

short summary of what question the project answers, what methods are used, and any policy (or business) implications from the findings.

1 Introduction

Part of the challenge inherent in Economics is that not every subject of interest can be precisely thought of in terms of money and utility. Chief among such subjects is the economic value of human life. This paper seeks not to assign a value to life but to demonstrate through a case study that, in certain situations, data and economic theory can be used to estimate how a particular policy reflects the value placed on life by the policymaker. The case study in question is the pricing choices made by the manufacturers of life-saving, patent-protected drugs. This eliminates many confounding elements that would muddle the conclusions that could be properly drawn from the analysis. By drawing from monopolies, I eliminate competitive market pressure as a pricing factor and, by limiting the analysis to life-saving drugs, I am able to identify the relationship between pricing and human life as directly as possible. Recognizing that the supply side of a market includes much more than the firms, this paper does not assign any share of responsibility to any particular actor. [as an example, corporations have a responsibility to their shareholders that they remain profitable, so that'll influence their decisions. however, that means that their shareholders have made a decision to maintain profitability of their investments, potentially at the cost of human life. Because there's no feasible way to identify all of those factors, I'm limiting the conclusions drawn to "somewhere in the supply side of the market" rather than specifying the firm or the shareholders or anyone else. Should I explain that here or put it somewhere else?] Following the introduction, this paper proceeds with a review of the literature surrounding the historic value of human life in economic terms, as well as pharmaceutical pricing practices. The next section will detail the data used to construct this analysis, followed by an explanation of the empirical methods, the analysis of the results of those methods, and the larger policy recommendations that

come about as a result.

2 Literature Review

[I want to hold out on my lit review for a bit until my grad research project takes a bit of a more definite direction. Much of the lit review will likely be drawn from the analysis done on sources used in the other project]

3 Data

FDA Patent Expiry data will be used to identify which drugs will be included in my analysis, as well as a preliminary analysis to determine what kind of effect patent expiry and, by extension, patents themselves, have on pricing policy. The Federal Medicaid pricing database will, of course, be used to track the price of drugs over time. Iterations of this database exist over many years, so it can be used across the timeframe of the analysis. I'll also look at financial report summaries for the drug manufacturers to ensure that, by annual profits and dividends paid out, that there exists the capacity for these companies to price lower if they so choose. Any company that doesn't meet that requirement would be removed from the analysis, because I'm trying to isolate decision-makers with as much free rein as possible in their pricing decisions. CDC death and mortality data will be used to draw the degree to which a particular drug can lower mortality for different disease. This will be combined with CDC data on the number of people afflicted with a condition in the US to calculate a value for how much life would theoretically be saved if a particular drug was to be made available to anyone. (more details in the methods section)

4 Empirical Methods

In the interest of making the most conservative estimate possible, I am going to evaluate only the effect of drug pricing on the 27 million uninsured americans. (because the argument can be made that companies can price higher because insurance companies can pay for it). So what we're looking for is the amount of uninsured people afflicted with a particular condition who would be likely unable to afford that drug at its current price point. Using that data and the differential between the status quo and a situation in the case where the drugs are priced at production cost, I can estimate how much money has been saved at the cost of how many lives There will be an equation to make this clearer. [There will be a discussion here on monopolies and how the monopoly model informs this model] Model currentPrice: Price of a drug Afflicted: how many uninsured people have a particular disease (if exact number is unavailable, can be estimated) volumeSold: units of a drug sold in a year productionCost: cost to produce a drug canAfford: Estimate of the amount of people able to afford that drug in the status quo drugPremium: Basically this is a value for how much a particular drug lowers the chance of death from a condition livesSaved:(Afflicted-canAfford)*drugPremium this is a probabilistic value of how many lives would theoretically be saved if the drug was available freely profits: currentPrice*volumeSold-productionCost profits/livesSaved reflects how many dollars the company has gained per person killed by the decision to price above production cost. This will be calculated at the company level

5 Research Findings

Yeah this isn't done yet

6 Conclusion

Basically the thesis of this argument isn't really about healthcare or pharmaceuticals or the evils of capitalism or something like that. What I try to show here is that policymakers/firms/individuals don't get to pretend that "economics" absolves responsibility of moral value. If I'm able to trawl through datasets and put together a simple model to estimate the tradeoff between lives and profits implicitly made by these pricing decisions, then firms have the capacity to do the same, with much more precision. Therefore, making decisions in terms of only dollar amounts is a choice, whether implicitly or explicitly. There are a number of limitations on the particular conclusions drawn here (e.g. that executive salaries and dividends aren't necessarily elective decisions, because they need to attract talent and funding). However, the overall argument remains unaffected; whether or not policymakers and firms think in these particular terms, the tradeoff is inevitably being made. The only policy recommendation is that values are interrogated and reflected in decision-making. If pharmaceutical executives was to be confronted with the value placed on life by their price decisions and business continued as usual, that would be their right. The only difference would be that they will have lost the opportunity to pretend they haven't thought about the impact that they have. It is my firm belief that if lives were explicitly valued, and decisions at every level were to be made in such terms, then the corporate structure of our world would look differently. But maybe that's wishful thinking.