Europe and is currently making rapid headway in North America as well.

Insurance price optimization combines the best of each of the three traditional pricing approaches (cost plus, value-based, and market-based). It incorporates data related to direct operating costs, consumer behavior, and the competitive environment to determine the best pricing strategy in order to achieve specific business goals.

The financial benefits of price optimization can be significant. Companies that adopt optimization as a pricing strategy can realize improvement of 1-4 points in the combined ratio and/or as much as a 10-20% increase in new business conversion rates.

As we talk with companies in North America about price optimization, it is clear that many have misconceptions about the strategy. Based on our daily interactions with North American insurers, we can shed light on these misconceptions and provide greater clarity on how price optimization is used by North American insurers.

*Our experience shows that improvements in business performance will be achieved even in highly-regulated markets.*

***Myth #1: The regulatory environment prohibits the use of price optimization***

The most common misconception about price optimization is that it violates regulations. Our experience working with US and Canadian insurers shows that is not the case. Moreover, the filing process is typically identical whether a company utilizes price optimization or not.

When rates are optimized in a given state or province, it is up to the company to determine which rating variables are optimized and the extent to which rates can be adjusted from loss cost or expense estimates. Most of the time, the changes introduced by price optimization tend to be small. These small changes, typically in the range of +/- 2-3%, can have a big effect on the financial outcomes of one's book when applied across a large number of variables, but in most cases have no regulatory implications.

***Myth #2: There is no financial benefit from price optimization in highly-regulated markets***

Another common misconception is that there is little financial benefit of price optimization in highly-regulated markets. While greater benefits can be achieved when pricing decisions are not constrained by a rating algorithm or tight regulations, our experience working with insurers across all regulatory environments shows that improvements in the combined ratio and/or new business conversion will be achieved, even in highly-regulated markets. Of note, such improvements are greater when the constraints (regulatory and others) are tightly integrated into the optimization process, allowing the organization to find with confidence the best case scenarios within the boundaries of compliance.

*As few as fifty to a hundred thousand observations can provide a large enough sample for effective customer demand models.*

***Myth #3: Robust demand models cannot be built without price testing***

Key to any price optimization strategy is the understanding of how customers respond to price changes. Price testing is a common practice for measuring the effect of rate changes in places with limited rate regulation, such as most European markets. In the UK, for example, companies can randomly change prices for a small portion of their book and observe the effect of these rates changes on the behavior of consumers in the test group. In the US and certain Canadian provinces, insurers are not allowed to do price testing. That does not mean, however, that insurers cannot build robust demand models to estimate the effect of rate changes.

Most companies have historical data that can be used to measure reaction to rate changes by both existing and prospective customers (i.e. did they accept the offer or reject it) at different points of time. Analysis of the differences in conversion rates demonstrated in prior rate changes can generally provide enough data to construct robust price demand models that can be used for rate optimization.

***Myth #4: Companies need huge numbers of observations to build robust demand models***

While the common practice in the industry is to use a large number of observations over a few years to build robust loss cost models, our worldwide experience shows that in most cases as few as fifty to a hundred thousand observations provide a data sample large enough to construct effective models of consumer demand. This is good news for smaller companies that don't have enormous books as they can still enjoy the benefits of price optimization. These models can be built on a countrywide basis while including state specific variables to capture any differences among the states.

A related myth is that companies must have perfect data, and particularly perfect competitor data, in order to optimize their own rates. Although competitor data can be helpful (especially for new business models), companies can build effective models of consumer demand without it. As previously described, it is possible to build a robust pricing optimization model based on observations from prior price changes. Naturally if a company has competitor data and is confident in its accuracy, the model's robustness can be improved with this information.



*A substantially higher lift can be achieved by optimizing at the individual state and factor level.*

***Myth #5: Customer demand does not change over time***

The reality is that customer behavior does change over time, and so do measures of customer demand. Reasons for changes in measures of customer price elasticity or customer behavior can be macro-economic trends, media influence, and the emergence of new communication modalities. If such changes are not constantly monitored and incorporated into the pricing models, a carrier could be late in reacting to market dynamics and fall behind the competition.

Insurance companies should understand that price optimization is not a one-time event but a routine part of doing business. Companies implementing pricing optimization need to establish repeatable processes that allow them to monitor when results deviate from expectations, discover what caused these deviations, and modify their models and pricing strategies in responses to changes in consumer behavior.

***Myth #6: Consumer demand is best incorporated in high level product design, not at the individual state and factor level***

Changing product design based on knowledge of customer behavior is valuable and important, as it will likely produce positive financial outcomes. However, limiting the changes only to high level product design is financially inefficient. Companies can get a substantially higher lift by optimizing at the individual state and factor level as well, resulting in 1-4 point improvement in the combined ratio or 10-20% improvement in new business conversion. Most notably, optimization can address the differences in behavior between new business and renewal customers, while adhering to all regulatory requirements.

It is also important to note that there is no need to change the product design or introduce new rating variables to reap the benefits from pricing optimization. Rather, one can perform the optimization under the current rate order. At the same time, optimization can certainly be used for an effective introduction of new rating variables or an evaluation of changes to product design.

*Newer technologies that enable rating factor optimization remove much of the complexity from the process.*

***Myth #7: It is too cumbersome and time-consuming to optimize at the factor level***

This myth is rooted in the difficulties companies have experienced attempting to optimize rating factors by reverse-engineering after solving for the direct price. This method is indeed extremely time-consuming, and can only be executed by specialists, keeping the business managers from taking an active role in the process. Newer technologies that enable direct rating factor optimization remove much of the complexity from the process, allowing business users to directly optimize prices at the factor level and thus enabling cross-team collaboration.

***Myth #8: Optimization is an all or nothing proposition***

While we believe the financial benefits will ultimately drive companies towards business-wide adoption of price optimization, most insurers deploy optimization in a stepwise fashion. Typically, companies start with a pilot project, one offering (typically auto) and one state, which provides a realistic measure of the benefits that can be realized as well as a good sense of the effort required. Following the pilot and verification of results through a field test, a rollout strategy is then developed and implemented.

When thinking about the best place to start, companies should look for a market that is large enough to provide credible results. It is also preferable to choose a market that is relatively stable, which allows the company to better isolate the effect of price optimization as opposed to other market factors. Last but by no means least, it is important to start with a management team that is open to change and is excited for the opportunity to improve the existing process and business outcomes.

## **Conclusion**

Despite common misconceptions, price optimization is being tested and adopted as a pricing strategy in North America at a very rapid pace.

The adoption trends are analogous in many ways to the introduction of credit scoring in auto pricing. At first, most companies were skeptical. Those that were early to adopt the use of credit scoring gained a competitive advantage, and late adopters were hurt because of adverse selection. Within a few years, virtually every insurer was using credit information. We are seeing a similar trajectory in price optimization today.

Companies that are not focused on obtaining a better understanding of consumer behavior and incorporating this knowledge into their rate-setting process will be at a substantial competitive disadvantage.

## **About Earnix**

Earnix Integrated Pricing and Customer Analytics™ software empowers financial services companies to predict customer demand and its impact on business performance, enabling the alignment of pricing and products with changing market dynamics. Earnix combines risk and demand modeling with real-time connectivity to core operational systems, bringing the power of analytic-driven decisions to every customer interaction in any regulatory environment. Leading banks and insurance companies rely on Earnix solutions to optimize the prices of deposits, loans, and policies, delivering greater value to customers and higher returns to shareholders.

## **Disclaimer and Trademark Notices**

This report is provided by Earnix Ltd. ("Earnix"). Earnix and other Earnix products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of Earnix in Israel and in several other countries. All other product and service names mentioned are the trademarks of their respective companies.

### ***DISCLAIMER OF WARRANTY***

Earnix makes no representation or warranties, either express or implied by or with respect to anything in this document, and shall not be liable for any implied warranties of merchantability or fitness for a particular purpose or for any indirect special or consequential damages.

### ***COPYRIGHT NOTICE***

No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, photocopying, recording or otherwise, without prior written consent of Earnix. No patent liability is assumed with respect to the use of the information contained herein. While every precaution has been taken in the preparation of this publication, Earnix assumes no responsibility for errors or omissions. This publication is subject to change without notice.

Copyright © Earnix. All rights reserved.

**EARNIX**  
Integrated Pricing & Customer Analytics

### **US Headquarters**

Earnix Inc.  
Rockefeller Center 7th Floor  
1230 Avenue of the Americas  
New York, NY 10020  
Tel. +1-646-756-2840

*Copyright 2012 Earnix Ltd. All rights reserved*

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

**PROOF OF SERVICE**  
**STATE OF CALIFORNIA, COUNTY OF LOS ANGELES**

I am a resident of the aforesaid county, State of California; I am over the age of 18 years and not a party to the within action; my business address is 715 Fremont Avenue, Suite A, South Pasadena, CA 91030.

On October 29, 2015, I caused the service of the following document(s) described as:

**FIRST AMENDED CLASS ACTION COMPLAINT FOR DAMAGES**

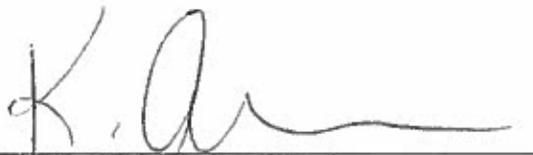
on all interested parties in this action by placing \_\_\_ an original or  a true copy thereof enclosed in sealed envelope addressed as follows:

**SEE ATTACHED SERVICE LIST**

[By MAIL] I caused such envelope to be deposited in the mail at South Pasadena, California. The envelope was mailed with postage thereof fully prepaid.

[By Electronic Mail] I caused the above to be transmitted electronically to the e-mail address(es) of the individual(s) listed above.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct. Executed on October 29, 2015, at South Pasadena, California.

  
\_\_\_\_\_  
Kristina Akopyan

SERVICE LIST

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

<p>Peter Kahana, Esq. pkahana@bm.net Jeff Osterwise, Esq. josterwise@bm.net BERGER &amp; MONTAGUE, P.C. 1622 Locust Street Philadelphia, PA 19103 Fax: (215) 875-4613</p>	
<p>Jonathan K. Tycko, Esq. jtycko@tzlegal.com Andrea Gold, Esq. agold@tzlegal.com TYCKO &amp; ZAVAREEI LLP 2000 L. Street, NW, Suite 808 Washington, DC 20036 Fax: (202) 973-0950 <i>Attorneys for Plaintiffs</i></p>	
<p>Jay Angoff, Esq. jay.angoff@findjustice.com Cyrus Mehri, Esq. Cyrus@findjustice.com MEHRI &amp; SKALET PLLC 1250 Conneticut Ave. NW, Suite 300 Washington, DC 2003 <i>Attorneys for Plaintiffs</i></p>	
<p>Seth Lesser, Esq. Seth@klafterolsen.com Kurt Olsen, Esq. KO@klafterolsen.com KLAFTER OLSEN &amp; LESSER, LLP Two International Drive, Suite 350 Rye Brook, NY 10573 <i>Attorneys for Plaintiffs</i></p>	
<p>Richard G. De La Mora, Esq. rdelamora@mail.hinshawlaw.com James C. Castle, Esq. jcastle@mail.hinshawlaw.com HINSHAW &amp; CULBERTSON, LLP 633 West Fifth Street, 47<sup>th</sup> Floor Los Angeles, CA 90071 Fax: (213) 614-7399 <i>Attorneys for Defendants</i> Farmers Insurance Exchange and Mid Century Insurance Company</p>	