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The Great Recession and Workers' Health Benefits☆

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ABSTRACT

During a recession, cost-sharing of employer-sponsored health benefits could increase to reduce labor costs in the U.S. Using a variation in the severity of recession shocks across industries, I find evidence that the enrollment rate of high deductible health plans (HDHPs) among workers covered by employer-sponsored health benefits increased more among firms in industries that experienced severe recession shocks. As potential mechanisms, I study employer-side and worker-side mechanisms. I find that employers changed health benefit offerings to force or incentivize workers to enroll in HDHPs. But I find little evidence of an increase in workers' demand for HDHPs due to a reduction in income. These results suggest that the HDHP enrollment rate increased during the Great Recession, as employers tried to save costs of offering health benefits.

1. Introduction

During a recession, employers have an incentive to reduce labor costs in response to negative economic shocks. This can be accomplished not only by laying off workers, but also by decreasing total compensation for workers. Employers may be limited in the size of the wage cuts that they can implement due to a downward rigidity of nominal wages (Card and Hyslop, 1997; Kahn, 1997; Bewley, 1998; Altonji and Devereux, 2000; Lebow et al., 2003).[1] Since a significant portion of total compensation is paid as non-wage benefits, employers may want to reduce these benefits instead (Lebow et al., 2003; Babecký et al., 2012).[2] Hence, employer-sponsored health benefits could be reduced during a recession.

Previous studies on the relationship between business cycles and employer-sponsored health benefits focused on reductions in the health insurance coverage. For example, Cawley and Simon (2005) and Cawley et al. (2015) examined the negative relationship between state-level unemployment rates and employer-provided health insurance coverage during both the early 2000 s recession and the Great Recession. Holahan (2010) provided a time trend for the health insurance coverage during the Great Recession, while Lambrew (2001) and Collins et al. (2011) demonstrated that employers offered health insurance less often during the early 2000 s recession and the Great Recession. Furthermore, Holahan and Cook (2008) pointed out that employers were less likely to offer health insurance even after the recession of the 2000 s subsided.

Health plans with higher cost-sharing (i.e., the share of health care costs that a beneficiary incurs) are generally cheaper than those with lower cost-sharing. Thus the cost-sharing of health insurance among workers covered by employer-sponsored health insurance (covered workers) could increase during recessions. However, there is little empirical evidence on the relationship between recessions and cost-sharing of employer-sponsored health insurance. In this paper, to fill this gap in the literature, I study the effects of the Great Recession on the high deductible health plan (HDHP) enrollment rate among covered workers.[3] Due to the higher deductibles, HDHPs are cheaper than low deductible

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[1] There are a number of explanations for the downward rigidity of nominal wages. For example, Campbell and Kamlani (1997) explained wage rigidity as a result of information asymmetry between employers and workers based on survey data from employers. Since employers do not want to lose high productivity workers or cause a decrease in workers' effort, they cannot reduce wages as much as desired.

[2] Among the benefit packages, some legally required benefits cannot be reduced by employers under U.S. law. Such benefits include Social Security, Medicare, and unemployment insurance. Health benefits comprise about one-third of the total benefits for workers in the U.S. (Employer Costs for Employee Compensation in December 2007, Bureau of Labor Statistics).

[3] The HDHPs considered as a new strategy for the "post-managed care era" that shifts greater responsibility for medical spending from physicians to patients (Lee and Zapert, 2005).

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health plans (LDHPs). As a consequence, employers can decrease the costs of offering health benefits when the HDHP enrollment rate among covered workers increases.

To the best of my knowledge, this study is the first examining the change in this intensive margin of employer-sponsored health insurance, thus providing a more complete picture of health benefits adjustments over the business cycle. In future recessions, such changes in the intensive margin could become an important factor to study. If the employer mandate of the Affordable Care Act (ACA) is implemented, then the coverage of employer-sponsored health insurance is less likely to reduce during the future recession, while the cost-sharing is more likely to increase.

To examine the effects of the Great Recession, I exploit the fact that the severity of recession shock varies across industries. I compare changes in the HDHP enrollment rate across industries before and after the Great Recession. To implement this research design idea, I use a difference-in-differences (DD) approach based on data from a firm-level health benefit survey. I find that the HDHP enrollment rate increased more among firms in industries suffering severe shocks. Consistent with this result, the HDHP enrollment rate increased the most in the industry with the most severe shock.

Then, in order to provide a more comprehensive understanding of health benefit adjustments during the Great Recession, I investigate both employer-side (or supply-side) and worker-side (or demand-side) mechanisms.

In the first mechanism, employers could change health benefit offerings to force or incentivize workers to enroll in HDHPs. If employers could save costs from the increase in HDHP enrollment rate among covered workers, they also would have an incentive to change health benefit offerings in a way that potentially incentivizes workers to enroll in the HDHPs. I find evidence that employers experiencing severe recession shocks are more likely to only offer the HDHPs. Alternatively, when offering both LDHPs and HDHPs, they make the former relatively more expensive than the latter for workers.

In the second mechanism, more workers could demand HDHPs due to current or expected income reductions during the Great Recession, because they paid less premiums to HDHPs. However, I find no evidence that workers in severely affected industries experienced larger income reductions. I also find little evidence that workers more exposed to larger reductions in expected income were more likely to enroll in HDHPs.

The remainder of this paper is organized as follows. In the next section, I provide a brief background of managed care health plans with the related theoretical issues. In Section 3, I describe the data source and variables used in the empirical analysis. Then, I present the empirical strategy and results in Sections 4 and 5, respectively. In Section 6, I provide concluding remarks.

2. Background

2.1. Managed care health plans

In this paper, I only consider managed care plans, which comprise the majority of employer-sponsored health insurance coverage in the U.S. For example, about 99% of workers were covered by managed care health plans in 2010 (Kaiser Family Foundation/Health Research and Educational Trust, 2010). Further, among these plans, I group the types of health insurance into two categories, HDHPs and LDHPs, to capture the differences in the costs of offering health insurance to employers, mainly due to variations in deductible amounts.

HDHPs are characterized by higher deductibles than other conventional managed care plans. Such plans were established in the late 1990s (Bundorf, 2012), and began to be associated with tax-benefit savings accounts after the passage of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (Shenkin et al., 2014). HDHP enrollees are responsible for paying higher out-of-pocket deductibles before being reimbursed by insurers for medical care expenditures, except for preventive care (Shenkin et al., 2014). For this reason, HDHPs typically have lower premiums than other managed care plans. As noted earlier, employers have an incentive to offer HDHPs to reduce labor costs (Lee and Zapert, 2005). Further, HDHPs are usually managed by the preferred provider organizations (PPOs), which have broader networks and fewer restrictions for medical services than health maintenance organizations (HMOs) or point-of-service (POS) plans (Robinson, 2005; Shenkin et al., 2014).

Table 1
Cost-sharing Markers – Primary Physician Office Visit.

	HDHP	LDHP
Annual General Deductible	$3,302	$490
Does Annual Deductible Apply?	100%	54.4%
Coinsurance rate	9%	2%
Coinsurance rate (out-of-network)	35.3%	48.4%
Out of Pocket Maximum	$5,162	$3,222

Data Source: The EHBS, 2006–2009.

Note: I calculate the average general deductible amounts of single and non-single coverage ($0.5 \times$ single coverage $+ 0.5 \times$ non-single coverage). For most of HDHPs, the coinsurance rates were applied for physician office visits. I convert nominal deductible amounts and out-of-pocket maximum for each year into real values in 2013 dollars using the CPI-U. Some HMOs do not have limitation on out-of-pocket spending because they have almost zero cost-sharing for medical care.

LDHPs include three types of conventional managed care health plans: HMOs, PPOs, and POS. HMOs provide the lowest cost-sharing plans with a limited number of providers. Insured patients are assigned to primary care physicians (PCPs), who refer them to other doctors or hospitals within the network for additional medical treatments. PPOs do not force patients to have PCPs and allow patients to choose physicians or hospitals who are outside the network of providers. The patients are responsible for a greater share of costs when they receive care from out-of-network providers. POS plans are an extended form of HMOs, which allow patients to obtain medical treatment from out-of-network providers, but at a greater share of the costs. POS enrollees must obtain referrals from PCPs when they use network providers.[4]

Table 1 summarizes the average deductible and other markers of cost-sharing, such as the proportion of patients who need to meet their annual deductibles before being eligible for reimbursement, coinsurance rates, and maximum out-of-pocket payments for HDHPs and LDHPs, by using the Employer Health Benefit Survey (EHBS). For conciseness, I only present aspects of cost-sharing for office visits to primary care physicians. The differences in cost-sharing for hospitalization and prescription drugs are similar. I also calculate the averages of the deductibles and maximum out-of-pocket payments of single and non-single coverage ($0.5 \times$ single coverage $+ 0.5 \times$ non-single coverage). I convert the nominal premiums for each year into real premiums in 2013 dollar values using the Consumer Price Index for All Urban Consumers (CPI-U). As the term implies, HDHPs have higher deductibles than LDHPs. In fact, the average deductible of an HDHP is about $2500 more than that of an LDHP. With respect to other markers, HDHPs require higher patient cost-sharing than LDHPs. For example, all patients enrolled in HDHPs are required to pay the annual deductible before becoming eligible for reimbursement, and are also required to pay a higher percentage of total out-of-pocket medical care expendi-

[4] Refer to the following website: http://www.allbusiness.com/human-resources/benefits-insurance-health-types/770-1.html