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How to Maximize a Minimum

Ironically, this tutorial has never addressed the anti-poverty policy that has received the most press recently: the minimum wage. "Fight for $15" demonstrations and the approval of minimum wage increases in several states and cities have reapplied pressure on the Federal Government to raise the country's lowest wage. Still, the overall impact of such a pay raise is highly contestable. Basic economic theory predicts that a minimum wage increase will decrease employment, while certain empirical analysis has concluded that raising the minimum wage actually creates jobs. Regardless of how a modest increase in the minimum wage affects employment, it will be a beneficial policy to pursue if the primary objective is reducing poverty. First, such a wage increase has shown to disproportionately benefit the poor through several financial channels. Second, if there is a negative employment shock, that shock will not affect the impoverished. Lastly, price increases that result from the wage hike can be combated with a transfer program that utilizes the increase in tax revenue from the wage hike. While such a transfer is imperfect within the current American social welfare policy framework, it will ensure that a minimum wage increase will be a beneficial to a large majority of America's poor.

The most obvious reason for raising the minimum wage in order to fight poverty is that it will increase income for the impoverished who work minimum wage jobs. Aaronson et al. (2011) find that a 1 dollar raise in the minimum wage increases income by $250 per quarter for households with adult minimum wage earners. This group provides a reasonable representation of the working poor since these adults provide a large portion of familial income which implies their families have lower income. While it is almost trivial to argue that a minimum wage increase will increase earnings for some low income workers the income injection leads to larger increases in consumption through other financial channels. Aaronson et al. (2011) find the rise in income due to the minimum wage increase allowed for increased borrowing for certain credit constrained households. This borrowing increased consumption for families with an adult minimum wage earner by $700 per quarter.[1] The income injection the increased minimum wage provided for some families enabled them to further increase consumption by increasing borrowing.

While increases in income and consumption may also occur at other parts of the income distribution due to a minimum wage increase, a larger proportion of individuals that benefit are impoverished and the size of the benefit is larger for those individuals. For instance the increased borrowing which Aaronson et al. (2011) observe is likely limited to poorer families because poorer families are more likely to be credit constrained. In terms of more direct benefits received from the wage increase, Card and Krueger (1995) find that roughly 43% of the benefits from a minimum wage increase are concentrated in the lower 3 deciles of familial income.[2] MaCurdy (2015) observes that poorer families receive a similar gross benefit from a minimum wage increase, and that after taxes are taken into account the lower 2 quintiles of the income distribution benefit significantly more than the 3 higher quintiles.[3] All three of these works indicate that lower income workers gain the most from an increase in the minimum wage. Hence the income and consumption benefits of the minimum wage exhibit redistributive tendencies and by doing so work to reduce poverty.

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[1], Daniel Aaronson and Agarwal, Sumit and French, Eric, "The Spending and Debt Response to Minimum Wage Hikes" *FRB of Chicago Working Paper* No. 2007-23. (May 29, 2008). 23-24

[2]David E. Card, and Alan B. Krueger. *Myth and Measurement: The New Economics of the Minimum Wage.* Princeton, NJ: Princeton UP, 1995. Print. 285

[3]Thomas MaCurdy. "How Effective Is the Minimum Wage at Supporting the Poor?" *Journal of Political Economy.* Vol. 123, No. 2. (April 2015), 513

Unfortunately, these benefits must incur costs, because the wage hike artificially directs resources towards low wage workers. One cost that many opponents of the minimum wage cite is reduced employment. Stigler (1946) claimed that increased unemployment that results from a minimum wage harms some of the impoverished that such a policy seeks to help.[4] However, there is considerable evidence that rejects Stigler's conclusion, some of which points to actual gains in employment due to a minimum wage hike. Card and Krueger (1995) note that there are many studies that indicate that a minimum wage increase has an insignificant, slightly positive or slightly negative effects on employment. While these findings make little sense in the framework of a competitive labor market several economist have theorized labor market structures which support them. Bhaskar et al. (1999) theorize that the labor market is not perfectly competitive but rather represents a form of competition called competitive monopsony. In this model firms have market power in setting their wages due to non-wage characteristics of employment. The minimum wage works in the same way a price ceiling works to regulate a monopoly. In order to maximize profits with these increased costs firms have to increase labor inputs, raising in-firm employment. While their model allows for employment loss due to firm exit, it provides a mechanism through which employment could rise with a wage increase.[5] Both theory and empirical findings suggest that the minimum wage may not reduce employment like many opponents of the minimum argue. In fact, employment may rise overall.

Even if a negative employment shock in a competitive labor market occurs like Stigler (1946) predicted, it is unlikely the poor minimum wage workers will lose employment. Recent work has demonstrated that those impacted by an employment reduction due to minimum wage

[4]George J. Stigler, "The Economics of Minimum Wage Legislation" *The American Economic Review*. Vol. 36, No. 3 (Jun., 1946),, 358-359

[5]Bhaskar, V. and To, T. "Minimum Wages for Ronald McDonald Monopsonies: a Theory of Monopsonistic Competition." *The Economic Journa*l, 109: (1999), 190-191

increases are not the most financially unstable. Lee and Saez (2012) theorize that the people who lose their job due to a higher minimum wage will be those who receive the lowest surplus from working. They argue that because almost all employment reduction takes place on the extensive margin, an employment reduction is a result of low surplus laborers leaving the labor market.[6] The poor receive higher marginal utility from working because any increase in income causes an increase in consumption of necessities like food and water. Lee and Saez's theory implies the poor will be rather unaffected by any change in employment due to a minimum wage increase as they are not the demographic who will leave the labor force following a minimum wage increase.

Empirical evidence supports Lee and Saez's findings. Neumark and Washer (2007) observe that most of the unemployment effects of the minimum wage is concentrated among secondary earners and teenagers. In other words, families rely little on the income from those that lose their jobs and thus these job losses have a minimal effect on quality of life.[7] Other studies suggest that that minimum wage induced unemployment was concentrated among younger workers, who receive less utility from working.[8] Adults are more likely to be the sole income providers for either themselves or their families which implies they are more likely to be in a poorer household and gain a lot utility from working. The empirical evidence suggests that if there is a change in employment due to a minimum wage increase it will likely not affect the impoverished. Thus, if the primary goal of increasing the minimum wage is reducing poverty, employment effects should not be cause for concern as they are likely insignificant, possible positive and will not change employment for the impoverished if they are negative.

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[6] David, Lee and Emmanuel Saez. "Optimal Minimum Wage Policy in Competitive Labor Markets." *Journal of Public Economics*, Vol 96. No. 9 (2012) 741-742

[7] Ibid. 742

[8] MaCurdy (2015) 502-503

That said, the costs of a minimum wage increase must be imposed somewhere in the economy. Bahker et al. (1999) note that their model predicts that profits are likely to fall; thus the cost of the wage increase will be placed partially on employers.[9] MaCurdy (2015) argues firms will minimize such profit losses by pushing these excess costs from the wage increase onto consumers by raising prices.[10] These increases should be of particular concern if they disproportionately affect the poor and/or significantly harm the poor who do not have a minimum wage earner and thus do not receive the income benefit associated with a wage increase. MaCurdy notes that the industries that have the highest number of minimum wage laborers are those that provide a disproportionately large share of services and goods to the poor relative to their budget size.[11] Hence, not only will the benefit the poor receive be diminished due to these increased costs, the poor who do not have a minimum wage earner in the family will likely be considerably worse off. While MaCurdy still estimates that the minimum wage has a positive and significant redistributive effect, it is diminished by price increases.[12] These costs not only impede poverty reduction but also inflict economic harm on certain subsets of the impoverished population.

In order to maximize the benefit the poor receive from the minimum wage, they must be compensated for these costs. A government transfer could do just that by providing income to the poor that would offset price level rises. A transfer that is coupled with a minimum wage increase, could even be revenue neutral for the government. Many minimum wage workers must pay federal income tax because they are either not impoverished or claimed as a dependent on their parent's tax return. A minimum wage hike will increase income tax revenue because before tax

[9] Bhaskar et al. (1999) 194-195
[10] MaCurdy, (2015) 499
[11] Ibid. 520-522
[12] Ibid. 526-527

income will go up for those laborers. MaCurdy observes that the government collects roughly 15% of the increase in income that results from a rise in the minimum wage.[13] This 15% provides the revenue to enable a redistribution to the poor which combats the incurred costs of increased prices. MaCurdy estimates that if the revenue was directly transferred to the impoverished it would more than offset any increase in cost resulting from a rise in the minimum wage.[14]

No such program exists in the United States that would allow for fluid transfer to all the impoverished negatively affected by the pay increase. Still, there are programs that could provide mechanisms for performing such a transfer. One such program, the Earned Income Tax Credit (EITC), could provide the additional benefit of magnifying the redistributive effect of any increase in the minimum wage as income gains will result in larger credits for some recipients. Lee and Saez (2012) notes that wage subsidy programs and minimum wage policies are complementary because of this magnification and because the minimum wage keeps employers from dropping nominal wages in response to an increase in work subsidies.[15] Hence, implementing an EITC expansion and a minimum wage increase at the same time could magnify the effects of the two policies and noticeably increase the benefit the poor receive from the subsidy increase. Moreover it could help mitigate the costs a minimum wage increase imposes on impoverished laborers who do not benefit a minimum wage increase.

However, the EITC would solely benefit income earners. The poor who are unemployed would be not benefit from an expansion in the credit. Hence, if the minimum wage increase was to have a unanimous positive effect on the impoverished the coinciding transfer that took place

[13] Ibid. 514
[14] Ibid. 530-531
[15] Lee (2012) 744-745

with the wage increase would have to involve other government programs. As already noted, there is no one program that can positively benefit every impoverished individual in the United States through a transfer because of restrictions in American social welfare programs. For instance, the Supplement Nutritional Assistance Program (SNAP) cannot account for price increases for other necessities, like clothing. Temporary Assistance to Needy Families (TANF) and Supplement Insurance Income (SSI) are only accessible by certain demographics. Even utilizing a combination of these policies that includes the EITC will likely not offset the cost the minimum wage increase incurs on every single person who is impoverished.

Still, performing such a transfer would offset the cost of higher prices for a large portion of the impoverished population. For instance, SNAP program take up is well over 50% and thus a majority of the impoverished could be compensated for food price increases. MaCurdy's calculations indicate that the aforementioned transfer would most definitely offset price increases in the aggregate, even when accounting for likely administrative costs.[16] While it is an imperfect solution, it is still a highly useful way to prevent price increases from impeding poverty reduction that stems from a rise in the minimum wage. The fact that the only known cost to the poor that result from a minimum wage increase can be largely offset means that a policy that involves increasing the minimum wage in an effort to combat poverty can be an effective way to increase the income of most impoverished Americans. Since the policy already has an overall redistributive effect, preventing it from harming others who are impoverished assures that almost everyone of lower income benefit from the redistribution of income due to a minimum wage increase. Thus the revenue increase that results from a minimum wage increase can ensure that said increase is beneficial to nearly everyone in poverty and very beneficial on average.

[16] MaCurdy (2015) 530-531

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