



# The impact of personal bankruptcy on labor supply decisions <sup>☆</sup>



Daphne Chen <sup>a,\*</sup>, Jake Zhao <sup>b</sup>

<sup>a</sup> Econ One Research, United States

<sup>b</sup> Peking University HSBC Business School, China

## ARTICLE INFO

### Article history:

Received 11 September 2014

Received in revised form 3 February 2017

Available online xxxx

### JEL classification:

J22

J64

K35

E21

### Keywords:

Chapter 7 Bankruptcy

Chapter 13 Bankruptcy

Employment

Labor supply

## ABSTRACT

The Chapter 7 bankruptcy code was motivated by the notion of a “fresh start,” which was justified in part by the Supreme Court on the grounds that it would encourage work incentives. We ask the question, “how does a fresh start affect labor supply?” This question is explored in the context of a model with job search and bankruptcy choices. The model takes into account both the endogeneity and interdependence of decisions in labor and credit markets. The structural approach allows direct assessment of individuals’ labor supply responses given their bankruptcy decisions. We find that Chapter 7 filers on average increase labor supply by 12.3%.

© 2017 Elsevier Inc. All rights reserved.

## 1. Introduction

There are two bankruptcy provisions in the United States, Chapter 7 and Chapter 13. Under Chapter 7 bankruptcy, filers have the ability to protect future income due to the “fresh start” provision where all unsecured debt is eliminated. In contrast, Chapter 13 bankruptcy filers are required to forgo a fraction of their incomes in order to repay creditors. This is one reason why the majority of filings fall under Chapter 7. Out of the total 1.56 million bankruptcy filings in 2004, 1.12 million were filed under Chapter 7 according to the Administrative Office of the U.S. Courts. Chapter 7 bankruptcies however remain on credit reports longer than Chapter 13 bankruptcies – 10 years versus 7 years respectively.

What motivated the creation of a fresh start bankruptcy system in the U.S.? The Supreme Court justified a “fresh start” on the grounds that it would encourage work incentives. In the 1934 ruling involving the Local Loan Company and Hunt (See 292 U.S. 234), the court stated:

*“From the viewpoint of the wage earner, there is little difference between not earning at all and earning wholly for a creditor.”*

<sup>☆</sup> We are indebted to Dean Corbae for his guidance and encouragement. We thank numerous seminar and conference participants, especially Kartik Athreya, Satyajit Chatterjee, Pierre-Daniel Sarte, and the anonymous referees, for insightful comments. The Texas Advanced Computing Center (TACC) generously provided computational resources for this paper.

\* Corresponding author.

E-mail addresses: [dchen@econone.com](mailto:dchen@econone.com) (D. Chen), [jake.zhao@phbs.pku.edu.cn](mailto:jake.zhao@phbs.pku.edu.cn) (J. Zhao).

The above quote takes on an extreme view that without releasing debtors from personal liability and without prohibiting creditors from collecting on those debts, the burden of debt repayment would destroy all incentives to work. This paper asks the question, “how much does a fresh start change labor supply?” The answer to this question is non-trivial because there are two competing effects – “wealth effects” and “borrowing constraint effects” – which cause the benefits from the fresh start provision for work incentives to be unclear. These effects are experienced by both Chapter 7 and Chapter 13 bankruptcy filers. We focus on the work incentives of Chapter 7 bankruptcy filers in comparison to nonfiling, but we also discuss Chapter 7 work incentives in comparison to Chapter 13.

The wealth effect makes debtors reduce work effort after bankruptcy. Once individuals file for bankruptcy, they no longer need to work to service their debt. In addition, individuals can be more selective in their job search. On the other hand, in terms of the borrowing constraint effect, individuals with bankruptcy records have limited access to borrowing because of the change in their credit scores. Such individuals may have to work more in order to self insure against unexpected expenses. Since the effect of bankruptcy on labor supply is ambiguous, this paper builds a structural model and provides a quantitative answer. We seek a deeper understanding of the interdependence of labor and credit market decisions. This is important because labor supply has been an important component of policy discussions. Prior to any discussion of bankruptcy reform, the labor supply response of individuals facing bankruptcy must be understood, which is a major focus of this study.

Because bankruptcy choices are endogenous, Chapter 7 bankruptcy filers tend to have less earnings and more debt on average in both our model and in the data. Moreover, they are more likely to have experienced job loss, and hence Chapter 7 bankruptcy filers may behave differently than the average person in the economy. The self-selection for a fresh start must be considered when evaluating the labor supply implications. Without controlling for endogeneity, the change in work incentives might be underestimated simply because Chapter 7 bankruptcy filers are more likely to have fewer working hours due to job market disruptions, and therefore appear as if their incentives to work are low.

The endogeneity issue is difficult to resolve. One of the popular solutions is to introduce instrumental variables in a regression analysis. This paper takes an alternative approach. Instead of evaluating the effect through regression analysis, we construct a dynamic job search model where individuals are able to both file and choose the form of bankruptcy. This allows us to deal with the endogeneity issues directly since agents’ decision rules are explicitly modeled.

In the credit market, consumers in our model can save or borrow. For those who are in debt, they can discharge their debt through bankruptcy. Furthermore, they can choose to file under either Chapter 7 or Chapter 13. Since the majority of the bankruptcy filers choose to receive a fresh start, most papers only consider Chapter 7 bankruptcy. However, because Chapter 13 bankruptcy is an alternative to Chapter 7, the income garnishment associated with a Chapter 13 bankruptcy can potentially result in changes in labor supply responses. It is therefore essential to allow for both bankruptcy chapter choices in the model.

In the labor market, model agents can choose whether or not to work on the extensive margin and how much to work on the intensive margin. It is essential here that individuals can make labor supply decisions on both margins, because if we compare bankruptcy filers with average people, bankruptcy filers are more likely to experience job loss, so they work less on the extensive margin. If filers have a job, they are more likely to work more on the intensive margin because they have low wealth and are borrowing constrained. Hence the effect of bankruptcy on the two margins of labor supply can be very different.

To measure the effect of a fresh start on work incentives, we adopt the concept of the “average treatment effect on the treated” (ATET) from econometrics (a detailed description of ATET is discussed in the next section). Considering a fresh start as a “treatment,” the ATET calculates the difference in average labor supply for Chapter 7 bankruptcy filers under filing and repayment. A positive ATET suggests that a fresh start improves work incentives, while a negative ATET indicates that a fresh start reduces labor supply. The computation of ATET requires the knowledge of what we observe and what we do not observe. We observe the equilibrium labor supply decision for every filer. However, for the exact same people, we also need to know their labor supply decision if they were instead forced to repay creditors, which is unobservable in the data. To deduce the unobserved labor supply decisions, we therefore run a counterfactual experiment for each filer where we disallow them to make their optimal choices.

With the model calibrated to match labor and credit market statistics, the ATET can be calculated directly because we can solve for each filer’s optimal labor supply decisions under all possible bankruptcy choices. We find that a fresh start mainly increases labor supply for Chapter 7 bankruptcy filers through changes in the intensive margin. Chapter 7 bankruptcy filers provide 12.3% more labor supply than they would have if they were disallowed to file. In contrast, the labor supply increase is only 0.3% if Chapter 7 filers were instead compelled to file for Chapter 13 bankruptcy. These results can be viewed as strong supporting evidence that a fresh start does improve overall work incentives.

This is one of the first papers that introduces labor supply decisions into a model with unsecured consumer credit that incorporates the main characteristics of U.S. consumer bankruptcy law. Most papers in the literature, such as Athreya (2002), Livshits et al. (2007), Athreya et al. (2012), and Chatterjee et al. (2007), do not account for the possible interaction between credit and labor markets by assuming inelastic labor supply. However, it is difficult to answer the question of interest without endogenizing agents’ decisions in both markets. Hence in our model, consumers can participate in both the credit market and the labor market.

This is also the first paper to our knowledge that allows the type of bankruptcy to be determined in an equilibrium setting as in Chatterjee et al. (2007). In this type of equilibrium, financial intermediaries offer a menu of loan contracts to

Download English Version:

<https://daneshyari.com/en/article/5104303>

Download Persian Version:

<https://daneshyari.com/article/5104303>

[Daneshyari.com](https://daneshyari.com)