CM7: MINIMUM PRICES (3/28/21)

SOME, BUT *NOT* ALL, OF WHAT YOU SHOULD KNOW

1. Is the minimum wage a price floor or a price ceiling?

2. How do economists assume that the unskilled wage is determined?

3. What is the difference between the unemployment and employment effects of the minimum wage?

4. What is the effect of the minimum wage on workers benefits and the quality of their jobs?

5. How does the minimum wage cause a DWL?

6.In what sense does the minimum wage prohibit some voluntary trades?

7. What does the empirical literature say about the effects of the minimum wage on employment?

8. Are low wages necessarily the same thing as low incomes?

9. Why is the minimum wage a poorly targeted policy?

10. Who gains most from the minimum wage?

11. What is a Negative Income Tax? How does it work? What are its main advantages and disadvantages?

12. What is a Guaranteed Income?

13. Why would encouraging low-income teenagers to increase their human capital be a long run alternative to the minimum wage?

1. MINIMUM PRICES

1. A **minimum price** is a price set by law ***above* the equilibrium price** and *enforced by legal penalties*; minimum prices are referred to as ***price floors*** because they establish a limit *below* which the price of the good or service may not fall. The *minimum wage* is an example of a *minimum price* and it applies to *unskilled labor* – such as workers in fast food chains, hotel cleaners, workers in retail chains like Walmart – since skilled labor, which embodies significant *human capital (education and training)* will earn more than the minimum wage.

2. The US Minimum wage was introduced in 1938 at a value of 25c per hour. The current Federal minimum wage is $7.25 per hour for most workers (seasonal employees, agricultural workers, and workers working for employers with less than 6 employees receive less per hour). The minimum wage that has to be paid is the higher of the Federal, State or city minimum wage. Since the Washington state minimum wage is $13.69 since January 1, 2021, the minimum wage is $13.69 in this state.

https://www.thebalancecareers.com/2018-19-federal-state-minimum-wage-rates-2061043

https://www.thebalancecareers.com/exempt-and-a-non-exempt-employee-2061988

A problem with the Federal minimum wage is that it applies to all states equally, although *labor markets will vary widely across states*. What is considered a reasonable wage in Bellingham would not be in Manhattan or rural Mississippi.

3. There is a heated debate about whether the Federal minimum wage should be raised to $15 by 2025. The plan was to increase the federal minimum wage in five steps over five years, beginning with an increase to $9.50 this year and ending with a $15 minimum wage in 2025. Each year after 2025, the minimum wage would automatically increase in line with changes in the median hourly wage in the economy. There seems to have been a general perception that the $15 minimum wage would have been increased as soon as the bill passed the Senate – bad politics for both advocates and opponents of the "$15" minimum wage.

The median wage in 2019 was $20.20. The Federal minimum wage is currently only 36% of the median hourly wage, down from 52% in 1968. (The median is an average that divides a distribution into two equal halves. So, half of all workers earn less than the median wage and half earn more than the median wage.)

3. Washington was the first state to index the minimum wage – adjust the minimum wage for inflation. (Economists are grateful to the people in Olympia because they provide us with a data set that could potentially allow us to study the employment and other effects of the minimum wage!)

http://blog.seattlepi.com/seattlepolitics/2015/01/02/states-raise-minimum-wage-were-tops-but-not-for-long/ -23925101=0

4. From an analytical point of view *minimum and maximum prices are mirror images of one another*; the effects of one type of policy will be matched by similar effects of the other policy – excess demand with maximum prices and excess supply with minimum prices, etc. If you remember this it should help you

understand the analysis better. In the tests it is very important for you to decide which policy is which.[1]

2. POSITIVE vs NORMATIVE[2]

1. It is convenient to distinguish between *positive* and *normative* statements. A **positive** statement is **a statement about what is the case**. Disputes about positive statements are, in principle, resolvable by an appeal to facts. Sleeman is the strongest economist in the world is a positive statement. We might decide whether the statement was true or false by determining which economist can bench press the greatest weight. (I expect that there are women economists who can press more than I can.) India will have a GDP that will be twice as large as the US GDP in 2050 is also a positive statement although *you* will have to wait until 2050 (**I** would be 112 years-old then) to determine if it is true or false.

There are alternative facts, but not in the Fox News sense. GDPs can be compared by say, converting yen into dollars using exchange rates or by using a technique called purchasing power parities (PPPs). The US GDP is the same using either technique – you don't convert dollars into dollars at any rate other than 1 to 1. In 2019 US GDP was about $21.44 trillion and China's was about $19.4 trillion using the exchange rate conversion; using PPPs US GDP was about $21.44 trillion and China's was about $27.31 trillion. So, it was correct to say that the US was the largest economy in the world if you use exchange rates but China was the largest if you use PPPs. Economists prefer the PPPs for a variety of reasons.

2. A **normative** statement is a statement about **what should or ought to be the case**. *Normative statements involve value judgements.* We do not have a way to resolve disagreements about values.

3. "Raising the minimum wage *will* increase the incomes of employed low wage workers" is a positive statement because we can go out and make observations on both the levels of the minimum wage and the corresponding income levels of the group that we identify as low wage workers. "We *ought* to raise the minimum wage because it will make low wage earners better off" is a normative statement. Who knows what ought to be the case?

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[1] A simple mnemonic: remember that rent **c**ontrol (CM6) includes the letter c as does **c**eiling. A ceiling is clearly a limit to how high you can climb up the wall of your room and therefore rent control is an example of a *maximum* price. The minimum wage is obviously an example of a minimum price and therefore a price floor, you cannot – most of you – sink below the floor.

[2] Philosophers have argued for over sixty years that the distinction between positive and normative statements is bogus. But for economists' purposes it is helpful.

4. The thing to remember is that you should not impose your value judgements on your analysis and that economists **cannot** claim that economic analysis shows that one economic policy is better than another one – policy prescription/advocacy involves value judgements. Economists have no greater moral authority than anyone else. The role of the economist is to determine the likely effects of policies. Policy makers and voters can then use this information to inform their decisions.

2. A FREE MARKET IN LABOR

1. In Figure 1 below the for *demand* for *unskilled* labor (*by **firms***) and the *supply* of labor (*by **individuals***) are such that the market clears at an *equilibrium wage* W_e (say, $5.00 per hour) and an *employment level* (number of workers employed per week) of Q^e.[3] Everyone who wishes to work at $5 an hour can find a job, every employer who wishes to hire labor at $5 an hour can find an employee.

Assuming that the workers work for 40 hours per week (a reasonable approximation for minimum wage earners with dependents) and that they work 50 weeks per year their annual incomes are only $5.00 x 2,000 = $10,000 per year, hardly enough to support an individual and certainly insufficient to support a household of two adults, even less one with two adults and two children. However, very few minimum wage workers are the major breadwinners in families.

3. THE MODEL

1. The analysis assumes that: 1) firms attempt to maximize profit by hiring labor until what the last worker adds to revenue is just equal to what the last worker costs in wages and benefits (benefits are likely to be very small for this type of employee), 2) that the firms hire more labor at lower wages and less labor at higher wages (***the demand for labor is negatively sloped***), 3) market for unskilled labor is close to being ***competitive***[4], and 4) that firms sell their output in competitive markets. The first two assumptions seem reasonable for markets for unskilled labor; the third assumption has been challenged in the last 30 years. The last assumption is probably valid for fast food restaurants and motels, which

[3] Note that *in labor markets firms are on the demand side of the model and individuals are on the supply side.* Firms are still attempting to maximize profits and workers are attempting to maximize satisfaction.

[4] The controversial work by Card and Kreuger discussed in section 16.9 assumes that the market for unskilled labor is not competitive but is better described as monopolistically or imperfectly competitive (CM25C).

employ a lot of unskilled labor, where profit margins are low.

2. The model is a partial equilibrium, which means that we ignore interactions with other markets – the uncovered sector (where the minimum wage does not apply) and the market for skilled labor.[5]

3. It is assumed that the market is always in equilibrium and adjusts smoothly and instantaneously when disturbed. This is very unlikely to be true of real-world labor markets, which have substantial "frictions" that cause workers to stay unemployed for long periods of time. Wages are usually rigid downward – *workers resist wage cuts and employers almost never suggest lowering wages even if there is substantial unemployment*.

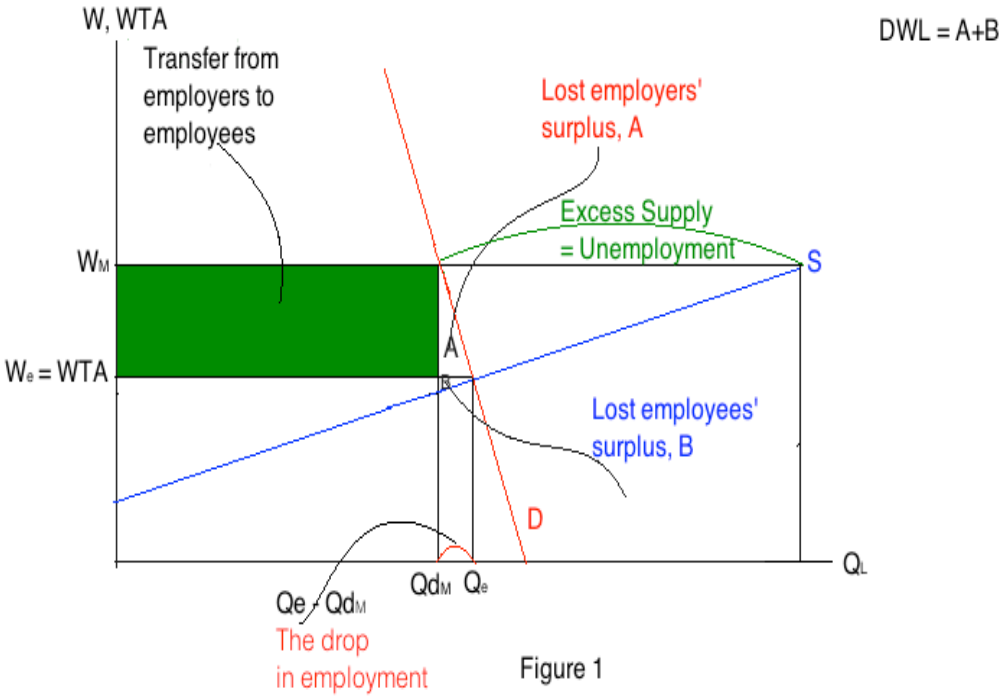


Figure 1

4. IMPOSITION OF A MINIMUM WAGE

1. We now introduce a minimum wage (W_M) ***above*** W_e. This causes an *excess supply* of labor $Q^s_M - Q^d_M$.
(**Figure1 has no Q^s_M!** Horror!!!! There is Q^s_M should be *where the black vertical line below S cuts the horizontal axis*. Sorry, but re-drawing the diagrams is a **lot** of work! I am only practically perfect in every way!).

[5] We could construct a model with separate markets for covered and non-covered workers and for skilled labor but that would make your life more complicated. In such a model the employment effects of the minimum wage are ambiguous.

Because the wage cannot adjust downward because of the legal restraint the excess demand will persist. However, *while the excess demand will show up as unemployment*, ***economists concentrate on the effect of the minimum wage on employment,*** *i.e. they are concerned with* $Q^e - Q^d_M$, which is *the loss in jobs associated with the introduction of the minimum wage.*

$Q^s_M - Q^e$ is a measure of the number of workers who will enter the labor market because of the higher wage W_M. These workers were previously without jobs but were not in the labor market because the low equilibrium wage was not sufficiently enticing to make them trade-off more income for less leisure or non-market work. At W_M these workers will look for a job but are unable to find one (and therefore they are now counted as unemployed). These persons are unemployed and suffer psychological distress because they cannot find jobs but *their work status has not changed*: they didn't have a job before the minimum wage was introduced and they still do not have a job.

5. THE EMPLOYMENT EFFECT

1. *The fall in employment follows from our assumption that firms are profit maximizing, which means that they will hire fewer workers if the cost of each worker increases: we assume that the demand curve for labor is negatively* sloped. ***So long as the demand curve for labor is negatively sloped the increase in the wage from, We to*** W_M ***must lead firms to reduce employment.***

However, although in the static model the minimum wage causes a fall in employment, ***in the real world the employment effects are most likely to reduce the growth of employment*** *rather than to cause employees to be fired.* Your job in the library may no longer be there when you return to campus if the university raises wages in line with minimum wage increases (as it does). (In Figure 2 we end up at Q2 rather than Q2′ etc.)

2. Could the individual firms accept lower profits and use these to pay the higher wage? Not if the product market is competitive in which case each firm is already just barely making the minimum profit necessary to keep it in the industry. The industry as a whole can raise its price to cover the extra wage cost but that may cause a fall in the market/industry demand for the product, which would mean that employers as a whole would hire fewer workers.

If the price rises then this would mostly hurt low-income households because these households spend more of their income on the low-quality goods and services like fast food and cheap hotels that employ minimum wage workers.

6. OTHER EFFECTS

1. Because employees would rather have a job paying less than the legal minimum than not have a job at all and receive nothing, some workers will work for less than they are legally entitled to; this is like renters paying above the legal maximum rent. *The minimum wage is a legal barrier to employees and employers making mutually advantageous voluntary trades.* Unions will report employers who pay below the legal minimum, even if this leads to fewer people being employed. Unions gain from the minimum wage because it raises the cost of non-union labor which potentially competes with the higher paid unionized workers.

2. Employers can *lower the quality of the jobs* to help recoup the money paid in higher wages (just as landlords can lower the quality of apartments) – longer hours, shorter breaks (benefits will be minimal in these kind of jobs), less overtime pay, and perhaps more work per hour (more books re-shelved). Because there is an excess supply of labor, the employees have little bargaining power to resist the deterioration in job quality.

7. THE DEAD WEIGHT LOSS OF THE MINIMUM WAGE

1. In Figure 1 above we see that at Q^d_M the workers' surplus is reduced by the lower triangle labeled B and that the employers' surplus is reduced by the upper triangle labeled A. *The minimum wage imposes a Dead Weight Loss*, DWL = A+B.

There is also *a transfer of income/surplus from employers to employees – the green rectangle.* Economists are not supposed to make value judgments about whether workers or employers should gain or lose. The new equilibrium is not efficient because MC does not equal MB at Q^d_M, workers and employers would gain (in aggregate) if the wage returned to W_e.

There will also be inefficiencies because there is no guarantee that the highest productivity workers will be those who stay employed. In the real world there will be a matching problem just as there was in the rent control case.

2. Notice that before the minimum wage was introduced there was an efficient outcome (MC=MB) and the equilibrium was Pareto optimal (no one could be made better off without making someone worse off). But once the minimum has been imposed the new equilibrium will also be Pareto optimal since removing it must surely make at least one worker worse off.

8. THE MINIMUM WAGE PROHIBITS MUTUALLY ADVANTAGEOUS VOLUNTARY TRADES

1. At Q^d_M workers would be willing to accept less than W_M because they were voluntarily accepting W_e before the minimum wage was introduced. (This does not mean that they were happy to work for W_e but they preferred working and getting some income to not working and not getting any income; they preferred the rock to the hard place.) The lowest wage they would accept and still work Q^d_M hours is given by the height of the supply curve at Q^d_M.

At the old equilibrium wage, W_e, the firm was willing to hire Q_e units of labor but that employment level is not profit maximizing if the wage rises to W_M. At W_M firms maximize their profits if they hire less labor, Q^d_M.

The minimum wage makes it illegal for employees and employers to engage in trades that they would undertake voluntarily. (Would you be in favor of a Washington State law that made it illegal to pay graduates from Washington's state supported universities less than $150,000 in their first job?)

2. Economists stress the fact that the minimum wage causes inefficiency, the lost jobs would have generated larger gains from trade, A + B. Non-economists would note that the minimum wage makes those workers who remain employed better off (represented by the green rectangle), and those workers, who would have found a job at W_e but who cannot find jobs at W_M, worse off (everyone between Qe and Q^d_M). Being unemployed means not simply a loss in income and status – a major determinant of Happiness (CM17), especially for men – but also leads to depreciation of human capital as work skills are eroded and job seniority is lost, while the workers who gain would have worked voluntarily for W_e and so their gain is "icing on the cake". But economists cannot tell you whether the imposition of the minimum wage was a good or a bad idea.

Notice that although I have been analyzing the effect of introducing a minimum wage, the analysis is equally valid if we wish to discuss whether to raise the minimum wage.

9. EMPIRICAL EVIDENCE

1. The empirical work on the minimum wage suggests that it isn't a big deal – the employment effects are small, so small that they are difficult to measure (and studies that show no effect on employment or increases in employment are difficult to get published). However, the employment effects of an increase in the minimum wage are hotly disputed – I think this is because economists have been indoctrinated to think in terms of efficient markets. In the mid-1990s two

well-known labor economists, Card and Kreuger, published papers, and then a book, arguing that the minimum wage *increased* employment. Their research received considerable media coverage, and continues to be cited in the current debate about raising the Federal minimum wage. However, subsequent research by Neumark and Wascher and others found major flaws in Card and Kreuger's empirical work, and their theoretical arguments have been treated with skepticism.

http://www.amazon.com/Myth-Measurement-David-Card/dp/0691048231/ref=pd_bxgy_b_img_y

http://www.amazon.com/Minimum-Wages-David-Neumark/dp/0262515083/ref=pd_bxgy_b_img_y

2. Some of this literature seems to me to display a strong of ideological bias. James Buchanan[6], an economics Nobel prize winner, wrote in the Wall Street Journal on April, 25, 1996: "The inverse relationship between quantity demanded and price is the core proposition in economic science, which embodies the presupposition that human choice behavior is sufficiently rational to allow predictions to be made. Just as no physicist would claim that "water runs up hill," no self-respecting economist would claim that increases in the minimum wage increase employment. Such a claim, if seriously advanced, becomes equivalent to a denial that there is even minimal scientific content in economics, and that, in consequence, economists can do nothing but write as advocates for ideological interests. Fortunately, only a handful of economists are willing to throw over the teaching of two centuries; we have not yet become a bevy of camp-following whores." In 2021 most economists and most labor economists espouse views that Buchanan would have characterized as those of "camp following whores.

3. Note that Buchanan's argument is about the *logic* of the economics of the minimum wage, armchair theorizing, it is not about the empirical *evidence*. I do **not** believe (I could be wrong – never you say!) that the evidence for a *positive* employment effect is convincing, but I also believe that *the empirical evidence is largely consistent with a statistically insignificant impact on employment* ***for the sort of minimum wage increases that are usually implemented***. There are four factors to consider: (1) employers are concerned with *real* wages not nominal wages; many minimum wage increases simply catch up with the inflation which has eroded the purchasing power and employer costs of the previous minimum wage increase; (2) it is lower *employment growth* that likely to be the consequence of an increase in the minimum wage not layoffs; (3) *the available*

[6] I knew Buchanan. He was an extremely nice man and a far better economist than I could ever be, but I disagreed with his views on policy.

data spread is too small to pick up the effects of large changes in the minimum wage which might have significant employment effects (see Figure 3); and (4) because the changes in the minimum wage are known before they are implemented *some employers may react pre-emptively* and reduce hiring now, rather than in say, two years' time when the proposed minimum wage increases are actually implemented. These factors make measuring the impact of the minimum wage change very difficult (Seattle's proposed $15 an hour was phased in over three years).

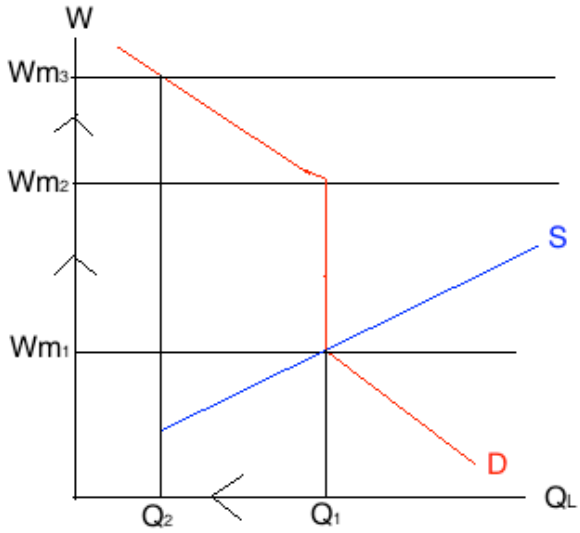
https://www.cnbc.com/2020/01/02/seattle-passed-a-15-minimum-wage-law-in-2014-heres-how-its-turned-out-so-far.html

4. I believe that an increase in the minimum wage would begin to bite into employment if it caused the cost of unskilled labor to rise significantly – the 2019 increase in the Federal minimum wage largely replaced purchasing power that had been erode by inflation during the long period in which the nominal minimum wage was more or less constant. If the Federal minimum wage was increased to $25 or $80 or $800 per hour there would surely be considerable reductions in the demand for unskilled labor, and in the latter case I would, frustratedly, be looking for a minimum wage job. If you agree with the previous sentence then you seem to believe that the demand for labor is negatively sloped, at least for wage levels well in excess of the current wage.

In Figure 4 assume that W_{M1} is $7.25 an hour and the firm is hiring 20 employees who work 40 hours per week and 50 weeks per year. The firm's labor bill is therefore $290,000 per year. Now increase the minimum wage to W_{M2}, which is $14.50 per hour. If the firm continues to hire 20 employees then its wage bill is now $580,000 per year. If the minimum wage is raised to W_{M3}, $20 per hour, then the firm's wage bill rises to $800,000 per year. Do you really believe that there will be no reduction in employment? You can also probably see why most economists regard the idea that an increase in the minimum wage will cause employment to rise (the demand curve would be positively sloped) with incredulity.[7]

5. Remember my warning in CM4 that labor markets do not necessarily behave in the way the simple supply and demand model might suggest.

[7] High minimum wage rates, combined with generous, and sustained, unemployment pay, may be a reason for the higher unemployment levels in Europe compared with the US in the 1990s and 2000s.



With Wm_1 the firms' labor costs are Wm_1 times Q_1. With Wm_2 labor costs rise by Wm_2-Wm_1 times Q_1. If the minimum wage rises again then firms will surely have to cut their labor force as their labor costs keep rising.

Figure 4

6. The best estimate that I have seen is that W_{m2} is around where the wage is about 75% of the median wage. That is about $15 per hour!

10. CONFUSING LOW WAGES WITH LOW INCOMES

1. The minimum wage was introduced to help workers to support a family. But the minimum wage is too low to feed, house, and clothe a family. If we assume that workers work 2,000 hours per year, then $15 per hour would generate an annual income, before tax, of $30k. $30k is not much to support an adult and two children. Very few workers stay on the minimum wage beyond two years. Proponents of the minimum wage often confuse the wage rate with household income; *it is perfectly possible for someone to have a low wage but to have a relatively high standard of living* if that person is a "secondary" worker and not the main source of income for the family. Before we retired, my wife and I both worked and so our individual hourly wage rates were a poor indicator of our family income. When my son worked in a fast food restaurant, he did so for pocket money – we provided his food, housing, etc. and while his annual earnings were very low, he lived in a household with an income in the top half of the income distribution.

11. TEEN EMPLOYMENT

1. Minimum wage earners are disproportionately young; 50% are aged 16-24 and 24% are teenagers. Minimum wages for teen agers are lower than for adults because the evidence seems to suggest that they are the group that are most likely to be adversely affected by minimum wage laws (which suggests that

Congress does believe that raising wages will kill jobs). Teenagers need job experience if they are ultimately going to get better paying jobs. Raising their wages will make it more difficult to "climb the job ladder" if the bottom rungs have been cut off.[8]

2. An increase in the minimum wage may cause some high school students to "drop out" of school (the opportunity cost of being in school has increased).

3. The best estimate is that an increase in the teen wage of 10% lowers teen employment by about 2%.

12. THE LONG RUN IMPACTS

Capital is substitutable for labor in many instances and as technology advances it will destroy many low skill jobs while creating better paying higher skill jobs: electric floor polishers mean fewer jobs for janitors; bar codes displace grocery clerks; aluminum scoops for filling French frie packets replace fast food workers; icon based cash registers replace checkout persons; self-checkouts mean fewer people checking out groceries.[9] Robots may replace routine accounting and law jobs. Low skilled labor is more easily replaced by robots but may cause the demand for skilled labor to run the machines to increase. Therefore, we would expect that the long run effects of the minimum wage would be greater than the short run ones as capital is substituted for labor – *causing the demand for unskilled labor over time to shift further to the left.* The empirical evidence suggests that in the long run the negative impact of the minimum wage on

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[8] In 2016, 79.9 million workers age 16 and older in the United States were paid at hourly rates, representing 58.7 percent of all wage and salary workers. Among those paid by the hour, 701,000 workers earned exactly the prevailing federal minimum wage of $7.25 per hour. About 1.5 million had wages below the federal minimum. Together, these 2.2 million workers with wages at or below the federal minimum made up 2.7 percent of all hourly paid workers. Notice that you have to be careful when listening to economic arguments: when someone quotes the number of workers earning the minimum wage do they mean exactly the minimum or the minimum and below?
https://www.bls.gov/opub/reports/minimum-wage/2016/home.htm#:~:text=In%202016%2C%2079.9%20million%20workers,wage%20of%20%247.25%20per%20hour.

[9] See the You Tube video on robots: http://www.youtube.com/watch?v=7Pq-S557XQU and the excellent piece by Brad DeLong https://www.project-syndicate.org/commentary/j--bradford-delong-questions-paypal-co-founder-peter-thiel-s-argument-that-robots-will-save-us-from-a-low-wa

http://www.theverge.com/2014/8/7/5978395/pew-research-center-asks-experts-about-whether-robots-will-take-our-jobs

http://www.nytimes.com/2014/12/16/upshot/as-robots-grow-smarter-american-workers-struggle-to-keep-up.html?_r=0&abt=0002&abg=0

employment is larger than the short run impact.

13. A POORLY TARGETED POLICY.

1. *The minimum wage is a poorly targeted policy, because the minimum wage applies to all workers* ***irrespective of their household income****.* The empirical evidence suggests that much of the gains from higher minimum wages go to households in the upper half of the income distribution. If low incomes are the problem then supplementing the incomes of persons who are deemed to be poor makes more sense than fixing a price, their wage, which may be only tenuously linked to their standard of living.

Fixing a price interferes with the allocative function of prices. Prices serve as signals of resource scarcity; increases in prices signal that the resource has become relatively more scarce, and decreases in price signal that the resource is becoming less scarce. Higher prices are likely to be associated with higher profits, which provide incentives to move resources to the more scarce use, lower prices do the opposite. As I write this (3-27-21) the US and Mexico have joined Russia and Saudi Arabia to reduce the supply of crude oil as the demand for oil has fallen because world economic activity has fallen because of the pandemic.

If prices generate optimal signals then interfering with prices has bad consequences.

Rather than fixing prices to try to deal with the problem of low incomes *economists suggest that we just transfer money to those in need*, where need is defined however you please.

13. A NEGATIVE INCOME TAX

Milton Friedman was described by the *Economist* "as the most influential economist of the second half of the 20th century … possibly of all time" (Maynard Keynes was the most influential economist of the first half of the 2oth century – Keynes is pronounced canes.) Friedman was a very conservative economist, a member of the Chicago school of free market-oriented economists.[10] Friedman who stood five feet tall in his socks on a thick carpet was a brilliant debater and a very engaging person. Friedman was an advisor to Ronald Reagan and Margaret Thatcher; he won the Nobel Prize in 1976. His book "Capitalism and Freedom" was a best seller and his PBS series "Free to

[10] Note how the language used by economists often has emotive overtones: gods are things that you would want more of, you would not be in favor of "unfree" markets.

Choose" was widely watched. (You will get a feel for the man if you look at one of the programs, for example, https://www.youtube.com/watch?v=b7Ch4rzINyY When I looked at this video I was struck by how much the US has changed since 1980 – something that we will explore when we get to CM 21.)

Although very conservative Friedman was also a compassionate man. He was a strong advocate of a Negative Income Tax (NIT) to provide a minimum income floor or "safety net" for all Americans. He argued that what the poor need is money and that a sensible government would give them money, not paternalistically play around with their lives, and that a NIT would eliminate the need to have large numbers of bureaucrats running things like Food Stamps[11] and school meal programs.

The idea of a NIT is very simple, although its implementation needs careful thought. In its simplest form the NIT requires you to come up with two numbers: the minimum amount that each adult should have to live on, the Guaranteed Income say, $20,000 per year, and the rate at which positive earned incomes should be taxed, say, 25%.

TABLE 1

	EARNED INCOME	INCOME TAX PAID	AFTER TAX INCOME	GUARANTEED INCOME (TRANSFER)	DISPOSABLE INCOME	NET TAX
1	0	0	0	$20,000	$20,000	- $20,000
2	$1	$0.25	$0.75	$20,000	$20,000.75	- $19,999.75
3	$100	$25	$75	$20,000	$20,075	-$19,975
4	$1,000	$250	$750	$20,000	$20,750	-$19,750
5	$20,000	$4,000	$16,000	$20,000	$36,000	-$16,000
6	$40,000	$10,000	$30,000	$20,000	$50,000	-$10,000
7	$80,000	$20,000	$60,000	$20,000	$80,000	0
8	$100,000	$25,000	$75,000	$20,000	$95,000	$5,000
9	$200,000	$50,000	$150,00	$20,000	$170,000	$30,000

The mechanics of the NIT are laid out in TABLE 1.

Column 1 shows the individual's earnings before tax.

[11] Food Stamps are now SNAP (Supplemental Nutrition Assistance Program). http://govthub.com/food-stamp-program.aspx

Column 2 shows the amount of tax owed at a single 25% rate.

Column 3 is the individual's after-tax income. (Earned Income – Tax)

Column 4 is the guaranteed income that is paid to everyone over the age of 18 (economists call this an income transfer from the government).

Column 5 is the individual's disposable income, what they retain after paying their income tax and receiving the $20,000 transfer (DISPOSABLE INCOME = EARNED INCOME + GUARANTEED INCOME – TAX).

The **final column** shows the net tax = GUARANTEED INCOME (TRANSFER) – TAX.

Consider **Row 1**. The disabled person, the elderly bedridden person, someone unemployed, the drug addict, the lazy slob does not earn anything. They therefore pay no tax. And their disposable income (DI) is $20,000, the amount of the guaranteed income (GI). Notice that everyone, including the drug addict and the slob, receives the GI *as a right*. The government does not pry into their bedrooms seeking to discover if they are cohabiting with someone as was the case with the old pre-Clinton welfare system that was targeted towards unmarried women who were supporting children;[12] the government does not have to have a large and expensive bureaucracy to determine whether you really are really disabled. The IRS can administer the NIT and many other government programs, such as "food stamps", rent vouchers, school meals, even unemployment benefits can be abolished or cut back. In the final column we see that the person's tax is negative, -$20k; hence the name Negative Income Tax. In fact, taxes are negative – the government ends up paying some part of GI – in rows 1-6.

In **Row 2** the person earns $1 and has to pay 25 cents in taxes but keeps 75 cents. This gives everyone an incentive to work. Welfare systems are often structured so there are disincentives to work. For example, under the old welfare system if you worked then the moment you reached a certain income threshold you might lose your eligibility to receive such things as food stamps, free school meals, rent subsidies and so you might become worse off working than if you stayed on welfare.

Now jump to

[12] Welfare was abolished by President Clinton and there are now work requirements to receive these transfers from the government. Companies also receive transfers from the government in the form of subsidies and tax breaks, and homeowners receive government transfers in the form of mortgage relief.

Row 7 the person earns the break-even income of $80,000. She pays $20,000 in income tax but the GI transfer cancels that out and so her net tax is $0. Her DI is $80,000

Row 8 the person pays $5,000 to the government, because she owes $25,000 in income tax, which is $5,000 more than the GI. Her DI is $95,000. Notice that her DI keeps increasing by 75% of her increased earnings ($15,000 is 75% of $20,000).

Row 9 The person earns $200,000. Her taxes are $50,000 (25%) and her after tax income is $150,000. Her GI is still $20,000 so that her net tax $50,000 – $20,000 = $30,000; this is the amount that she *pays* to the government. Her DI is therefore $170,000 ($200,000 – $30,000), which is $75,000 more than when she earned $100,000 because she keeps 75% of whatever she earns.

Notice that although her marginal tax rate (what she pays on any additional dollar she earns is constant (25%) her average tax is declining, $30,000 is only 15% of $200,000. It is possible to have a progressive NIT; I assumed a constant tax rate to make the calculations easier to follow.

4. The NIT is attractive because it provides a minimum standard of living to everyone, but does not require an elaborate paternalistic welfare bureaucracy to administer it. The NIT always provides an incentive to work since the marginal tax rate is less than 100%, which is not necessarily true of some welfare systems. And the flat rate tax system with no exemptions is very attractive compared with our 6,000-page tax code that keeps an army of accountants employed finding legal ways to minimize their clients tax bill, work that is well paid but not obviously socially productive.

5. An obvious problem with the system is that it would be expensive, $20,000 x 320million is $6.4 trillion but that assumes that no one works! The current welfare system costs about $700b. But in my example the government is still collecting 25% of incomes in income taxes. An even better tax system would drastically reduce deductions, no special treatment for the well-off blind etc. and no mortgage subsidies, no tax right offs for charitable contributions, and 401k and medical benefits would be taxed – most of these benefits go to the people in the top half of the income distribution. Obviously, the tax system could be made progressive and GI could be adjusted to take account of family size and cut off entirely once a certain after-tax income is achieved.

6. Figure 5 illustrates the simple NIT system described above.

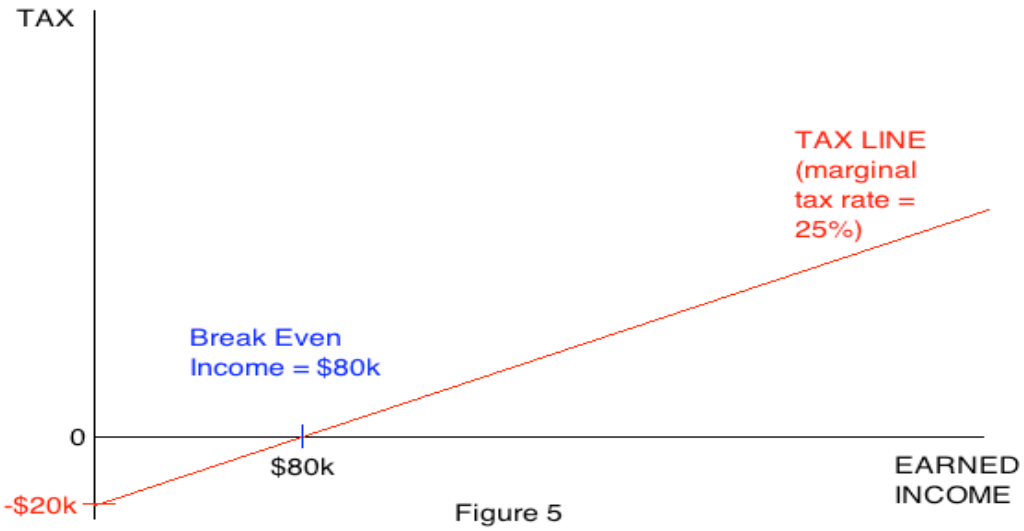

Figure 5

7. The US has a multiplicity of taxes and entitlement programs. My value judgement, **which you can simply ignore**, is that any civilized society should provide protection for the old, the young, and those persons who are unable to provide for themselves. But remember that some children – the 45th President when he was seven years old, the British Royals – are perfectly well provided for and do not need government assistance. However, many children in the US (perhaps as many as 25%) live in poverty and suffer from what is euphemistically referred to as "food insecurity.

8. The NIT is not something that is politically viable in the US and so we have the Earned Income Tax Credit (EITC). The EITC rebates Federal income taxes to low income tax payers, especially those who have children. (Although the poor pay little in income taxes they pay FICA and sales taxes.)[13] And the EITC is targeted specifically to the poor, something that the minimum wage does not address. However, the EITC only helps those who have a job and rebates only what they pay in taxes and it seems to be particularly susceptible to fraud. However, when a program is subject to fraud you have to ask which is better, the existing system without fraud, or the system with fraud? This is a variation of Voltaire's "the best is the enemy of the good". We cannot expect any real-world system to be perfect and free from flaws; all we can hope for is that the new system is better on the whole than the system that it is replacing.

9. A combination of a higher minimum wage with higher EITCs may be a superior policy to the minimum wage.

[13] Washington State has the dubious honor of having the second most regressive tax system in the US and it would require an amendment to the state constitution to tax incomes.

14. A UNIVERSAL BASIC INCOME

1. F. A. Hayek was another very conservative Nobel Prize winner, who spent many years at the University of Chicago, although not in the economics department. (Today few academic economists pay attention to Hayek's economics.) Like Friedman, Hayek strongly influenced Reagan and Thatcher. Hayek was an early advocate of a Guaranteed Income, a policy that was advocated by Andrew Yang the recent Democratic Primary candidate. Hayek wrote: "The assurance of a certain minimum income for everyone, or a sort of floor below which nobody need fall even when he is unable to provide for himself, appears not only to be wholly legitimate protection against a risk common to all, but a necessary part of the Great Society in which the individual no longer has specific claims on the members of the particular small group into which he was born." Yang called his policy a Universal Basic Income (UBI).

2. A UBI keeps the income guarantee (GI) part of the NIT but does not specify anything about the tax system. The big problem with a UBI like the GI is that if it is really universal then it is very expensive. But it is not obvious why the UBI should be paid to Bill and Malinda Gates or even Allan Sleeman and his adorable wife. The UBI would replace the minimum wage.

14. HUMAN CAPITAL

1. What a person earns is related to their productivity although *there is not the simple one to one correspondence between productivity and earnings that economics textbooks suggest*. Low wage earners are usually low wage earners because they do not have much human capital (they lack education, job skills and appropriate training, and work experience).

2. Low wage earners are therefore low productivity workers and economists stress that policies should be aimed to increase human capital investment in order to reduce the number of low productivity workers. For many low wage earners, the long run solution to their plight is to encourage them to complete high school and then to go on to further ***vocational*** training, although I believe (**my value judgment**) that we send too many people to university. But we face a major challenge in the US because of our lamentable educational system.[14]
(6,855)

[14] The American education system is often said to be the best in the world. This may be true if you are referring to graduate education at the best American universities, but I do not think that American education below the graduate level is noticeably better than that in other countries and in many cases, it is demonstrably worse.

Here are some links if you are interested – I could not resist the last one!

https://ritholtz.com/2019/08/longest-period-in-history-without-an-increase-in-minimum-wage/

https://www.bls.gov/opub/reports/minimum-wage/2018/pdf/home.pdf

https://www.pewresearch.org/fact-tank/2014/09/08/who-makes-minimum-wage/

https://publicpolicy.wharton.upenn.edu/live/news/2132-minimum-wage-not-a-simple-supply-and-demand-curve

https://www.citylab.com/equity/2019/04/minimum-wage-by-state-jobs-data-employment-economic-research/587992/

https://www.minneapolisfed.org/article/2006/interview-with-david-card

https://www.nytimes.com/2007/01/11/us/11minimum.html?_r=1&oref=slogin

https://www.washingtonpost.com/business/2019/07/03/why-nearly-workers-mostly-red-states-arent-seeing-wage-increases-even-though-their-local-lawmakers-passed-them/

https://www.theguardian.com/society/2019/dec/31/boris-johnson-to-raise-minimum-wages-by-four-times-inflation

https://www.frbsf.org/economic-research/publications/economic-letter/2020/january/long-run-effects-earned-income-tax-credit/

https://www.cbpp.org/research/federal-tax/house-ways-and-means-committee-legislation-would-expand-eitc-and-child-tax

https://www.nytimes.com/2016/06/06/world/europe/switzerland-swiss-vote-basic-income.html?_r=0

http://dolanecon.blogspot.com/2019/10/would-ubi-reduce-work-incentives-some.html#more

http://dolanecon.blogspot.com/2019/10/how-generous-basic-income-could-we.html

https://www.nydailynews.com/new-york/strippers-10-million-minimum-wage-suit-article-1.2011119