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How Would Individual Market Premiums Change in 2019 in a Stable Policy Environment?

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USC-Brookings Schaeffer Initiative for Health Policy

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EDITOR'S NOTE

This white paper is part of the USC-Brookings Schaeffer Initiative for Health Policy, which is a partnership between the Center for Health Policy at Brookings and the USC Schaeffer Center for Health Policy & Economics. The Initiative aims to inform the national health care debate with rigorous, evidence-based analysis leading to practical recommendations using the collaborative strengths of USC and Brookings.

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Introduction

In recent weeks, insurers in many areas of the country have unveiled the premiums they propose to charge for individual market health insurance policies in 2019. In setting premiums for 2019, insurers are taking account of several policy changes that will be newly in effect for the 2019 plan year, including repeal of the individual mandate penalty and Trump Administration actions to expand the availability of plans that are exempt from various Affordable Care Act (ACA) requirements. These policy changes are generally expected to cause many healthier people to leave the individual market and thereby raise individual market premiums (e.g., CBO 2018a; Blumberg, Buettgens, and Wang 2018).

This analysis examines how premiums might have changed in 2019 in a stable policy environment. To do so, I first estimate insurers' revenues and costs in the ACA-compliant individual market through 2018, drawing primarily on insurers' reports to state and federal regulators. With these estimates as a starting point, I then estimate how premiums would have changed in 2019 under various assumptions about how insurers' costs and margins would have evolved in 2019 without the major pending policy changes. This analysis reaches two main conclusions:

- **Insurers will earn large profits in the ACA-compliant individual market in 2018:**

I project that insurers' revenues in the ACA-compliant individual market will far exceed their costs in 2018, generating a positive underwriting margin of 10.5 percent of premium revenue. This is up from a modest positive margin of 1.2 percent of premium revenue in 2017 and contrasts sharply with the substantial losses insurers incurred in the ACA-compliant market in 2014, 2015, and 2016. The estimated 2018 margin also far exceeds insurers' margins in the pre-ACA individual market. These estimates for 2018 as a whole are broadly consistent with estimates for the first quarter of 2018 derived from insurers' first quarter financial filings by researchers at the Kaiser Family Foundation (Semanskee, Cox, and Levitt 2018).

The estimated improvement in insurers' margins for 2018 is driven by the substantial premium increases insurers implemented for 2018, which will almost certainly be more than sufficient to offset the loss of cost-sharing reduction (CSR) payments and what appears likely to be another year of moderate growth in underlying claims spending. Prior analysis of insurers' 2018 rate filings suggests that many insurers expected policy changes that are now scheduled to take effect in 2019, notably repeal of the individual mandate penalty, to take effect in some form during 2018 (Kamal et al. 2017). This may have led insurers to incorporate those policy changes into their premiums a year early.

- **In a stable policy environment, average premiums for ACA-compliant plans would likely fall in 2019:** In this analysis, I define a stable policy environment as one in which the federal policies toward the individual market in effect for 2018 remain in effect for

2019. Notably, this scenario assumes that the individual mandate remains in effect for 2019, but also assumes that policies implemented prior to 2018, like the end of CSR payments, remain in effect as well. Under those circumstances, insurers' costs would rise only moderately in 2019, primarily reflecting normal growth in medical costs. Meanwhile, for reasons I discuss in detail in the main text, it is unlikely that insurers would set 2019 premiums with the goal of keeping margins at their unusually high 2018 level. Downward pressure on premiums from falling margins would likely more than offset upward pressure on premiums from underlying cost pressures, so premiums would fall on net.

Indeed, under my base assumptions, I estimate that the nationwide average per member per month premium in the individual market would fall by 4.3 percent in 2019 in a stable policy environment. This estimate is subject to some uncertainty, primarily because of uncertainty about underlying individual market claims trends and about the margins insurers are likely to target for 2019. However, I estimate that average premiums would have declined in a stable policy environment under a range of plausible alternative assumptions.

The remainder of this analysis proceeds as follows. The first section provides an overview of my methodology for estimating insurers' revenues and costs through 2018, and the second section presents the resulting estimates. The final section examines what these estimates imply for premium changes in 2019 in a stable policy environment. A pair of appendices provide additional detail.

Methods for Estimating Individual Market Revenues and Costs

To estimate how insurers' revenues and costs in the individual market have evolved through 2018, I rely primarily on data from state regulators and the Centers for Medicare and Medicaid Services (CMS). This section of the analysis briefly describes how I integrate these various data sources to estimate each component of insurers' revenues and costs through 2018. Table 1 summarizes my approach, and Appendix A provides additional methodological detail.

This analysis examines different portions of the individual market in different years. For 2011 through 2013, I focus on the entire individual market. For 2014 and later years, I focus on only the ACA-compliant market, the portion of the market that is subject to the main ACA requirements implemented in 2014, including modified community rating, guaranteed issue, and essential health benefits requirements. I focus on ACA-compliant plans in these years because these plans account for the large majority of individual market enrollment today, and they are the only individual market plans that are open to new enrollment. For the same reasons, public discussion of trends in individual market premiums and insurer participation typically focuses on ACA-compliant plans.

Table I: Summary of Data Sources and Methodology

Category of Revenues or Costs	Calendar Year			
	2011-2016	2017	2018	
<i>Premium revenue</i>	Direct calculation from MLR public use file	Trended based on CMS risk adjustment program reports	Trended based on CMS enrollment reports & RWJF HIX Compare plan offerings data	
<i>Reinsurance program revenue</i>		Zero		
<i>Cost-sharing reduction payments</i>		Trended based on insurers' annual NAIC filings	Zero	
<i>Claims spending</i>			Trended using estimated 2017 growth rates, informed by indirect indicators of spending trends	
<i>Administrative spending</i>				
<i>Taxes and fees</i>		Trended using disaggregated approach described in Appendix A		

For years 2011 through 2016, I estimate insurers' revenues and costs using their Medical Loss Ratio (MLR) filings with CMS, which provide detailed information on insurers' revenues, costs, and enrollment (CMS 2018e). Importantly, for 2014 through 2016, insurers separately report information for the individual market as a whole and for the subset of plans subject to the risk corridor program. The risk corridor universe includes almost all ACA-compliant enrollment, so the risk corridor portions of the MLR filings can be used to gauge insurers' revenues and costs for their ACA-compliant plans.¹

¹ The risk corridor universe consists of on-Marketplace plans and off-Marketplace ACA-compliant plans offered by insurers that offered some on-Marketplace plans. In 2014, 2015, and 2016, enrollment in the risk corridor universe was 95 percent of total ACA-compliant enrollment as reported by CMS (2018h) using risk adjustment data (in the 48 states plus the District of Columbia for which the risk adjustment data are available).

Because MLR filings are not yet available for 2017 and 2018, I must use different data sources for these years.² In general, I start with the per member per month estimates of each component of insurers' revenues and costs for 2016 obtained using the MLR data, and I then trend these amounts forward to future years using the best available information on trends during the intervening period. Because I rely on preliminary information for 2017 and 2018, my estimates of insurers' revenues and costs for these years, particularly 2018, are subject to meaningful uncertainty.

For 2017, premium trends in the ACA-compliant market can be measured directly using CMS' annual risk adjustment program summary reports (CMS 2017b; CMS 2018g). For claims and administrative spending, as well as revenue from CSR payments, I rely primarily on data from insurers' filings with state regulators, which are compiled by the National Association of Insurance Commissioners (NAIC); these data encompass the entire individual market, not just ACA-compliant plans, but I adjust for this fact using the method described in Appendix A. For taxes and fees, I use a disaggregated approach that estimates insurers' liability for each of several categories of taxes and fees based on the rules that govern each of those taxes and fees.

For 2018, I estimate premium trends in the ACA-compliant market by combining CMS data on the average premiums of plans selected by Health Insurance Marketplace consumers during the 2018 open enrollment period with data on 2018 individual market plan offerings from the Robert Wood Johnson Foundation's HIX Compare database (CMS 2018c; RWJF 2018). Additionally, I assume that plans receive no CSR payments during 2018, consistent with the Trump Administration's decision to end those payments, and I project tax liabilities using the same disaggregated approach used for 2017.

For claims and administrative spending, limited direct information on trends during 2018 are available, so I make assumptions guided by various indirect indicators that are available. Starting with claims spending, it appears that the main determinants of claims spending evolved in similar ways in both 2017 and 2018. Data on Marketplace plan selections suggest a similar enrollment decline in both 2017 and 2018, which should translate into similar changes in risk mix, and broader trends in the cost of medical care appear similar as well (CMS 2018b; Altarum 2018). While the pace of movement toward more tightly managed plan designs may be somewhat slower in 2018, at least by some measures, the average actuarial value of individual market plans appears to have declined by slightly more in 2018, which would work in the opposite direction (McKinsey and Company 2017).³ I therefore

² Because the risk corridor program ended after 2016, MLR filings for 2017 and later years will not separately report information for the universe of plans subject to the risk corridor program. Thus, even when these filings are available, it will be harder to use them to generate estimates specific to the ACA-compliant portion of the individual market.

³ Calculations based on CMS data on Marketplace plan selections by metal tier and income suggest that the average actuarial value of those plans (including the value provided by CSRs) declined by 0.3 percentage points from 2016 to 2017 and 0.9 percentage points from 2017 to 2018 in states using the HealthCare.gov enrollment platform. Including states using their own enrollment platforms and off-Marketplace data could lead to slightly different quantitative estimates, but would likely lead to broadly similar qualitative findings.

assume that the growth rate of per member per month claims spending in the ACA-compliant market during 2018 will match the 3.4 percent growth rate I estimate for 2017.

This assumed claims growth rate is broadly consistent with data from insurers' financial filings for the first quarter of 2018, as analyzed by Semanskee, Cox, and Levitt (2018) at the Kaiser Family Foundation (KFF). The KFF researchers estimate that claims spending net of CSR payments was 11.6 percent higher on a per member per month basis in the first quarter of 2018 relative to the first quarter of 2017, whereas my assumptions about growth in claims spending, combined with the disappearance of CSR payments, imply that claims spending net of CSR payments in the ACA-compliant market will rise by 12.8 percent on a per member per month basis from 2017 to 2018.⁴ These two growth rates are not entirely comparable because the KFF analysis examines the entire individual market rather than just the ACA-compliant market and because the effect of the Administration's decision to end CSR payments will likely differ between the first quarter and the year as a whole. However, the results of the KFF analysis do suggest that my 2018 claims growth assumption is at least broadly reasonable.

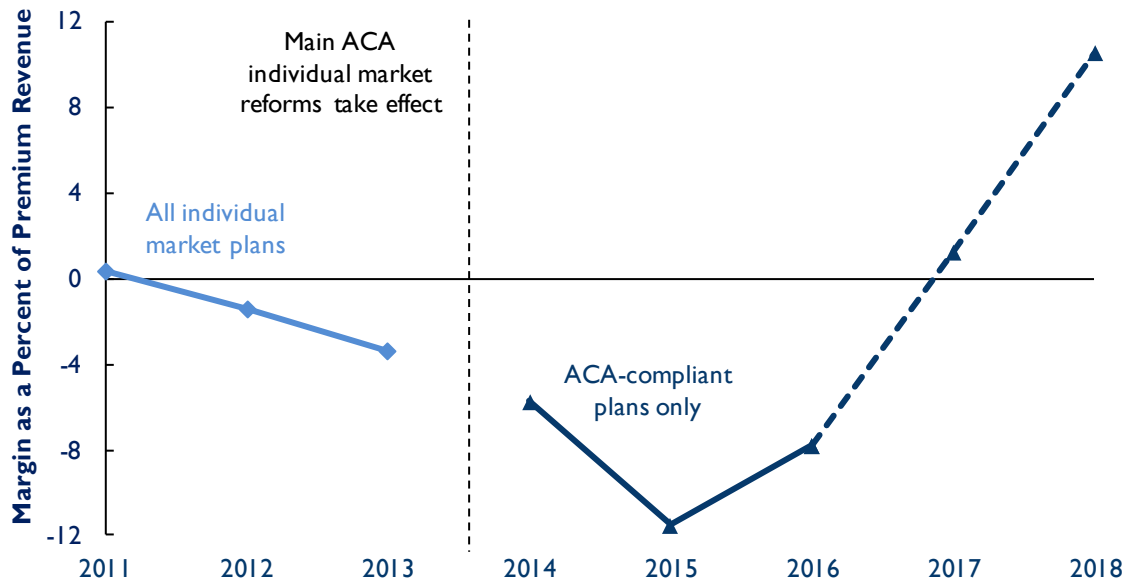
Turning to administrative spending, insurers' administrative spending reflects a combination of fixed costs that do not vary with enrollment or claims experience, costs that vary with the number of enrollees, and costs that vary with claims spending. Consistent with that, trends in per member per month administrative spending are determined by trends in individual market enrollment, trends in individual market claims spending, and trends in the costs of other goods and services. As discussed above, trends in individual market enrollment and claims spending appear to have been similar in 2017 and 2018, and the Congressional Budget Office projects overall inflation to be only slightly higher in 2018 than in 2017 (CBO 2018b). I therefore assume that the 2018 growth rate of per member per month administrative spending in the ACA-compliant market will match the 7.3 percent growth rate I estimate for 2017.

Before proceeding to the results, I note that there is reason to suspect that my estimates will understate insurers' profitability to some degree because they are based on MLR filings. CMS uses MLR filings to measure whether insurers have spent at least 80 percent of premium revenue on claims, and insurers that fail to meet this standard are required to pay rebates to enrollees. As a result, insurers have an incentive to overstate their claims costs and understate their premium revenue, which would make them look less profitable than they actually are. CMS also used the risk corridor portion of the MLR

These calculations do assume that the average actuarial value of plans within each metal tier remained constant from 2017 to 2018. However, the Trump Administration implemented rules for 2018 that reduced the minimum actuarial value required to qualify for each metal tier, and these rules may have reduced the average actuarial value of plans within each tier. The decline in the average actuarial value of individual market plans may thus be somewhat larger than these estimates suggest.

⁴ It would be preferable to examine growth in claims spending alone, rather than claims spending net of CSR payments. Unfortunately, due to limitations of the financial filings used in the KFF analysis, the authors are only able to report trends in claims spending net of CSR payments.

Figure 1: Underwriting Margin as a Percent of Premium Revenue



Source: Author's calculations based on CMS, NAIC, and RWJF data.
 Note: Values for 2017 and 2018 are estimates based on preliminary and incomplete data.

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filings to administer the risk corridor program, which creates similar incentives to overstate claims costs and understate premium revenue. More generally, insurers may also wish to understate their profitability in regulatory filings in order to increase their leverage when negotiating with regulators over premium setting and other topics. Research in many settings, including this one, finds that firms do sometimes alter how they report information to regulators in response to these types of incentives (e.g., Clausing 2016; Dafny 2005; Eastman and Eckles 2017).⁵

Evolution of Insurers' Revenues and Costs Through 2018

Figure 1 reports the resulting estimates of insurers' overall underwriting margin (total non-investment revenue minus total costs) in the ACA-compliant individual market.⁶ I estimate that insurers will see

⁵ Insurers could manipulate their MLR filings in a variety of ways. For example, Eastman and Eckles (2017) suggest that insurers may systematically overstate the amount of claims incurred during a reporting year that have not yet been paid (or even received) by the insurer. As another example, insurers that participate in both the individual and group markets may be able to structure their contracts with providers or pharmaceutical manufacturers in ways that cause claims spending to show up in the individual market rather than in markets where MLR requirements are less likely to bind.

⁶ These estimated underwriting margins do not incorporate any MLR rebates insurers might ultimately owe for these plan years. I focus on margins before MLR rebates because this is the measure that is most relevant to evaluating how premiums might change in the future. In any case, accounting for MLR rebates would not change the qualitative conclusion that insurers will be highly profitable in 2018. This is both because rebates are calculated based on insurers' performance over a three-year period, so 2018 will be averaged with years where insurers were (or likely will be) less profitable and because administrative spending is much lower relative to claims spending than in the past, so even these high underwriting margins are consistent with MLRs that are only modestly below the rebate threshold.

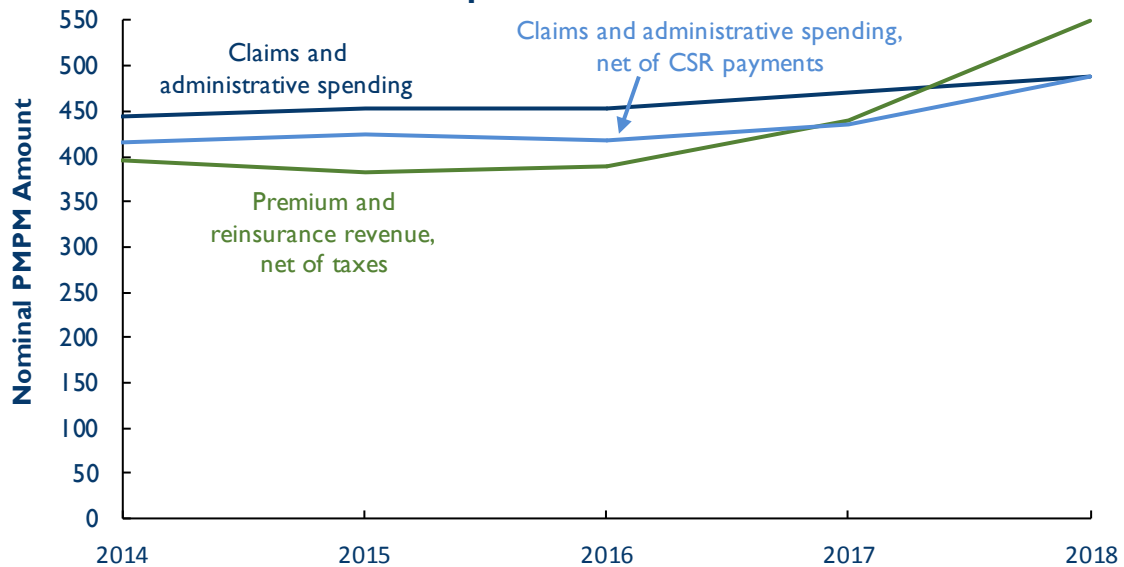
positive margins of 10.5 percent of premium revenue on ACA-compliant individual market plans in 2018. While this estimate is subject to some uncertainty because data for 2017 and, particularly, 2018 are incomplete, it is essentially certain that insurers will earn substantial profits in the ACA-compliant market in 2018. This finding is consistent with a recent Kaiser Family Foundation analysis by Semanskee, Cox, and Levitt (2018) using insurers' first quarter financial filings that found that insurers' individual market business as a whole performed very well in the first quarter of 2018.

It appears that 2018 will be the second consecutive year in which insurers record positive margins in the ACA-compliant market, as I estimate that insurers also saw positive margins of 1.2 percent of premium revenue in 2017. That margin would have been around 1 percentage point larger without the Trump Administration's decision to cease CSR payments for the last three months of 2017. Insurers' positive margins in 2017 and 2018 contrast sharply with the substantial losses insurers incurred during the first three years following implementation of the ACA's main coverage provisions.

To shed light on what has driven the substantial improvement in insurers' financial performance, Figure 2 examines how insurers' revenues and costs in the ACA-compliant market have evolved over time. Appendix B reports the underlying estimates for each individual category of revenues and costs.

Insurers incurred moderate losses in 2014, the first year that the ACA's main coverage provisions were in effect, likely largely reflecting challenges in predicting claims costs in the new market and setting premiums to match. Those losses swelled in subsequent years, despite subdued growth in claims and other spending, because the modest premium increases insurers implemented for these years were

Figure 2: Per Member Per Month Revenue and Costs in the ACA-Compliant Individual Market



Source: Author's calculations based on CMS, NAIC, and RWJF data.
 Note: Values for 2017 and 2018 are estimates based on preliminary and incomplete data.

more than offset by the phasedown of the ACA's transitional reinsurance program, which compensated insurers for a portion of the claims costs incurred by high-cost enrollees in 2014, 2015, and 2016.⁷

Insurers' persistent losses in the ACA-compliant market set the stage for the substantial premium increases they implemented for 2017. Those increases were more than sufficient to offset the final step in the phasedown of the ACA's transitional reinsurance program as well as continued slow growth in claims and other expenses. As a result, insurers returned to profitability in 2017 despite the modest headwind created by policy changes during 2017, most importantly the loss of CSR payments for the final three months of the year.

Absent the significant changes in federal policy toward the individual market that started in 2017, it is likely that 2017's substantial premium increases would have been followed by a return to more modest premium increases designed to merely maintain margins at their 2017 level. In earlier work, I estimated that, in a stable policy environment, premiums would have risen by percentages in the mid-to-high single digits for 2018, reflecting underlying growth in medical spending, the return of the ACA's health insurance fee (which had been suspended for 2017), and possibly a modest additional adjustment required to return margins to their long-run equilibrium level (Fiedler 2017).⁸

Instead, I estimate the average per member per month premium revenue will be around 28 percent higher in 2018 than in 2017. This large premium increase largely reflected actual or anticipated changes in federal policy. As discussed in more detail below, some of those policy changes actually occurred, but some will end up occurring in 2019, with the result that the premium increases implemented for 2018 were sufficient to drive an estimated 9 percentage point increase in margins.

The most important policy change that actually occurred was the Trump Administration's decision to end CSR payments, which eliminated revenue equivalent to around 9 percent of 2017 premium revenue. Following the Trump Administration's decision, state regulators typically allowed insurers to raise premiums to compensate for the loss of CSR revenue, and insurers generally did so, focusing those premium increases on silver plans (Corlette, Lucia, and Kona 2017).

However, insurers' rate filings for 2018 indicate that many insurers were also concerned that federal policymakers would take actions that would cause healthier enrollees to leave the individual market

⁷ Because the phasedown of the reinsurance program was predictable, it is puzzling that insurers did not raise premiums more significantly in 2015 and 2016. Fiedler (2017) discussed this puzzle and other aspects of insurer financial performance through 2017 in much greater detail.

⁸ Throughout this paper, my estimates account for the ACA's health insurance fee in the year in which payments are made, consistent with the typical accounting and regulatory treatment. In fact, however, the payments due in any particular year are based on insurers' premium revenue in the prior year. Thus, from an economic perspective, the 2017 moratorium on the ACA's health insurance fee should be viewed as having improved insurers' 2016 margins, not their 2017 margins. Switching to this alternative presentation would not change any of the conclusions of this analysis, but it can matter in other settings.

in significant numbers, such as repealing or relaxing enforcement of the individual mandate (Kamal et al. 2017); notably, CBO had estimated that repealing the mandate would raise individual market premiums by around 10 percent (CBO 2017). As it turned out, these concerns were well-founded, but a year premature. Congress did eliminate the individual mandate penalty, but set a 2019 effective date. Similarly, the Trump Administration has now finalized rules that will expand the availability of plans that are not required to abide by various ACA regulatory requirements, most importantly so-called “short-term, limited duration” policies, which will likely siphon many healthier enrollees out of the ACA-compliant market (Blumberg, Buettgens, and Wang 2018). However, the new rules will not take effect until late 2018, so significant effects are unlikely to be felt until 2019 or later.

How Would Premiums Change in a Stable Policy Environment?

I now turn to the main question of this analysis, which is how premiums for ACA-compliant market plans would have changed in 2019 if insurers expected the federal policies toward the individual market currently in effect for 2018 to remain in place for 2019.

To be precise, I consider a counterfactual policy scenario in which insurers expect: (1) the individual mandate penalty to remain at its 2018 level, rather than falling to zero; (2) rules governing short-term, limited duration insurance policies and other plan types exempt from ACA requirements to remain as they were at the start of 2018; (3) the Trump Administration to refrain from taking other actions that would negatively affect the individual market risk pool or insurers’ individual market revenues; and (4) the ACA’s health insurance fee to remain in effect in 2019, rather than being subject to the one-year moratorium included in fiscal year 2019 appropriations legislation.⁹

It is important to note that the policy scenario I am examining in this analysis differs in important ways from a scenario in which federal policy toward the individual market returns to where it was at the start of 2017. Most importantly, the policy scenario I examine here assumes that CSR payments will not be made during 2019. Additionally, it assumes that various other policies implemented by the Trump Administration, such as a shorter open enrollment period and additional documentation requirements for people enrolling through special enrollment periods, remain in effect in 2019.

At a high level, the premiums insurers would set in this policy scenario (or any other policy scenario, for that matter) would depend on two main factors. The first is the expected cost of issuing individual market policies, including claims costs, administrative costs, and taxes. The second is insurers’ target

⁹ The policy scenario I examine also assumes that no new state waivers under Section 1332 of the ACA are implemented for 2019 since these waivers require federal approval. In reality, it appears that multiple states will obtain approval for waivers creating state reinsurance programs for 2019. A policy scenario in which these waivers were permitted to go forward, but federal policy otherwise remained fixed, would lead to modestly lower 2019 premiums than I estimate here.

profit margins, which primarily reflect their perceptions of the competitive pressures they face, but may also be influenced to some degree by the decisions of state regulators. I discuss each factor in turn.

Expected Cost of Issuing Policies

Medical claims are by far the largest component of insurers' costs. In a stable policy environment, it is likely that claims trends in the individual market would broadly mirror those in private insurance as a whole.¹⁰ Thus, in my base scenario, I assume that per member per month claims spending would rise by 3.8 percent in 2019, matching the projected change in per enrollee spending in employer-sponsored coverage in 2019 in the most recent National Health Expenditure projections issued by the CMS Office of the Actuary (CMS 2018f). This growth rate would be somewhat higher than the per member per month claims growth rates observed in the ACA-compliant market to date, which I estimate at 3.7 percent in 2015, -0.2 percent in 2016, and 3.4 percent in 2017.

This growth rate of per member per month claims spending is lower than projections of “medical trend” cited by industry and actuarial groups, which often fall in the 5 to 8 percent range (American Academy of Actuaries 2018; AHIP 2018). However, medical trend generally refers to the change in plan spending holding plan characteristics fixed, whereas I am trying to project the realized change in average claims spending, which accounts for any shifts in enrollment toward lower-cost plan designs. (In practice, industry groups may also have incentives to overestimate medical trend in order to avoid undercutting the assumptions their members make in regulatory filings.)

Regardless, there is clearly meaningful uncertainty about claims growth during 2019 and insurers might have different expectations. Insurers might also have different beliefs about how claims spending will ultimately evolve in 2018. To illustrate how different assumptions about the trajectory of claims spending would affect my estimates of the premium changes that would occur in 2019 in a stable policy environment, I also present results for scenarios in which insurers expect growth in per member per month claims spending in both 2018 and 2019 to be 2 percentage points higher or 2 percentage points lower than in my base assumptions.

It is also worth noting that this approach to trending claims spending implicitly assumes that claims spending during 2018 was entirely unaffected by the various policy changes scheduled to take effect in 2019. However, in light of survey data suggesting that around one-fifth of the public believes that repeal of the individual mandate has already taken effect, it is possible that repeal of the individual mandate did have some effect on behavior during 2018 (Kirzinger et al. 2018). If that is the case, then

¹⁰ Even without further policy changes, it is plausible that the distribution of enrollees across metal tiers would change in 2019 as consumers continue to adjust to the increase in the price of on-Marketplace silver plans relative to other ACA-compliant plans caused by the end of CSR payments. However, because only a minority of enrollees are affected and some of the enrollees leaving silver plans will migrate to gold plans, while others will migrate to bronze plans, this is likely to have only a modest net effect on overall claims trends, and it is not immediately clear what sign that effect would be.

my approach will overstate the level of claims spending during 2019 in a stable policy environment and therefore overstate the premiums insurers would set for 2019 under those conditions.

For administrative spending, I use the same 3.8 percent growth rate as for claims spending. For taxes, I use the same approach used to project tax liabilities for 2018, shifted forward by one year, with small modifications described in Appendix A.

Target Profit Margins

The recent history of insurers' individual market underwriting margins, which was depicted in Figure 1, can provide some guidance on the margins individual market insurers would target for 2019 in a stable policy environment. To start, it is doubtful that insurers would aim to maintain the exceptional margins of 10.5 percent of premiums that I estimate they are on track to achieve in 2018. As discussed above, it appears that many insurers priced for 2018 under the assumption that policymakers would take various actions that would worsen the individual market risk pool that are now on track to occur in 2019, not 2018.¹¹ As a result, it appears likely that insurers' realized 2018 margins will exceed their actual target margins, which suggests that insurers will target lower margins in future years.

The harder question is how much lower insurers' target margins actually are. One way to get at this question is to look at the margins insurers achieved in years where insurers were not coping with major policy changes or surprises. The only post-ACA year where that was plausibly the case was 2017, when insurers recorded a positive margin of around 1 percent of premium revenue. As mentioned previously, I estimate that this margin would have been around 2 percent of premium revenue if CSR payments had continued through the end of 2017.

The three pre-ACA years are another useful touchstone since individual market rules were mostly stable during this period. The average margin observed over that period was -1.5 percent of premium revenue. (As noted above, it is plausible that MLR filings may understate insurers' actual financial performance to some degree, so it is possible that insurers were not actually incurring losses on their individual market business during those years. Indeed, it is unlikely that true losses would have been sustainable.) Of course, the post-ACA market differs in a wide variety of ways from the pre-ACA market, so the equilibrium margins in the post-ACA world could differ from be higher or lower than they were pre-ACA, but this is nevertheless another useful data point.

My best guess based on the evidence reviewed above is that, over the long run, individual market margins (at least as measured using insurers' MLR filings) would fall into the low single digits. However, it is plausible that prices in this market are somewhat sticky, so I assume in my base scenario

¹¹ Alternatively, insurers could have emphasized these policy risks in rate filings in order to convince state regulators to approve higher premiums than they otherwise would have. But it is unlikely that this type of ruse would be repeatable going forward, so this story also suggests that margins would be likely to decline markedly after 2018.

that insurers would target margins of 4 percent of premium revenue in 2019. Because there is meaningful uncertainty both about what margins will prevail in this market’s long run equilibrium and about how long it will take to get there, I also present estimates for scenarios in which insurers target margins of 1 percent or 7 percent. For reference, I also present a scenario in which insurers target the 10.5 percent margin I estimate they will achieve in 2018, although I view this outcome as implausible.

Estimated Premium Changes for 2019 in Stable Policy Environment

Table 2 presents the resulting estimates of premium increases in 2019. Under my base assumptions, I estimate the average per member per month premiums in the individual market would fall by 4.3 percent in 2019 in a stable policy environment, as depicted in the shaded cell in the middle of the table. I find that average premiums would also be likely to fall in 2019 under a range of alternative assumptions. Only in the scenarios where insurers are aiming to maintain margins similar to those achieved in 2018 or where both target margins and expected claims growth are meaningfully higher than in my base scenario do I find premium increases, and those increases would generally be modest.

As noted above, Table 2 focuses on the change in the average per member per month premium. For a variety of reasons, this measure may differ somewhat from other commonly used measures of premium changes. In particular, this measure is likely to be lower than the average rate increase reported in insurers’ rate filings, which typically reflect the average premium change that would occur if all enrollees remained enrolled in their current plan. In reality, many enrollees switch plans each

Table 2: Estimated Change in the Per Member Month Premiums from 2018 to 2019 in a Stable Policy Environment Under Various Assumptions

Assumed Target Underwriting Margin	Assumed Growth in Per Member Per Month Claims Spending in 2018 and 2019		
	2 percentage points lower in both years	Base assumption (2018: 3.4%; 2019: 3.8%)	2 percentage points higher in both years
1 percent	- 10.9%	- 7.6%	- 4.3%
4 percent (base assumption)	- 7.6%	- 4.3%	- 0.9%
7 percent	- 4.2%	- 0.7%	+ 2.8%
10.5 percent (est. 2018 margin)	+ 0.3%	+ 3.9%	+ 7.6%

Source: Author's calculations based on CMS, NAIC, and RWJF data.

year, and they generally switch toward lower-priced plans, so the actual change in the average premium tends to be lower than the change in the average premium holding enrollment fixed.

On the other hand, with the notable exception of 2018, the percentage change in the average per member per month premium has historically been similar to the percentage change in the average premium for the second-lowest cost Marketplace silver plan, the lowest-cost Marketplace bronze plan, or the lowest-cost Marketplace gold plan. This is likely because the distribution of enrollment across metal tiers has been relatively stable over time (which is borne out by available data) and because, within any given metal tier, consumers have tended to purchase plans at a similar point in the premium distribution (which is difficult to confirm with publicly available data, but plausible).

The 2018 plan year was an exception in this regard because of the Trump Administration's decision to end CSR payments. Because CSRs are generally only available for silver plans, the CSR cutoff led insurers to raise premiums for silver plans by markedly more than they raised premiums for other metal tiers, while also causing consumers reshuffle themselves across metal tiers. In 2019, the old pattern is likely to largely reassert itself, although continued adjustment to the CSR cutoff may cause silver plan premiums to rise by more than the average per member per month premium, while premiums in other metal tiers may rise by somewhat less.¹²

Finally, it is important to note that the estimated premium changes in Table 2 reflect a nationwide average. Premium increases will vary considerably across insurers and geographic areas in any policy scenario, including the one examined here. This is because different insurers will have different expectations about how the cost of providing coverage will change in 2019 and will be starting from different 2018 profit margins.

¹² There are two reasons that trends may differ between the silver metal tier and other metal tiers in 2019. First, it is likely that some people who are ineligible for CSRs (or eligible for small CSRs), but who remained in on-Marketplace silver plans in 2018 will shift into off-Marketplace silver plans or other metal tiers in 2019. Since insurers in the large majority of states are now pricing silver plans to reflect the average cost of providing CSRs to silver plan enrollees, this will increase the required silver plan premium. Second, there is some reason to believe that insurers as a group under-adjusted for the CSR cutoff when setting 2018 silver plan premiums, both because some states directed insurers to reflect the CSR cutoff in premiums for all metal tiers (rather than just silver plans) and because some insurers may not have fully accounted for the tendency of silver plan enrollees who are ineligible for CSRs to shift to other metal tiers. Thus, 2018 profit margins were likely somewhat lower for silver plans relative to other metal tiers, a difference insurers are likely to seek to eliminate in future years.

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Appendix A: Methodological Details

This appendix provides additional detail on the data sources and methodology used to estimate each component of insurers' revenues and costs. The approach taken in this analysis is similar in most respects to the approach I used in a prior analysis that examined trends in individual market financial performance through 2017 (Fiedler 2017). This appendix thus refers back to the appendix of that earlier analysis regarding some methodological details.

Estimating Insurer Margins for 2011 through 2016

For 2011 through 2016, I measure each component of insurers' revenues and costs using insurers' MLR filings with CMS, for which CMS releases an annual public use file (CMS 2018e). In general, I measure each component of insurers' revenues in costs using the same lines of the MLR form used in my earlier analysis, so I refer readers back to that earlier analysis for a detailed listing of those lines. There are, however, two respects in which I deviate from the definitions used in the earlier analysis.

First, whereas the prior analysis categorized the "other taxes" reported on Part 1, Line 5.5a and Line 5.5b of the MLR form as "taxes and fees," this analysis categorizes them as "administrative spending." Many payments in this category (like insurers' payroll tax payments) are arguably better thought of as administrative costs for the purposes of predicting how they will evolve over time. In any case, these amounts totaled at most a few tenths of one percent of premium revenue in all years studied, so their precise treatment is of limited importance to the results.

Second, the prior analysis focused solely on "net claims spending," meaning claims spending net of CSR revenue. For this analysis, I separate out total incurred claims (Part 1, Line 2.1 of the MLR form) and CSR receipts (Part 2, Line 2.18 in the applicable years), as the Trump Administration's decision to end CSR payments in October 2017 makes it useful to be able to track these categories separately.¹³

Estimating Insurer Margins for 2017

MLR filings for 2017 will not be publicly available until later this year, so I use a combination of data sources to estimate insurers' revenues and costs during 2017. With a few exceptions, I start with the MLR-based estimate of per member per month (PMPM) revenues or costs in each of the categories listed in Table 1 during 2016, and I then increase that amount by a "trend percentage" that reflects the best available information on how that category of revenues or costs changed from 2016 to 2017.

¹³ CSR receipts are reported slightly differently on the risk corridor portions of the MLR filings and the rest of the MLR filings. In particular, the amounts reported on the risk corridor portion of the filings incorporate certain adjustments to prior years' CSR payments that it is not desirable to include for my purposes. Thus, for CSR receipts only, I use CSR receipts as reported in the individual market as a whole, rather than CSR receipts in the risk corridor universe. The difference in the aggregate amount of CSR revenue is less than 2 percent in all years, so the data source used has very little effect on the results.

Below, I describe how I derive the trend percentage for each category of revenues or costs (except for revenue from the ACA's transitional reinsurance program, which is zero because the program ended).

Premium Revenue

To estimate the trend percentage for premiums, I rely on data from CMS' risk adjustment program summary reports for the 2016 and 2017 program years (CMS 2017b; CMS 2018g). These data show that the national weighted average PMPM premium in the ACA-compliant market increased by 20.6 percent from 2016 to 2017; I use that percentage as the trend percentage.¹⁴

Claims Spending, Cost-Sharing Reduction Revenue, and Administrative Spending

To estimate the trend percentage for these categories, I use data from Supplemental Health Care Exhibits (SHCEs) that insurers filed with state regulators for 2016 and 2017, as compiled by the NAIC. One shortcoming of the SHCE data is that they do not include information for most California insurers since those insurers report to the Department of Managed Health Care, which uses a different financial reporting system. I thus exclude California from all of the calculations described below. This approach could cause me to modestly overestimate or underestimate actual national trends in 2017 to the extent that trends in California differed from trends in the nation as a whole.

I start by using the SHCE to estimate the relevant PMPM quantities for the individual market as a whole (including both ACA-compliant and non-ACA-compliant plans) for 2016 and 2017:

- **Net claims spending:** Unlike in the MLR data, where claims spending and CSR revenue can be measured separately, the SHCE only reports claims spending net of CSR revenue, which I refer to as "net claims spending" for these purposes. I estimate this amount using the "total incurred claims" line on the SHCE (Part 1, Line 5.0).
- **Administrative spending:** I estimate administrative spending as the sum of general and administrative expenses (Part 1, Line 10.5), claims adjustment expenses (Part 1, line 8.3), and health care quality expenses (Part 1, Line 6.6).

For two reasons, the raw trends observed in the SHCE must be adjusted before they can be used to trend claims spending, cost-sharing reduction revenue, or administrative spending. First, the SHCE data encompass the entire individual market, not just ACA-compliant individual market. Trends in the individual market as a whole likely differed from trends in the ACA-compliant market during 2017, primarily because individual market enrollment is shifting toward ACA-compliant plans over time and claims and administrative spending tends to be higher in ACA-compliant plans. Second, I require separate estimates of claims spending and CSR revenue to provide a jumping-off point for my 2018 and 2019 estimates, but, as discussed above, the SHCE combines those two categories.

¹⁴ The risk adjustment program reports do not include these data for Massachusetts or Vermont, but this omission is unlikely to meaningfully affect the results since these states accounted for less than 2 percent of individual market enrollment in 2016.

To address the first problem, I adjust the raw growth rates of net claims and administrative spending obtained from the SHCE to obtain estimates applicable to the ACA-compliant market alone. To do so, I first note that the growth rate of a PMPM quantity in the ACA-compliant market (plus one) can be written in terms of the full-market growth rate (plus one) and several auxiliary quantities:

$$\frac{x_{2017}^C}{x_{2016}^C} = \frac{1}{s_{2017}^C} \left[\left(\frac{x_{2017}^F}{x_{2016}^F} \right) \left(\frac{x_{2016}^F}{x_{2016}^C} \right) - s_{2017}^N \left(\frac{x_{2017}^N}{x_{2016}^N} \right) \left(\frac{x_{2016}^N}{x_{2016}^C} \right) \right],$$

where x_t^g denotes the quantity of interest in market segment g in year t , s_t^g denotes the share of individual market enrollment accounted for by market segment g in year t , and the three market segments are denoted, respectively, by C (denoting ACA-compliant), N (denoting non-ACA-compliant), and F (denoting the full individual market).

The full-market growth rate (plus one), denoted by x_{2017}^F / x_{2016}^F , is what can be estimated directly from the SHCE data. The various other quantities can be estimated from supplementary data:

- **ACA-compliant and non-ACA-compliant enrollment shares in 2017 (s_{2017}^C and s_{2017}^N):** To estimate these shares, I use overall individual market enrollment from the SHCE data and ACA-compliant enrollment from a CMS report compiled using data submitted for risk adjustment purposes (CMS 2018h).^{15,16}
- **Relative PMPM spending for ACA-compliant plans in 2016 (x_{2016}^F / x_{2016}^C and x_{2016}^N / x_{2016}^C):** I estimate these quantities using the MLR data. To estimate amounts for ACA-compliant plans, I use the data for the risk corridor universe, as in the rest of the analysis.

To estimate amounts for non-ACA-compliant plans, I use the data reported for plans outside the risk corridor universe and then make an adjustment to reflect the fact that a small number of ACA-compliant plans fall outside the risk corridor universe. Specifically, I assume that experience for ACA-compliant plans outside the risk corridor universe is the same as experience for plans inside the risk corridor universe. Under this assumption, the fact that average PMPM reinsurance payments to plans outside the risk corridor universe are approximately one-fifth as large as payments to plans inside the risk corridor universe implies that ACA-compliant plans account for approximately one-fifth of enrollment outside the risk corridor universe. I use this implied enrollment share, together with the assumption that

¹⁵ The estimates in this CMS report are derived from the same underlying data as the estimates in CMS' annual risk adjustment program summary reports. I use this report for these calculations, however, because it reports enrollment in a slightly different way that is better suited to the calculation I am making here.

¹⁶ As noted earlier, the CMS risk adjustment program reports do not include data on individual market enrollment for Massachusetts and Vermont. To fill this gap, I proxy for ACA-compliant enrollment in these states using enrollment in plans in the risk corridor universe as reported on MLR filings. I use this to derive an estimate of non-ACA-compliant enrollment in 2016, which I then trend forward to 2017 by assuming that the very small amount of non-ACA-compliant enrollment in the states declined at the same rate as it did in states for which complete data are available.

experience is same for ACA-compliant plans inside and outside the risk corridor universe, to infer experience for non-ACA-compliant plans.

- Growth rate of spending in the non-ACA-compliant market, plus one (x_{2017}^N/x_{2016}^N):**
 For this quantity, direct data are not available, so I must make an assumption. While the number of individuals enrolled in non-ACA-compliant plans is shrinking over time, the types of individuals enrolled in those plans and the types of plans they are enrolled in were likely relatively stable. This implies that claims and administrative spending in these plans likely rose roughly in accordance with trends in private insurance as a whole. Consistent with this, I assume that PMPM claims and administrative spending in non-ACA-compliant plans rose by 4.3 percent in 2017, matching estimated growth rate of per enrollee spending in employer coverage in the most recent National Health Expenditure Projections (CMS 2018f). The results are only slightly sensitive to this assumption.

Using this procedure, I estimate that PMPM administrative spending in the ACA-compliant market grew 7.3 percent in 2017, which is slightly lower than the 7.7 percent growth in the individual market as a whole. I estimate that PMPM net claims spending in the ACA-compliant market grew 3.6 percent in 2017, compared to the 4.7 percent growth rate observed in the market as a whole.

The final step is to disaggregate the estimated growth rate for net claims spending in the ACA-compliant market into separate growth rates for claims spending and CSR revenue. To that end, note that the growth rate of claims spending from 2016 to 2017 (plus one) can be decomposed as follows:

$$\frac{c_{2017}}{c_{2016}} = \left(\frac{c_{2017} - r_{2017}}{c_{2016} - r_{2016}} \right) \cdot \left(\frac{1}{1 + \left[\left\{ \frac{r_{2017}/r_{2016}}{c_{2017}/c_{2016}} \right\} - 1 \right] \left[\frac{-r_{2016}}{c_{2016} - r_{2016}} \right]} \right),$$

where c_t and r_t , respectively, denote PMPM claims spending and CSR revenue in the ACA-compliant market in year t . An analogous expression can be derived for the growth rate of CSR revenue. The equation says that the growth rate of claims spending can be calculated from the growth rate of net claims spending (the first term in parentheses), the difference in growth rates between PMPM CSR revenue and PMPM claims spending (the first term in square brackets), and the magnitude of CSR revenue relative to net claims spending in 2016 (the second term in square brackets).

The first of these quantities was estimated above, and the third can be calculated directly from the MLR data. To estimate the second quantity, the relative growth rate of PMPM CSR revenue and claims spending, I must use other data. To start, PMPM CSR revenue and claims spending should be affected similarly by changes in the price and utilization of care from 2016 to 2017, and there also do not appear to have been changes in the actuarial value of individual market plans or the income mix of CSR

enrollees that would have caused these growth rates to diverge.¹⁷ However, there were two major developments during 2017 that did affect CSR revenue and claims spending differently:

- **Higher CSR enrollment share:** The share of individual market enrollees receiving CSRs appears to have risen from 2016 to 2017, which would cause PMPM CSR revenue to grow more quickly than claims spending. The data reviewed above indicate that enrollment in the ACA-compliant market fell by 11 percent from 2016 to 2017, while CMS effectuated enrollment reports indicate that CSR enrollment fell by around 1 percent (CMS 2017a; CMS 2018a). These data indicate that differential growth in CSR enrollment relative to growth in ACA-compliant enrollment overall put around 12 percentage points of upward pressure on the growth rate of PMPM CSR revenue relative to the growth rate of PMPM claims spending.
- **End of CSR payments in October 2017:** CMS did not make CSR payments to insurers for the final three months of 2017. At first blush, it might seem that this decision would have reduced CSR revenue in 2017 by one-quarter relative to what it otherwise would have been. However, because of the way in which CMS made CSR payments, the end of CSR payments likely reduced CSR revenue for the 2017 plan year by somewhat less than that.

In particular, under the system that existed before the cutoff of CSR payments, CMS made monthly estimated payments to insurers during the plan year, and those amounts were later reconciled against the amount of CSR the insurer actually provided (CMS 2014). Under the rules CMS established for the reconciliation process for the 2017 plan year, insurers only must repay estimated CSR payments made during the first nine months of 2017 to the extent that those payments exceeded the amount they were entitled to for the *full* year (CMS 2018d).

Systematic data on how the amounts insurers received in estimated payments compared to the actual amount of CSR due are not available. However, statements by three insurers with large presences in the individual market suggest that they received more than three-quarters of their full-year allotment for 2017 during the first nine months of 2017.¹⁸ At the same time, these statements suggest that the amount paid fell short of what these insurers were due for the full

¹⁷ The open enrollment reports published by HHS for 2016 and 2017 report Marketplace plan selections by metal tier in the HealthCare.gov states. These data also report the number of plan selections with CSR, which I allocate across CSR income brackets in proportion to the number of plan selections in the relevant income brackets. Under the simplifying assumption that each plan in each metal or CSR variation tier has the “base” actuarial value of that tier (e.g., silver plans have an actuarial value of 0.7), the average actuarial value of Marketplace plans, inclusive of the value contributed by CSR, declined from 79.1 percent in 2016 to 78.7 percent in 2017, while the incremental value contributed by CSRs (among CSR enrollees) declined from 17.7 percent in 2016 to 17.6 percent in 2017. These declines are small and, more importantly, nearly identical in proportional terms.

¹⁸ See statements by Centene on 2017Q3 and 2017Q4 earnings calls, statements by Molina Healthcare on its 2017Q3 and 2017Q4 earnings calls, and statements by Anthem on its 2017Q3 earnings call (Anthem 2017; Centene 2017; Centene 2018; Molina Healthcare 2017; Molina Healthcare 2018).

year, and the decision of some insurers to file suit to recover unpaid CSR strongly suggests other insurers also received less than their full allotment (Keith 2018). On the basis of this admittedly imperfect evidence base, I assume that insurers received 87.5 percent of the CSR revenue they were entitled to in 2017, meaning that I assume that insurers' losses due to the CSR cutoff during 2017 was about half as large as they would have been if estimated CSR payments were perfectly calibrated.

My estimates of insurers' 2017 financial performance are insensitive to this assumption because it does not change my estimate of net claims spending in 2017, just how that amount is decomposed into claims spending and CSR revenue. However, this assumption does affect my estimates for future years because if insurers received a greater amount of CSR revenue during 2017, then the disappearance of those payments in future years has a larger effect on their financial performance. For reference, if I assumed that insurers received the full amount of CSR payments they were entitled to during 2017, then I would estimate that CSR revenue was about 1 percentage point larger as a share of premiums in 2017. If I assumed that insurers received only three-quarters of the amounts they were entitled to, then I would estimate that CSR revenue was about 1 percentage point smaller as a share of premiums.

Putting these estimates together, I estimate that PMPM CSR revenue grew about 2.1 percentage points slower than claims spending. Plugging this estimate into the equation above, I estimate that PMPM claims spending rose by 3.4 percent from 2016 to 2017. Using the analogous equation for the growth rate of CSR revenue, I estimate that PMPM CSR revenue rose by 1.2 percent over the same time period. I use these percentages as the trend percentage for the respective categories.

Taxes and Fees

To estimate how taxes and fees evolved in 2017, I use a disaggregated approach that takes account of the rules governing each category of taxes and fees. For most categories of taxes and fees, I start with the MLR-based estimate of the PMPM amount paid in 2016 and trend those amount forward using a trend percentage based on the best available data. The exception is federal income tax liabilities, which I predict using a regression relating reported income tax liabilities to pre-tax profit margins in past years. In detail, I handle each category of taxes and fees as follows:

- **Patient Centered Outcomes Research Institute (PCORI) fee:** The trend percentage for this category is the percent change in the amount of the PCORI fee from the amount in effect for plan years ending in December 2016 to the amount in effect for plan years ending in December 2017, as reported in IRS (2018).
- **Transitional reinsurance program contributions:** These contributions are zeroed out for 2017, reflecting the end of the reinsurance program after the 2016 plan year.

- **ACA health insurance fee:** The ACA’s health insurance fee was suspended for the 2017 plan year, so these payments are zero for 2017.
- **State taxes and fees:** This category consists of the amounts reported on Part 1, Line 3.2a-3.2c of the MLR form, which includes state income and excise taxes, state premium taxes, and state-mandated community benefit expenditures. The PMPM amount of these assessments has changed little over time in real terms, so I assume these amounts increased in line with the GDP price index from 2016 to 2017.
- **Federal income taxes:** Federal income tax liability can be positive or negative depending on insurers’ financial performance, so the trend percentage approach used for other categories of insurers’ costs is likely to perform poorly here. Instead, I exploit the fact that there has been a tight linear relationship between the market-wide PMPM underwriting margin (excluding federal income taxes and the ACA health insurance fee, which is non-deductible for income tax purposes) and market-wide PMPM federal income tax liabilities during the 2011-2016 period. I estimate that relationship using a simple linear regression, and I then use the estimated relationship and my predictions for all other categories of revenues and costs to predict the PMPM federal income tax liability that will be reported on MLR filings for 2017.
- **All other taxes and fees:** This category consists of all taxes and fees not included in one of the categories described above. The large majority of this category is accounted for by user fees paid by insurers that offer coverage on the Health Insurance Marketplace. Ideally, I would use a separate methodology to trend user fees and other taxes and fees in this category, but the user fee is not separately reported on the MLR filings. I thus use the following approach to trend this category of taxes and fees

First, I estimate the PMPM amounts attributable to all taxes and fees other than Marketplace user fees in both 2016 and 2017 by taking the amount reported in this category in 2013 and trending it forward based on the observed change in the GDP price index. Second, I estimate the PMPM amount attributable to the Marketplace user fee by taking my estimate of PMPM premium revenue for 2016 and 2017, multiplying it by the federal user fee percentage of 3.5 percent, and multiplying this amount by the share of ACA-compliant enrollment that was inside the Marketplace, as estimated using data from CMS reports on effectuated enrollment and the overall size of the ACA-compliant market (CMS 2017a; CMS 2018a; CMS 2018h).¹⁹ Finally, I sum these two subcomponents and calculate the percentage change in the resulting PMPM amount from 2016 to 2017; I use this percentage as the trend percentage.

¹⁹ This approach does not account for the fact that State-based Marketplaces generally have different user fee structures (Miskell et al. 2015). However, accounting for this difference is unlikely to dramatically change the results.

Projecting Insurer Margins for 2018

Because 2018 is only a bit more than half over, data on insurers' financial performance is incomplete. Nevertheless, data that are available can be used to construct a reasonable projection of insurers' performance in 2018. Similar to the approach used to estimate insurers' revenues and costs in 2017, I generally start with the PMPM estimates for 2017 and increase them by a trend percentage that reflects the best available information on how that category of revenues or costs changed from 2017 to 2018.

The trend percentages for claims spending and administrative spending are described in the main text. Reinsurance program and CSR revenue are zero for 2018 due, respectively, to the end of the reinsurance program after the 2016 plan year and the Trump Administration's decision to end CSR payments. Additional detail on the method used to trend premium revenue and taxes and fees is below.

Premium Revenue

To compute a trend percentage for premium revenue, I combine data from two main sources: (1) the open enrollment public use files released by CMS (2018c); and (2) the HIX Compare database of individual market plan offerings sponsored by the Robert Wood Johnson Foundation (2018). I use these data to estimate the average monthly premium paid in the ACA-compliant market in both 2017 and 2018, and I then use the percentage change from 2017 to 2018 as the trend percentage.

I start by partitioning ACA-compliant enrollees into five mutually exclusive groups: (1) subsidized Marketplace enrollees in states using the HealthCare.gov enrollment platform; (2) unsubsidized Marketplace enrollees in states using the HealthCare.gov enrollment platform; (3) subsidized Marketplace enrollees in states using their own enrollment platforms; (4) unsubsidized Marketplace enrollees in states using their own enrollment platforms and (5) off-Marketplace enrollees in all states. I use different approaches to estimate average monthly premiums in each group.

The CMS open enrollment files directly provide average premiums at the state level for the first two groups of enrollees.²⁰ Unfortunately, the CMS data do not provide information for the other three groups, so I impute average premiums for these enrollees using a regression-based approach. At a high level, I do so by first estimating the relationship between the average premiums enrollees pay (as measured in the CMS open enrollment data) and the premiums of the plans available in each state (as measured in the HIX Compare database). Because the HIX Compare database includes data on plan offerings in all states, both inside and outside the Marketplace, I can then use these estimated regressions to predict average premiums for the three groups for which information on average premiums is missing in the open enrollment reports.

²⁰ These files do report some information for states operating their own enrollment platforms, but there are various internal inconsistencies in these data, so I did not use them. Additionally, the CMS open enrollment data do not account for the fact that some open enrollment enrollees may drop coverage during the year, while others may enter through special enrollment periods. These omissions are unlikely to significantly change the results.

I use different regression specifications for each of the three groups with missing data:

- **Subsidized Marketplace enrollees in states using their own enrollment platforms:** For this group, I estimate two regressions. The first regression is aimed at predicting the *level* of the average premium among subsidized enrollees in 2017. Specifically, I regress the average premium among enrollees receiving premium tax credits on: (1) the statewide weighted average premium for the lowest-cost bronze plan; and (2) the statewide weighted average premium for the second-lowest cost silver plan. The second regression is aimed at predicting the *percentage change* in the average premium from 2017 to 2018; it is specified in the same way as the first, except that the premium level variables are replaced with the corresponding percentage change variables.

I use the first regression to impute the average premium in 2017 among subsidized enrollees in states using their own enrollment platform. I use the second regression to impute the growth rate of this premium from 2017 to 2018, which I then use to calculate the corresponding predicted average premium for 2018.

The left-hand-side variables for these regressions come from the CMS open enrollment data, so the estimation sample is restricted to the HealthCare.gov states. I compute the right-hand-side variables using the HIX Compare data. The HIX Compare data are at the rating area level, so I first identify the lowest-cost bronze and second-lowest-cost silver plan offered on the Marketplace in each rating area.²¹ I then compute a statewide weighted average that weights each rating area by individual market enrollment in each rating area as reported in the CMS risk adjustment program summary report. In New Jersey, Massachusetts, and Idaho, the CMS risk adjustment program data do not provide the needed enrollment information, so I weight rating areas based on rating area population as estimated from Census Bureau data.

- **Unsubsidized Marketplace enrollees in states using their own enrollment platforms:** The procedure for unsubsidized enrollees is identical to the procedure for subsidized enrollees, except that the left-hand side variables in all regressions are for enrollees who *are not* receiving premium tax credits rather than enrollees who *are* receiving premium tax credits. Running a separate set of regressions is important since the relative importance of premiums in different metal tiers is likely to differ between subsidized and unsubsidized enrollees, particularly in 2018.
- **Off-Marketplace enrollees in all states:** No data on average enrollee premiums in 2018 are available for off-Marketplace enrollees, so estimating regressions specific to off-Marketplace enrollees is not possible. Instead, I rely on the regressions estimated for

²¹ A very small number of rating areas lack on-Marketplace bronze plans. I omit these rating areas from the statewide weighted averages.

unsubsidized Marketplace enrollees. However, when generating predictions from these regressions, I use right-hand-side variables calculated based on insurers' plan offerings outside the Marketplace, rather than plan offerings inside the Marketplace.²²

Perhaps unsurprisingly, the regression models described above do a very good job of predicting cross-state variation in both the level of average premiums in 2017 and the percentage change in average premiums from 2017 to 2018. All regressions have an R² of 0.87 or higher. I experimented with various other regressions specifications, including versions that replaced the second-lowest-silver premium with the lowest-silver premium, versions that added the lowest-cost gold premium to the regressions, and versions that interacted the premium variables with Medicaid expansion status. None of these additions meaningfully changed the regressions' predictive performance or the resulting estimates.

The final step in computing weighted average premiums in the ACA-compliant market in 2017 and 2018 is to combine the average premiums estimated for the five market segments. To do so, I require state-level estimates of enrollment in the subsidized on-Marketplace, unsubsidized on-Marketplace, and off-Marketplace market segments. For 2017, I obtain state-level enrollment data directly from CMS effectuated enrollment and risk adjustment program reports (CMS 2018a; CMS 2018g). For 2018, I trend enrollment for subsidized enrollees forward based on the percentage change from 2017 to 2018 in subsidized plan selections as reported in the CMS open enrollment public use file. I trend enrollment in the other two groups based on the change in unsubsidized plan selections.²³

My final estimate based on this procedure is that average PMPM premiums in the ACA-compliant individual market rose by 27.8 percent from 2017 to 2018.

Taxes and Fees

To project how taxes and fees evolved in 2018, I use an approach very similar to the one used for 2017, shifted forward by one year. However, some modifications are required to account for policy changes from 2017 to 2018, as well as data gaps in 2018. The modifications I make are described below:

- **Patient Centered Outcomes Research Institute (PCORI) fee:** To apply the method used for 2017, I require an estimate of the PCORI fee amount for plan years ending in December 2018 since this fee amount has not yet been announced by IRS. Consistent with the statutory procedures for updating the PCORI fee, I estimate this amount by increasing the amount in effect for plan years ending in December 2017 in proportion to the increase in National Health Expenditures per capita from 2017 to 2018. For this purpose, I use the most recent National Health Expenditure Projections (2018f).

²² A very small number of rating areas lack off-Marketplace bronze plans, silver plans, or both. I omit these rating areas when computing the statewide weighted averages.

²³ Unlike the premium data provided for states using their own enrollment platforms, there were no apparent anomalies in the number of people these states reported to have selected Marketplace plans.

- **ACA health insurance fee:** The ACA’s health insurance fee is back in effect in 2018, after having been suspended for 2017. In broad outline, the ACA determines insurers tax liability by allocating the aggregate dollar amount specified in statute (\$13.9 billion in 2016 and \$14.3 billion in 2017) across insurers based on their premium revenue in the prior year. In light of this design, I use the following approach to project these tax payments.

First, I estimate the tax rate per dollar of premium in the prior year by dividing the aggregate amount required to be collected by the total amount of premiums subject to the tax for the 2016 and 2018 fee years, as reported by IRS. Second, I estimate the aggregate amount of tax due in 2016 and 2018 that is attributable to individual market plans by multiplying this tax rate by aggregate individual market premium revenue in the prior year.²⁴ In doing so, I estimate aggregate individual market premium revenue in 2017 by starting with aggregate premium revenue reported in the MLR data for 2016 and trending that amount forward based on the percentage change in aggregate premium revenue from 2016 to 2017 in the SHCE data.

Third, I divide the resulting aggregate amount of tax liability by individual market enrollment in 2016 and 2018 to obtain estimates of PMPM payments for 2016 to 2018. To do so, I use actual individual market enrollment as reported in the MLR filings for 2016. For 2018, I use the estimate of 2018 ACA-compliant enrollment derived earlier when estimating average 2018 premiums, and I add to this an estimate of non-ACA-compliant enrollment derived using a combination of MLR, SHCE, and risk adjustment data.²⁵ Finally, I obtain my final estimate for tax liability for 2018 by multiplying the actual PMPM amount of tax payments for 2016 reported on MLR filings by the ratio of these two estimates.

- **State taxes and fees:** To apply the method used for 2017, I require an projection of the GDP price index for 2018. I use the projection published in CBO (2018).
- **Federal income taxes:** I use the same regression-based approach as for 2017, except that I scale down federal income tax liabilities by the ratio of 0.21 to 0.35 to reflect the reduction in the statutory corporate tax rate in the December 2017 tax legislation.
- **All other taxes and fees:** To apply the method used for 2017, I require an estimate of Marketplace enrollment as a share of all ACA-compliant enrollment in 2018. To derive such

²⁴ Technically, the first \$50 million of premium revenue earned by each insurer is excluded from this calculation. For tractability, I ignore this aspect of the tax rules, but this is unlikely to meaningfully affect my results.

²⁵ Specifically, I proceed in two steps. First, I estimate non-ACA-compliant enrollment in 2016 by comparing total individual market enrollment reported on the MLR filings to ACA-compliant enrollment as reported by CMS based on risk adjustment data (CMS 2018h); risk adjustment data are not available for Massachusetts and Vermont, so I proxy ACA-compliant enrollment using enrollment in the risk corridor universe. Second, I assume that overall non-ACA-compliant enrollment declines by 31 percent in both 2017 in 2018, consistent with the decline I estimate from 2016 to 2017 (for states other than California, Massachusetts, and Vermont) using the combination of the SHCE and risk adjustment data.

an estimate, I use the enrollment estimates derived earlier for the purposes of estimating average premiums for ACA-compliant policies in 2018.

Estimating Premium Increases for 2019 in a Stable Policy Environment

The methods used to estimate the premium increases that would occur in 2019 in a stable policy environment are largely described in the main text. The one exception is the method used to project taxes and fees in 2019, which I described in greater detail here.

In general, I use the same disaggregated approach used for 2018, shifted forward one year. However, I must make some modifications to account for the fact that some data used in the 2018 computations are not yet available for 2019. These changes affect two categories of taxes and fees:

- **ACA health insurance fee:** For this fee, I use the same basic approach as in 2018, but I take a different approach to estimating three pieces of input data: (1) the tax rate for 2019; (2) aggregate individual market premium revenue in 2018; and (3) individual market enrollment in 2019. To derive the tax rate for 2019, I assume that the aggregate amount of premiums subject to the tax grows in proportion to aggregate private health insurance premiums, and I assume that the amount required to be collected grows in proportion to per enrollee employer-sponsored health insurance premiums, consistent with the statutory methodology for updating the aggregate amount of collections. In both cases, I obtain the necessary projections from the most recent National Health Expenditure projections (CMS 2018f).

I derive aggregate individual market premiums for 2018 by multiplication using the previously derived estimates of ACA-compliant enrollment, ACA-compliant premiums, and non-ACA-compliant enrollment in 2018, supplemented with an estimate of average non-ACA-compliant premiums in 2018. To estimate non-ACA-compliant premiums, I start with the estimate of average non-ACA-compliant premiums in 2016 derived earlier using the MLR data and trend it forward to 2018 based on growth in per enrollee spending in employer-sponsored insurance, as estimated in the most recent National Health Expenditure projections. Finally, I assume that individual market enrollment in 2019 is the same as in 2018.

- **All other taxes and fees:** To apply the method used for 2017 and 2018, I require an estimate of Marketplace enrollment as a share of all ACA-compliant enrollment in 2019. I simply use the estimated 2018 share since this share would likely be steady in a stable policy environment.

Appendix B: Detailed Table of Estimates

**Table B1: Per Member Per Month Revenues and Costs
in the Individual Market, 2011-2018**

Component of Revenues or Costs	Full Individual Market			ACA-Compliant Individual Market				
	2011	2012	2013	2014	2015	2016	2017 (est.)	2018 (est.)
Premium revenue	230	236	245	341	351	379	457	584
Reinsurance program revenue	0	0	0	74	46	22	0	0
CSR payments	0	0	0	28	31	34	35	0
Claims spending	186	197	208	389	403	403	416	430
Administrative spending	38	38	43	55	51	50	53	57
Taxes and fees	6	5	3	19	14	13	17	35

Source: Author's calculations based on CMS, NAIC, and RWJF data.

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