SUMMARY

Auto insurance in California is governed by Proposition 103, a comprehensive system of insurance regulations. Prop 103 requires that insurers prioritize certain factors—including a driver’s safety record, total miles driven annually, and years of experience—in setting that driver’s insurance rates. California’s insurance scheme may be appropriate for human drivers, but will be difficult to extend to self-driving cars. In this paper, we discuss four potential areas of conflict between existing California insurance law and insurance needs for self-driving vehicles. We conclude with recommendations that could form the basis of a new insurance scheme tailored to such vehicles.

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1 Introduction

Automated vehicles (AVs) capable of full self-driving1 will soon reach the market. These vehicles are expected to be much safer than conventional (human-driven) vehicles. But AVs will still sometimes crash. Per-incident liability costs of AV crashes will likely be at least as large as the costs of human-driven crashes—and potentially larger, given the expensive sensors and other technologies built into AVs. For this reason, AVs insurance will be necessary.

Pricing AV insurance will be difficult. Insurers of non-automated vehicles rely on risk models powered by data collected from hundreds of millions of human-driven miles in order to accurately price insurance for human-driven vehicles. By contrast, despite major testing efforts by many AV manufacturers, the dataset of all self-driven miles is still quite small. There are also challenges to precisely estimating AV risk that will remain if and when datasets expand. Upgrading a particular vehicle with new software (and/or new updates to old software) could instantly and significantly reduce the crash risk of that vehicle. On the other hand, flaws in self-driving algorithms or hacking could create catastrophic liability scenarios.

AV insurers in California will face additional hurdles due to particular provisions of California’s intensive insurance regulation system. As a result of a 1988 voter initiative, Proposition 103: Insurance Rates and Regulation (hereafter “Prop 103”), California has the most regulated insurance market in the country. This initiative has benefited California drivers,2 but was not designed with self-driving cars in mind. Several provisions of Prop 103 work well under the assumption that all vehicles are driven by humans. But, as we discuss below, these provisions do not make sense for AVs.

The result is that California auto insurers may be constrained by Prop 103 from efficiently pricing AV insurance. When insurance markets do not function properly, problems result. If AV insurance is priced too low, insurers risk insolvency. If AV insurance is priced too high, AVs may become too expensive for many potential customers. Either scenario discourages AV adoption. Thus if California’s regulatory structure undermines an efficient AV insurance market, the AV industry—and the societal benefits we hope and expect AVs to provide—could be strangled.

In this paper, we argue that AVs should be removed from the Prop 103 ecosystem and that a new regulatory system for AV insurance is needed. We also demonstrate that removing AVs from the Prop 103 ecosystem may prove very difficult as a matter of law. We do not suggest that Prop 103 should be repealed for human-driven vehicles. The extent to which Prop 103 has delivered and/or will continue to deliver net benefits to California’s human drivers is outside the scope of this analysis.

The paper is structured as follows. Section 2 briefly explains the history of California’s insurance regulation. Section 3 describes the structure of California’s current insurance system and outlines problems the system will pose for self-driving cars. Section 4 discusses possible solutions, and Section 5 provides recommendations for a new insurance scheme that can accommodate AVs.

2 Brief History of California Insurance Regulation

Understanding how and why Prop 103 came to be provides context useful for understanding how the legislation functions today. Before Prop 103, California’s insurance regulation was governed by the McBride-Grunsky Insurance Regulatory Act of 1947. This act assumed that market competition, rather than state regulation, was

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1 It is important to note that not all automated vehicles are capable of full self-driving. Most vehicles on the road today are equipped with some automated features (e.g., lane-keep assist, park assist, cruise control, adaptive cruise control, etc.) but still require some degree of human control. In this paper, though, we use the term “automated vehicles” to refer to vehicles capable of full self-driving in all or most circumstances (i.e., autonomous vehicles).

2 See Harvey Rosenfield, Auto Insurance: Crisis and Reform, 29 U. Mem. L. Rev. 69 (1998) at 117–121 (asserting that insurance premiums in California decreased significantly following the passage of Prop 103); Consumer Federation of America, 30 Years and $154 Billion of Savings: California’s Proposition 103 Insurance Reforms Still Save Drivers Money (Oct. 17, 2018) (claiming that California drivers have saved $154 billion in auto insurance premiums between 1988 and 2018); Jaffee & Russell, The Regulation of Auto Insurance in California (2001) (economic study of Prop 103 concluding that “[t]heir findings suggest that drivers in California have little to regret from the passage of Proposition 103 and the regulatory regime it introduced.”).
the best way to promote efficient and fair insurance ratemaking. From 1947–1988, California took an extremely laissez-faire approach to auto insurance regulation.

In the mid-1980s, auto insurance rates across the country began to increase dramatically. California’s total auto insurance premiums rose from $4.3 billion in 1984 to $7.3 billion just three years later. The reasons for this sudden increase are complex and interconnected, but two simplified views came to dominate the popular discourse.

The first view, promoted by the insurance industry, was that insurance rates were rising due to skyrocketing liability costs. The second view, promoted by consumer advocates such as Harvey Rosenfield, was that the insurance industry was engaging in price-gouging due to the state’s lack of meaningful insurance regulation.

In Fall 1988, four different insurance initiatives appeared on the California ballot. Three of these were promoted by the insurance industry to promote “tort reform”, or various limitations on civil liability. The fourth, Prop 103, was authored by Mr. Rosenfield and promoted by dissatisfied consumers. Prop 103 passed narrowly with 51% of the vote; the three insurer-backed propositions were defeated. As a result, Prop 103 was codified as Chapter 9, Article 10 (Sections 1861.01–1861.16) of the California Insurance Code.

Because of Prop 103, California’s insurance-regulation structure reflects the populist view that the insurance industry tends towards unfair practices without strict oversight. The structure further gives legal force to what Mr. Rosenfield termed the Personal Responsibility System: a set of “accountability, transparency, and consumer protection” rules designed to ensure that insurance rates reflect a driver’s ability and driving frequency rather than an insurer’s discriminatory impulses. Ironically, these noble aims may be weakened, not strengthened, by a strict application of Prop 103 principles to AV operators.

3 Proposition 103: Elements and AV Analysis

3.1 Prior Approval

Prop 103’s most significant structural change to the McBride-Grunsky framework was to convert California from an “open competition” state to a “prior approval” state. Under McBride-Grunsky, California insurers were allowed to adjust a customer’s auto insurance rates at will. California ostensibly believed that this would promote market competition and therefore drive down the consumer cost of auto insurance. The California Supreme Court noted that during the McBride-Grunsky era, “California ha[d] less regulation of insurance than any other state, and in California automobile liability insurance [was] less regulated than most other forms of insurance.”

While economic competition should generally promote efficient pricing, there is a fundamental difference between auto insurance and nearly all other products purchased at market: personal auto insurance is usually compulsory for owners of personal vehicles. Furthermore, many consumers (particularly those who live outside urban areas) lack reasonable transportation alternatives to personal vehicle ownership. These consumers cannot forgo driving, and therefore must purchase auto insurance even when the cost is unfairly high. This reality led Mr. Rosenfield to assert that “the insurance function [is] so directly related to the economy and society that insurers carry a quasi-public responsibility, which, in turn, requires public oversight and regulation.”

Prop 103 therefore requires insurers to first submit all proposed insurance rates to the California Department of Insurance. The Department of Insurance reviews each proposed rate to ensure that it complies with California law, including the other provisions of Prop 103. The Department of Insurance also reviews the rate, and the individual rating factors, to determine whether the rate is “justified by the loss experience for the group”—in other words, to

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7 Rosenfield, supra note 1, at 81.
8 See Cal. Ins. Code § 1861.05.
ensure that the insurer is not charging an excessive rate relative to the likelihood that a policy holder will need to use their policy.  

This “prior approval” scheme enables the Department of Insurance to ensure that rates offered to consumers are not “inadequate, excessive, or unfairly discriminatory”. In other words, the consumer’s rate must correspond to the amount of risk the consumer actually poses to the company. In this context, “inadequate” and “excessive” refer to rates that are too low or too high relative to the risk that a particular driver (or class of drivers) poses. “Unfairly discriminatory” refers to rates that give too much weight to a particular driver trait, even if consideration of that trait to a reasonable extent is explicitly permitted in the ratemaking process.

**Prior Approval and AVs**

California’s prior approval system requires the Department of Insurance to prevent “excessive, inadequate, or unfairly discriminatory” rates from reaching market. For non-automated vehicles, the Department is well-equipped to perform this task. Insurance rates are predicated on risk, so the insurer can demonstrate a particular driver’s risk (and therefore an appropriate rate) via the massive amounts of driving and accident data that insurers use to power their models. But comparable data sets do not yet exist for AVs, particularly those capable of full self-driving. This will make it difficult for insurers to prove that an AV insurance rate is neither excessive nor inadequate. Indeed, even well-intentioned insurers are likely to set rates that are either excessive (if the insurer is too cautious in projecting AV risk) or inadequate (if the insurer is too bullish on the safety potential of the technology), at least until the industry matures and insurers gain more experience in AV insurance pricing. The Department simply will not have sufficient data to know for sure. Prior approval will be nothing more than prior guesswork.

It is also important to note that the prior-approval system is a slow-moving operation. In 2013, the California Department of Insurance took an average of 139 days to resolve an insurance rate filing. This is by design to some extent, as methodically reviewing rate filings keeps poorly designed rates out of the market. A prolonged review time is merely inconvenient for insurers of non-automated vehicles. But it can be crippling for insurers of AVs. In the months that elapse between a rate filing and Department approval, new safety data and perhaps even new self-driving software updates may fundamentally change risk calculations. Prolonged review means that an AV insurance rate may become obsolete before it is even approved.

### 3.2 Mandatory Rating Factors

To calculate an individual’s auto-insurance rate, insurers conduct a multi-factor analysis of the prospective ratepayer. Factors typically considered include the applicant’s driving history, insurance-claim history, credit and financial history, demographic characteristics, and more. In the absence of regulation, an insurer would be free to give as much or as little weight to each of these factors as that insurer desires.

Prop 103, by contrast, mandates that three rating factors be weighted more highly than any others. These factors are, in descending order of required weight, the applicant’s: (1) driving-safety record; (2) total miles driven annually, and (3) years of driving experience. Prop 103 allows insurers to use other factors beyond these three, but only those “that the commissioner may adopt by regulation and that have a substantial relationship to the risk of loss.” Insurers may not use factors that have not been approved by the Department of Insurance.

**Mandatory Rating Factors and AVs**

The three factors listed above make sense for human-driven vehicles since the likelihood that such vehicles will crash is directly related to characteristics of the human operator. This is not the case for AVs. The likelihood that a

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10 See Cal. Ins. Code § 1861.05(a).
12 *Id.*
13 *Id.*
(self-driving) AV will crash depends almost entirely on the vehicle’s self-driving software and hardware rather than on the abilities of the human occupant(s). If Prop 103 requires that AV insurance be based primarily on the traits of the AV operator instead of the traits of the vehicle, insurance rates will not accurately reflect the risk that AVs pose.

This prompts the question of whether Prop 103’s mandatory rating factors must apply to human occupants. Does Prop 103 permit insurers to set AV insurance rates based instead on the vehicle’s safety record, total miles driven annually, and years of driving experience? The short answer is that no one knows. Prop 103 does not explicitly consider AVs—no surprise, given that the bill was enacted several decades before self-driving technology became possible. This is a likely area for litigation going forward, but it is not yet clear how California courts will rule on the matter.

### 3.3 The Good Driver Discount

Prop 103 also requires insurers to offer eligible drivers a “Good Driver Discount”\(^\text{(14)}\) (hereafter, “GDD”). The GDD is available to any driver who has been licensed to drive a motor vehicle for the past three years, has not been at fault in a crash in the past three years, and has not been convicted of driving while intoxicated in the past ten years.

The GDD entitles an eligible driver to a rate reduction “at least 20 percent below the rate the insured would otherwise have been charged for the same coverage.”\(^\text{(15)}\) Thus a driver whose risk factors would typically dictate a yearly premium of $1000 but who is eligible for the GDD can be charged no more than $800. The GDD is also transferable. Any auto insurer must offer the GDD not only to its existing customers, but to all qualifying prospective customers who wish to switch to that insurer as well.

**The Good Driver Discount and AVs**

The GDD is a rational way to incentivize safe driving for human operators of conventional vehicles: it rewards good drivers with low rates and punishes bad drivers with higher rates. But like the mandatory rating factors, the GDD is not directly applicable to AVs.

First, it is essentially irrelevant whether the human operator of a self-driving car is a “good driver” in the sense that the operator has a history of safely operating AVs. In a (self-driving) AV, the operator will rarely or never be tasked with actually driving. The question of whether the vehicle itself is a “good driver” is more salient. Creating a version of the GDD based on vehicle traits could be a way to promote AV safety. But such a version does not yet exist.

Second, applying the GDD to operators of self-driving AVs will result in the designation becoming fundamentally meaningless if AVs crash infrequently. The GDD is primarily based on whether the vehicle operator has been deemed “at fault” for a crash in the previous three years. We don’t yet know how fault will be determined and apportioned when self-driving AVs crash.\(^\text{(16)}\) It is possible, and perhaps likely, that human operators will rarely or never be deemed “at fault” for AV crashes—courts may instead choose to assign fault to the AV manufacturer, owner, or dispatcher.

As a result, many or all AV operators would quickly become eligible for the GDD. If and when AVs achieve widespread deployment, extending the GDD to AV operators would undermine the power of the discount to incentivize safety. A nearer-term concern is that extending the GDD to AV operators could lead to equity issues. At least at first, AVs will likely be very expensive to own. Drivers wealthy enough to own and use self-driving AVs could quickly become eligible for the GDD, which could force those who must continue to use conventional vehicles to assume a rising financial burden.

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\(^{15}\) See Cal. Ins. Code § 1861.02(b)(2).

The GDD requires that insurers provide a 20% discount to all drivers who qualify as “good drivers”, which means that insurers must recoup the cost of offering this discount by charging “bad drivers” more. If AVs expand the pool of good drivers, the shrinking pool of “bad drivers”—here, those who simply cannot afford to use safe AVs—would presumably have to shoulder disproportionately large costs in order for insurers to balance their books.¹⁷ This would exact an enormous toll on lower-income people who cannot afford AVs.

3.4 Intervenor Process

One of the most contentious elements of the Prop 103 system is its “intervenor process”.¹⁸ This process allows third parties to challenge a proposed insurance rate or any formal decision made by the Insurance Commissioner. The California Insurance Code states that “any person” may challenge an insurance rate. In practice, most notable challenges come from consumer advocacy groups. No other U.S. state has a third-party intervention process.

Intervention is controversial because it appears to be good business for certain repeated intervenors. Prop 103 provides that intervenors may recover fees and costs from the state for their efforts. State records indicate that intervenors were awarded $17.6 million in fees between 2003 and 2016, and that more than 75% of the $17.6 million has gone to Consumer Watchdog, the consumer advocacy group run by the drafter of Prop 103 and its intervenor provision.¹⁹ Critics, particularly insurance industry stakeholders, have intimated that the intervention process is merely a way for some intervenors to slow down the ratemaking process for their own financial benefit.²⁰

The amount that some intervenors have financially benefited from the intervention process is perhaps less important than the amount that California’s ratepayers have benefited from the existence of the process. Consumer Watchdog asserts that their interventions have saved ratepayers more than $2 billion by preventing unjustifiable rate increases.²¹ If this number is taken at face value, Consumer Watchdog’s intervention fees amount to less than 1% of the amount their interventions have saved ratepayers. Other commentators have reached different conclusions as to whether intervention ultimately saves ratepayers money.²²

The Intervenor Process and AVs

Intervention is not inherently bad; an intervenor who could introduce relevant technical data about AVs to could provide a desirable service. However, as stated in Section 1 of this paper, limited AV driving and incident data means that AV insurance rates are likely to be “inadequate or excessive,” at least at first. This in turn means that AV insurance rates could be easy targets for intervenors acting in bad faith. Because Prop 103 does not provide a clear gatekeeping mechanism to prevent frivolous or bad-faith challenges, intervention (and its associated costs) could increase without any corresponding benefit to society.

Furthermore, unnecessary intervention challenges would make it more difficult for society to quickly realize the benefits of AVs. Given the rapid pace of AV development, it is possible that interventions could delay rate filing so much that by the time a rate was finally approved, it could already be obsolete…requiring the filing process to begin anew. Moreover, the costs that insurers incur to defend their rates in court will likely be passed on in the form of higher prices and fees. If the intervenor process over-targets AV insurance practices, it could harm the very group—consumers—that it is designed to protect.

4 Separating AVs from Proposition 103

¹⁷ See Peterson, supra note 9, at 1378-1389 (mathematical explanations of how the increased number of “Good Drivers” will take a toll on the fewer remaining “Bad Drivers”).
¹⁹ Jim Miller, Consumer Watchdog collects millions, but does it lower your insurance rates? The Sacramento Bee (Jan. 17, 2017).
²⁰ See id. (“[F]ormer Insurance Commissioner Chuck Quackenbush alleged that some consumer advocates had ‘gotten fat off the public trough.’”).
²² See, e.g., Ian Adams, The Troublesome Legacy of Prop 103, Policy Study No. 43. R Street (October 2015) (“Prop 103 likely has encouraged insurers to file rates that are higher than they otherwise would, as it forces them to anticipate a negotiation process. Insurers hope to land at a final rate that is feasible for their business model. In the process, they encourage intervenors to claim credit for consumer savings.”).
Section 3 illustrated that California’s current auto-insurance regulation scheme is not well equipped to handle self-driving vehicle technology. Section 4 will explain the challenges of separating AVs from the Prop 103 scheme.

In most circumstances, the California legislature can replace an outdated law by simply passing a newer one. Prop 103, however, is a voter initiative rather than a legislative act. Because voter initiatives are considered to directly reflect the will of the people, the California legislature cannot overturn Prop 103 (or any other voter initiative) at its own discretion.

This leaves two ways to extricate AVs from Prop 103 governance. First, California voters could support a new ballot initiative to create a new insurance regulation framework for self-driving vehicles. This process is straightforward but will likely be difficult to achieve in the near future. Second, the California legislature could attempt to pass legislation that exempts AVs from Prop 103. Such an attempt is very likely to spur litigation, and judicial precedent does not favor legislative modifications of a voter initiative like Prop 103.

**A New Voter Initiative**

The same process that created Prop 103 is the process best positioned to change it. California’s ballot initiative process allows the state’s citizens to propose new laws and constitutional amendments, which can be ratified by a simple majority. This is precisely how Prop 103 became California law.

A new ballot initiative could exempt AVs from Prop 103 and/or create a new AV insurance regulation scheme. However, propositions tend to be costly endeavors. It requires considerable effort and money to collect signatures to qualify a proposition, and more money still to promote the proposition and secure approval of a majority of voters. For this reason, propositions are frequently written and promoted by wealthy interest groups. The AV insurance industry and/or the AV industry itself would be the likely sponsors of an initiative to remove AVs from the control of Prop 103. Naturally, this could invite skepticism that such a proposition would actually benefit consumers.

It will also be difficult to move an AV insurance ballot initiative forward until AV insurance becomes a more salient issue for voters. As of this writing, no fully self-driving vehicles are available for consumer purchase. Nor is it clear that California drivers are clamoring for these vehicles: according to a 2019 survey by the American Automobile Association, 71% of drivers report being afraid to ride in a self-driving vehicle. It will be difficult to get voters to care about AV insurance until demand for AVs increases, even if it is in the best interest of the public to enact change proactively.

A successful voter initiative would be the most straightforward way to change California’s insurance regulation system—it merely requires a critical mass of voters, as opposed to a complicated legal challenge. A new voter initiative is also a more democratic approach to changing the law than litigation waged by powerful parties. Similarly, given the current public skepticism towards self-driving AVs, it may be wise to conduct the AV lawmaking process as publicly and transparently as possible. A new voter initiative would involve the public in the decision-making process more directly than litigation.

**Legislation—Then Litigation**

Because Prop 103 was enacted by California voters, it may not be directly overturned by the California legislature. As the California Supreme Court has explained, “The legislature may not amend an initiative statute without subsequent voter approval unless the initiative permits such amendment, and then only upon whatever conditions the voters attached to the Legislature’s amendatory powers.” The text of Prop 103 permits legislative amendment only when two conditions are met: (1) the legislature must achieve a two-thirds supermajority voting to amend; and (2) the courts must conclude that the proposed amendment “furthers the purpose” of Prop 103.

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24 See Cal. Const, Art. II §10 (“The Legislature may amend or repeal a referendum statute. The Legislature may amend or repeal an initiative statute by another statute that becomes effective only when approved by the electors unless the initiative statute permits amendment or repeal without the electors’ approval.”) (emphasis added)
25 People v. Superior Court (Pearson), 48 Cal. 4th 564, 568 (Cal. 2010)
26 See Peterson, supra note 9 at 1371, 1373
Supermajorities are always difficult to forge, but this first condition is straightforward enough. The more difficult issue is the second condition: what does it mean for a proposed amendment to “further the purpose” of Prop 103? The judicial precedent most relevant to this question is the California Supreme Court’s 1996 decision in Amwest Surety Insurance Co. v. Wilson.

The Amwest case was brought by a consumer group after the California legislature passed a bill exempting surety insurance from the rate-reduction requirements of Prop 103. Amwest, the petitioner, argued that Prop 103’s voters did not intend Prop 103 to govern surety insurance because the voting materials disseminated to voters did not discuss surety insurance. It seems likely that most of Prop 103’s voters were more interested in auto insurance rather than surety insurance. This likelihood was acknowledged by the Court. However, the Court also concluded that even if voters didn’t know that surety insurance specifically was to be regulated by Prop 103, they understood that Prop 103 was “intended to apply broadly to large classes of insurance”. Hence determining the “purpose” of Prop 103 does not analyze “what the voters thought [Prop 103] meant.” The Court assumes that Californians duly considered the entire text of the proposition and voted accordingly.

Amwest parties also disputed whether the Court should give any deference to the legislature’s statement that a bill “furthers the purpose” of Prop 103. Amwest argued that precedent required the Court to start with a “strong presumption” that any legislative act was constitutional. The Court disagreed, holding that the intention of the voters superseded the Court’s traditional deference to the legislature.

Furthermore, the Court headed off potential policy arguments by noting: “The question before us is not whether [a legislative amendment to Prop 103] furthers the public good, but rather whether doing so furthers the purpose of Proposition 103.” In other words, the Court concluded that the legislature cannot change Prop 103 even if doing so would produce better policy choices.

The Amwest decision holdings sets a strong precedent against the legislature being able to modify Prop 103. The Court found in Amwest that the California legislature may not make any change to Prop 103 for policy reasons—even if those reasons are to ensure that the insurance code complies with what voters likely expected Prop 103 to achieve. A legislative attempt to modify Prop 103 to exempt AVs is unlikely to stand in court. Indeed, the legislature has attempted to modify Prop 103 twice since Amwest but was struck down by the California Court of Appeals each time. Legislative bills intended to modify persistency discounts and to reduce an insurer’s obligation to refund excess premiums were deemed to not “further the purpose” of Prop 103 in light of Amwest.

A legislative effort to exempt self-driving vehicles from Prop 103 will need to either demonstrate that it is entirely distinguishable from Amwest or convince the California Supreme Court to overturn the Amwest decision. Neither path is impossible, but both would require considerable time, money, and effort—and even then, success is far from certain.

That said, it is important to note that precedent is not permanent. Novel issues and novel permutations of old issues frequently convince courts to reshape old precedents. Self-driving AVs could be such a transformative technology, and governing AVs like conventional vehicles could prove to be so unworkable, that the California Supreme Court may be persuaded that modifying Prop 103 is necessary.

27 See generally Amwest Sur. Ins. Co. v. Wilson, 11 Cal. 4th 1243 (Cal. 1995). In addition to the provisions of Prop 103 discussed in this paper, Prop 103 also mandated an immediate 20% rate rollback for most other types of insurance. Surety insurance (also known as a surety bond) is a form of insurance sometimes used in the construction industry to guarantee that a builder will perform his contract. This financial product was not explicitly excepted from Prop 103’s rate rollback or prior-approval provisions, which led to the Amwest litigation.
28 Id. at 1260.
29 Id. at 1264.
30 Id. at 1260.
31 Id. at 1251.
32 Id. at 1265.
33 Foundation for Taxpayer and Consumer Rights v. Garamendi, 132 Cal. App. 4th 1354 (Ct. App. 2005). Persistency discounts are a type of rate discount offered to a customer who has been with the same insurer for a period of time.
5 Features of a New AV Insurance Regulation Scheme

If AV insurance is eventually exempted from Prop 103, we recommend that a new insurance regulation scheme be created for AVs. We endorse the following principles for such a scheme:

First, AV insurance should not be totally unregulated. AVs call for more flexibility than California’s current insurance scheme permits, but not for total deregulation. It will still be important for the California Department of Insurance to protect consumers by ensuring that would-be AV insurers have sufficient capital and technological know-how to operate in the AV insurance market.

Second, AV insurers should have increased rating factor flexibility. AV insurance prices must reflect AV risk, but because AV technology is new and likely to evolve quickly, “AV risk” is constantly subject to change. An AV’s past performance may not accurately predict future performance if new self-driving software updates are released, for instance. We do not know yet what factors are most predictive of AV risk, and even if we did, they may not be the same factors that will be most predictive in ten years. Thus an AV insurance scheme should not prescribe how to rate but instead allow insurers to self-determine the most efficient rating practices.

Third, AV insurance rates must be able to change quickly. Prop 103’s time-consuming prior-approval process means that insurance rates always lag the newest data and innovations. For human-driven cars this is merely an annoyance, but for AVs, new data and new software innovations can drastically change the relative risk (and thus the appropriate insurance rate) that an AV poses. Insurers must be able to modify rates quickly when new data support a re-rating.

Fourth, AV insurance should include, but carefully regulate, a third-party intervenor process. Third-party intervention should not be prohibited entirely, but it should be limited only to situations in which a third party can introduce relevant scientific data or other information about AV risk. This would promote the Insurance Commissioner’s ability to make informed decisions based on recent information while preventing bad-faith or financially motivated challenges to new AV insurance rates.