Monopsony Theory

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Abstract: This papers attempts to show that the neoclassical analysis of monopsony is erroneous. We deal with this issue under two sub-headings: those compatible with mainstream economics, and those that are not. In the first category are: paucity, wrong target, temporariness, limited window, complexity, information and timing (length of run). In the second category are those stemming from an alternative economic perspective, Austrianism: objective expenses vs. subjective costs, reliance on illegitimate interpersonal comparisons of utility, failure of trade to occur, coerced income transfers, difficulties with perfect competition and geometrical/mathematical considerations.

I. INTRODUCTION

In the debate over the effects of the minimum wage law, the strong consensus (Block and Walker, 1988; Frey, et. al. 1984; van Dalen and Klamer, 1997) of economists is that such legislation leads to unemployment for unskilled workers. There is some disagreement as to the strength of this effect, but only a small minority of the members of the dismal science deny this finding outright (Card and Krueger, 1994).

But virtually all of the latter would attribute this unexpected conclusion to the phenomenon of monopsony.[1] That is, the "market failure" of "insufficient competition" among buyers results in sub-optimally low quantities and prices in the market. Nor does this apply only to those who support minimum wages. Indeed, it is the consensus of virtually the entire economics profession that there is indeed such a thing as

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[Editor's Note: Due to their unusual number and size, all figures that are discussed in this paper are to be found in the end of it as an exception to our usual policy to include them *in situ*.]

monopsony, and that when and where it exists, a minimum wage law will not only raise wages, but also increase the employment opportunities of those affected by it.[2] Presumably, the reason so few economists favor the minimum wage law is *not* because they think it necessarily leads to greater unemployment for the unskilled, but due to the fact that they judge monopsony inapplicable in most real world situations. Were they to judge that the organization of most industry was on monopsonistic lines, it is the view of the present authors that the economics profession as a whole would *favor* minimum wage legislation as a means of raising wages and the number of job slots open to the unskilled.

The present paper is devoted to a critical analysis of monopsony, particularly as it impacts arguments in support of the minimum wage law made on the basis of it. In section II we depict the model as offered by its neoclassical proponents; section III is devoted to criticisms of this model which emanate from within the mainstream economic tradition; section IV, the core of our paper, is devoted to criticisms of monopsony in general, and, in particular, support for minimum wages that can be made upon monopsonistic grounds. We consider an objection to our thesis in section V and conclude in section VI.

II. MONOPSONY

We start off with the traditional monopsony diagram (see Figure 1 at end of article with all other figures),[3] where the downward sloping curve depicts the marginal revenue productivity (MRP)[4] of a group of workers of the same skill, one of the upward sloping curves represents the average factor cost (AFC); i.e., the supply of labor (S),[5] and the other represents the marginal factor "cost"[6] of hiring an additional worker (MFC) on the assumption of non-price discrimination; i.e., all employees are paid the same wage. We indicate three important points on this diagram, M, C and A. M is the profit maximizing wage-quantity of labor combination for the monopsonist of W_M and Q_M. C illustrates the profit maximizing wage-quantity of labor combination when the labor market is perfectly competitive; Q_C workers would be hired, and paid a wage of W_C. A is important for two reasons. First, it denotes the point at which MFC and MRP intersect, which locates the

quantity of labor to be hired by the monopsonist, and second, to be discussed below, it identifies the maximum level at which the minimum wage can be set and still unambiguously benefit the workers; any higher than this and the higher wage rate comes at the price of reduced employment.

As is shown in Figure 1, M lies below and to the left of C. This means that the monopsonist will employ fewer laborers, and pay them less, than would an employer if the labor market were perfectly competitive. The reason for this, the explanation of the divergence between MFC and S, is that when the firm wishes to take on an additional employee, it must pay him somewhat more than the prevailing wage rate, since it faces an upward sloping supply curve. But if the monopsonist must pay the last or marginal worker a bit more, and it pays its entire staff the same amount of money, then in addition to paying the last one somewhat more than everyone else, it must raise the wages of all other workers (the inframarginal units). If it does so, then its marginal factor cost cannot be found upon the S curve it faces; instead, these are read off the MFC curve, which is defined in precisely this manner. (In contrast, the perfectly competitive demander of labor faces a flat supply curve; it hires so small a percentage of the labor force it acts as if when it takes on one more person, it can do so without having to pay a premium above the prevailing wage).

To illustrate all possible cases of the effects of a minimum wage law, we use seven (7) figures, with the minimum wage levels set: below M (Figure 2), at M (Figure 3), between M and C (Figure 4), at C (Figure 5), between C and A (Figure 6), at A (Figure 7), and above A (Figure 8). We do so to show that, according to neoclassical economic thought, the minimum wage law can only "help" the workers when the wage is set between M and A, inclusive.

How does the introduction of the minimum wage in Figure 2 change our graph? That (the dotted) portion of the supply curve lying below the minimum wage is supplanted by the (solid) flat, minimum-wage curve; the remainder of the supply curve is unchanged.[7] That is, the new supply curve consists of the (solid) minimum wage line from W_B to B, at which point Q_B is the quantity of labor employed; thence it consists of the (solid) portion of the original supply curve. As to the MFC curve, that (the dotted) portion of the marginal factor cost curve lying between the vertical axis and D is supplanted by the

(dotted) flat, minimum-wage curve from W_B to B, at which point Q_B is the quantity of labor employed; the remainder of the MFC curve is unchanged. There is a discontinuity in the MFC curve when the quantity of labor employed is Q_B.

As it happens, a minimum wage of W_B will have no effect on the behavior of the monopsonist (we abstract from the likelihood that this law, pegged at *any* level for the first time, will serve notice on market participants that a new legal regime is now in effect, and that a minimum wage established at any one level can be changed to another). The law requires that he pay at least W_B. But he is already compensating his workers to the tune of W_M ($>W_B$) on the basis of profit maximizing considerations. So the law at this level is, in effect, null and void, mandating something that would exist in any case.

A similar conclusion can be drawn with a minimum wage set at W_M (Figure 3). This is precisely the rate of pay that would otherwise obtain in the absence of the law, so, it, too, is of no effect. Matters "heat up" with a minimum wage of W_D (Figure 4). Here, for the first time, the "salutary" effects of this legislation can be demonstrated. In the absence of the law, Q_M workers are paid W_M. With the enactment in effect, additional employees are taken on (Q_E-Q_M) and they *all* receive a pay packet of W_E ($>W_M$) that constitutes an actual raise from what the employed workers (Q_M) were paid before the advent of this new legal situation. Here, for the first time we have the supposed best of all possible worlds: the employees' pay scales increase, and there are more of them employed.

Things are even "better" when the wage minimum is elevated to W_C. Here, there are even more workers on the books, and with still higher hourly wages. In fact, with wages at this level, the monopsonist is forced to act as if he were broken up into enough firms to constitute perfectly competitive conditions. That is, the non wage-discriminating monopsonist pays W_C and hires Q_C workers (Figure 5), exactly the same wage rate and employment that would occur if the industry were perfectly competitive.

When the minimum wage is raised again, this time to W_G, the MFC intersects the MRP curve at point G, implying the employment of Q_G workers at the minimum wage, W_G (Figure 6). When comparing points C and G, note that a move from the former to the latter implies a pay scale increase, but a decrease in employment. Does this mean

that the gain to the workers is not unambiguous? No. For the proper comparison is not between C and G, but rather between M and G. That is, without the minimum wage, the workers would be stuck at M; with it, they move up and to the right to G. This constitutes a gain *both* in employment and in wages, so, again, it cannot be denied, given the neoclassical tools we are now utilizing, that their lot is improved.

When the wage minimum is again elevated, this time to W_A, the MFC intersects the MRP at A, and another presumably unambiguous improvement in employee welfare is registered. In this case, although there is no gain in employment, the level of employment remaining the same (Q_M) as it was at M, wages are higher, W_A rather than W_M; in fact, they are as high as they can be without lowering the number of jobs (see Figure 7). Nor can it be objected that the workers as a group are worse off in terms of employment slots open, compared to point C, for as we have already seen, the proper comparison is of A with M, not with C.

It is only when we arrive at a minimum wage of W_N that the classical result expected by virtually all economists finally obtains, even in the face of monopsony: wages increase, but at the price of decreased employment (Figure 8), so there is now a "cost" to this legislative enactment, just as occurs under the assumption of perfect competition.

To summarize this section, as long as the minimum wage is greater than W_M and less than or equal to W_A, the workers will gain: their salaries will increase, and the number of job opportunities for this sector of the labor force will increase, or, at worst, not decrease. If the minimum wage is below W_M it will have no effect, and if above W_A it will reduce employment.

III. NEOCLASSICAL CRITICISMS OF THE MONOPSONY ARGUMENT

At first blush, this section constitutes a veritable contradiction in terms. Monopsony is a creature of the neoclassicals; how, then, can these economists turn around and reject their own invention? To be sure, just because the critiques to be offered below are compatible with the neoclassical world view does not mean they have been made by mainstream economists. Mostly, they have not been articulated from this quarter, so blinded by their training are such practitioners with the idea of monopsony power.

However, the views now to be explored are at least compatible with mainstream philosophy.

1. Paucity

There are very few actual examples of monopsony in the real world. Were there any monopsonistic industries, or, to the extent that there are, this implies for the neoclassical economist that the workers are underpaid. If so, all the employees have to do is to bestir themselves into finding a better job. One wonders how the workers find themselves in this predicament in the first place. Presumably, they were attracted to migrate to the one industry town in the first place with the specter of higher wages and better working conditions than previously available to them. If so, from whence arises the "exploitation?"

Nor is it even necessary that the worker have the knowledge he is underpaid compared to opportunities available elsewhere. Equally efficacious would be this information in the hands of employers competing with the presumed monopsonist. It is not for nothing that agribusiness firms have long traveled hundreds of miles away, to a foreign country (e.g., Mexico) to entice workers away from those environs with wage offers far more attractive than those available in the home labor market. Ignorant do-gooders object to the supposed "exploitation" of these Mexican workers on the ground that the wages paid are low compared to American standards, and the working conditions (including homes furnished by the employer to the employee) are inferior on this same basis. They reckon in the absence of the concept of "voting with your feet": the fact that the Mexicans willingly travel hundreds of miles from their homes eloquently attests to the fact that the offers in this country are vastly superior to those available to them at home.

Today, most workers live in cities. Given the multitude of employers therein, that a monopsony in the market for unskilled workers employees would exist is most unrealistic. When workers discover that the firm they work for pays wages below those obtainable elsewhere in the relevant geographical market, a worker could simply change employers. This would put quite a spoke in the wheel of anyone trying to pay employees less than their marginal revenue product. Moreover, the highly developed

network of roads combined with relatively inexpensive means of transportation such as used cars and motorcycles means that workers residing outside of cities are not bound to employers in a narrow geographical area.

2. Wrong target

Actual real world examples of monopsony apply to the upper income end of the labor market, not the bottom, minimum-wage one. For example, in the years during which IBM was, for all intents and purposes, the only seller of computers, nerds, geeks, electronic experts and other techno wizards effectively had no other firm they could turn to for employment. Perhaps, the best examples of markets with "monopsonistic" elements are those in professional sports. Owners have used various means to try to hold down player compensation; e.g., the now-nonexistent reserve clause in baseball, the salary caps in football and basketball, and the drafts in all three, with varying degrees of success during different periods.

The employees supposedly "exploited" by the evil monopsonists in these cases were highly skilled, commanding wages far in excess of any actual proposal for a minimum wage. Therefore, the law could scarcely help them. The highest actually proposed minimum wage known to the present authors is a "living wage" of $12.00 per hour. (See "How much should colleges pay their janitors?", *Chronicle of Higher Education*, August 3, 2001, pp. A27-28). This is of course distinct from cases of *reductio ad absurdum* offered by numerous economists to undermine defenses of the minimum wage law. Typically, a level of $1,000,000 per hour will be offered with the "justification" that if such legislation can truly raise real wages, why be pikers and settle for a few dollars an hour? With earnings of one million dollars per hour, we could all become rich.

Nor is this a mere accident, such that were we to look around more carefully, we would find numerous, or, indeed, any, cases of low qualified workers facing the depredations of a monopsonist. On the contrary, there is a *reason* why only highly productive laborers would be confronted with this plight. The unskilled are the way they are because they lack training; e.g., abilities to help specific employers, such as engineers, doctors, basketball players, cellists, etc. Rather, they have what is called general skills, those that can be used in a whole host of situations: ability to sweep a

floor, clean up, carry a bundle, push a cart, take dishes off a table, etc. The point is, while there may be only one firm in an entire country with a need for the services of a narrowly trained engineer, there are any number of companies in the market for workers with such non-specific services. Therefore, a firm, to the extent it is a monopsonist, is not in competition with other firms for lower-skilled, general workers; rather, qua monopsonist, it is in the market(s) for those with specific, high-level skills. In other words, for professional sports teams with supposed monopsonistic powers, these could be expected to relate to the expert player, who could only work for another firm in this industry which might be located thousands of miles away rather than to the person who cleans out the locker room or stadium, who could easily do the same janitorial tasks for many other businesses in town.

3. A temporary phenomenon

The aforementioned cases of "monopsony"[8] in professional sports and computers, it should be noted, arose from "monopolies" in the markets for the goods produced by these firms. Consequently, both problems were eventually "solved" simultaneously by the entrance of competitors. In professional sports leagues, this generally took the form of increased competition among the extant teams as well as that from the addition of new teams. Moreover, in some cases competition for talent came from new leagues that were formed, both domestic and foreign. In the computer industry, of course, there has been the rise of Microsoft and literally thousands of other competitors for IBM. Some might say that the rise of competition in these cases took far too long, and that an all-wise governmental, anti-monopsony agency would have been much more efficient than the market. But this assumes that bureaucrats have greater wisdom and incentive than entrepreneurs. However, it is difficult to reconcile such a claim with the fact that capitalists, not civil servants, created these enterprises in the first place. For an antidote to this fallacy, contemplate the fact that the Berlin Wall fell due to the inefficiencies of socialism, as did the economies of the U.S.S.R. and many others in Eastern Europe.

Further, there is good and sufficient reason for the dissipation of monopsonies. It is the same as in the case of monopolies: this privileged status necessarily increases profits. But enhanced returns serve as a target for potential competitors. This is why, as

long as monopolies or by extension, monopsonies, are not accorded legal protection from competition by compliant and paid-off politicians, their demise is an almost certainty.

There are other phenomena that spell the eventual death knell of the monopsonist. Assuming for the moment they actually existed in the 19th century and before, this was an epoch when transportation and information costs were very much higher than at present. But these costs constitute the context in which a monopsony can survive and prosper. When they are radically reduced, it is easier for competing firms, and the "exploited" employees of the monopsonist, to find and deal with each other, to their mutual benefit and to the consternation of the monopsonist. It is hard to discern why when two consenting adults engage in a "capitalist act" (Nozick, 1974, p. 163) together, particularly an ongoing one, that one of them should be considered "exploited". Rather, this is a vestigial excrescence from our now disappearing and non-lamented inheritance from Marxism.

4. Limited window

As we have seen, there is a necessarily limited range over which the minimum wage could be raised without reducing employment below the pre-minimum-wage level. Decisions about such matters however, must emanate from the political process, replete with favoritism, bribery, corruption, one-hand-washing-the-other motivation, etc. It would be only by accident that a politically determined minimum wage would fall within the win-win range Bill, your way, we use this phrase, "minimum wage" four (4) times in a very short paragraph; mine, only three (3) times.

Moreover, demands and marginal productivities, and therefore MRPs, and supplies, and therefore MFCs, are all continually *shifting*. Thus, it is not a stationary target that the political process must hit, but rather a constantly moving one. Nor is there any automatic feedback mechanism which rewards those political jurisdictions which hit the bull's eye, and continually change the level at which the wage minimum is pegged so as to be congruent with changing economic conditions. Nor is there any such system that penalizes those that fail in this regard. It would be amazing if any accuracy in target "shooting" eventuated from such a morass. And, that assumes that the purposes of the

politicians involved in setting minimum wages is to hit the target range, for which assumption there is no basis, save the words (pun intended) of the politicians, and their handmaidens, themselves.

5. Multiple wage minima required

There is a practical difficulty with fashioning any single minimum-wage level to all industries where it might do some good for unskilled workers. Even supposing our previous obstacles to be ruled out of court for argument's sake, that is, monopsonies do exist in significant numbers, do not dissipate over time, do apply to the poor, and can be successfully targeted by bureaucrats and politicians, this limited window would still remain, and vary across different areas of the economy. The point is, for a single minimum wage to suffice, there would have to exist a range which would be a subset of the specific range of each and every individual firm/industry, else a minimum wage that suffices for one industry will be either too high or too low for another or others.

The point is, even in the absence of continually changing conditions, *one* minimum wage level almost certainly will not suffice. Rather, there must be a series of them, each tailored to a separate monopsony. This exacerbates the task of the politicians and bureaucrats: either there is an overlap of the relevant individual wage ranges – one by its very nature smaller than the relevant ranges of the individual firms/industries – such that a single minimum wage will do, in which case they must be able to recognize it, which means they must be able to discern the range for every firm/industry; or, there is no overlap in which case, again, they must be able to perceive the relevant range for each firm/industry; or, or there are partial overlaps – overlaps that include only a fraction of the firms/industries, in which case the politicians and bureaucrats must be able to discern the various potential overlaps and decide the optimal choice of them. But in order to identify this they must, again, be able to do so for the relevant range for every firm/industry. Then, if they are not to have firm/industry specific minimum wages, they must choose the optimal set of overlaps. Of course, any choices made in the latter case are bound to result in injustices and be open to large scale corruption.

Moreover, unless we have a single, universal, minimum wage, the ethos of the minimum wage law, which has been that *one* peg can suffice for an entire economy, is

severely undercut. If the ostensible goal of the law is to raise wages, then surely one level will suffice, the one up to which the law is supposedly attempting to pull workers. The real motivation for this pernicious legislation is very much otherwise. This law is never urged by the poor themselves, its presumed beneficiaries. Rather, it is championed by self-appointed spokesmen of the poor, including, and especially, the minions of organized labor, whose skilled membership is always in competition with cheaper substitutes, in an attempt to price what they see as their opposition out of the market (See on this Henderson, 2002, pp. 111-5).

6. Lack of information

As discussed above, there is a virtually unsolvable information problem. The wage area W_A-W_M looks like a reasonable target for central planners of the economy, but it is no such thing. In our diagrams, it stems, merely, from lines on a piece of paper. In actuality, it would be very difficult to hit this bull's eye, even were it not constantly on the move, which it is.

It bespeaks a certain level of intellectual conceit (Hayek, 1989) to imagine oneself capable of tailoring a minimum wage level capable of addressing the challenge of monopsony as articulated above. Anyone with the hubris to volunteer for this job would presumably expose himself, ipso facto, as incapable of carrying it out.[9]

Such enactments may not create any benefits for the working poor, but they are almost guaranteed to be a full employment law for economists who will conduct the studies necessary to make these determinations, and have a financial interest in continuing to do so.

7. Length of run

The manner in which we have depicted the various curves makes it look as if the distance along the vertical axis, W_A-W_M is a large one. That is, there is a reasonably big target at which the legislative authorities can aim their wage minimum. This might be true in the short run; however, in the medium and long runs, these curves tend to become flatter. That is, because both the buyers and sellers find it easier/more efficient to make adjustments the longer the period of time that elapses after a wage change, both the supply of and demand for labor[10] tend to become more elastic as time passes.

Let us begin by considering a portrayal of a situation of perfect competition[11] in the market for labor. In this case, illustrated in Figure 9, the MRP curve is the demand curve for labor, and, initially, with no minimum wage law yet in existence, 1,000 workers work 2,000,000 hours per year at a wage of $5 per hour, and thus receive, in total, wages of $10,000,000 annually (this assumes 40 hours per week for fifty weeks a year). A minimum wage of $6 per hour is now introduced, in which case employment decreases by 200,000 hours per year to 1,800,000 hours, and the total wages paid are $10,800,000. Moreover, an additional 200 workers would be willing to supply 2,000 hours per year at that wage rate, but cannot find employers willing to hire them. Nevertheless, as noted above, the wages paid to all employees actually rises from $10,000,000 to $10,800,000.

Assuming that none of the 200 would-be workers are able to land employment, and are ignored by the original 1,000, two options arise. First, the 1,000 could split the remaining work among themselves, evenly, each working 1,800 hours per year for a total of $10,800. In that case each of the 1,000 original workers is better off, earning $800 per year more for 200 less hours. Second, 100 of the original workers become unemployed; the remaining 900 workers work 2,000 hours per year for a total of $12,000. In that case, the workers remaining employed are better off earning $2,000 more per year for the same amount of work. Of course, the 100 who lost their jobs would find that their incomes had decreased from $10,00 to zero dollars ($0.00) and would have an extra 2,000 hours of forced leisure each year in which to enjoy the benefits of the minimum wage.

But this is by no means the end to the story. The employers are faced with a relatively more expensive factor of production, unskilled labor. As shown in Figure 10, they will be led by profit maximizing considerations to substitute relatively cheaper inputs, e.g., skilled labor, capital, etc., for this now more relatively more expensive one. As among resources, the "cheaper" is that for which the marginal expense of producing an additional unit of the relevant good through the use of more of that resource is least; i.e., the resource x_i, for which $(\partial p_i x_i / \partial x_i)/(\partial Q/\partial x_i) < (\partial p_j x_j / \partial x_i)/(\partial Q/\partial x_j)$, $j = 1,\ldots, m$, $i \neq j$. We start out under free market (FM) conditions with isoquant IQ_1 and budget line IC_{FM}, which implies that quantity A of unskilled labor (UL), and B of all other resources (AOR)

of production are hired at point C. Then, we introduce the minimum wage law with budget line IC_{MW}; the new tangency position is located at point E, which implies the usage of a reduced amount of unskilled labor D, and an increased quantity of all other factors of production, F.

All of this takes time, of course. In the immediate short run, one second after the introduction of the minimum wage at $6 per hour, employment would not fall from 2,000,000 to 1,800,000 (Figure 9). Rather it would "stay put" at 2,000,000 hours. That is, the wage bill would go not from $10,000,000 to $10,800,000, but, rather, to $12,000,000. However, with the passage of time, employers would, on the one hand, reduce production and, therefore, the demand for all resources because of decreased sales consequent to higher prices resulting from the increased labor expenses, while on the other hand they would be able to substitute further and further away from the now relatively more expensive factor of production, unskilled labor. Therefore, fewer and fewer of these people will be hired, as illustrated in Figure 11, with the pinwheel of pivoted demand curves. Where will it end? It is entirely conceivable, although not highly likely, that no workers at all (zero) of those intended to be "protected" by the minimum wage law will remain employed. D_1 is the market-run, demand curve, D_2 the short-run, demand curve (this is the demand curve depicted in Figure 9), D_3 the intermediate-run demand curve, D_4 the long-run demand curve, D_5, the very long run demand curve, and D6 is a flat line, which implies that each and every last worker has been priced out of this market; they have all lost their jobs.

For example, at a low minimum wage, the nation's elevators were virtually all operated manually; when this level was raised, it is not likely that on that very day a single elevator operator was fired for that reason. But over the next few years, more and more of them[12] were replaced by competing factors of production (capital, and highly skilled laborers who manufactured and repaired these conveyances) until virtually no elevator operators were left. That is to say, while the market-run demand curve for the services of manual elevator operators was vertical, and the short-, intermediate-, and long-run demand curves resembled the D_2, D_3, and D_4 curves in Figure 11, in the very long run it was virtually perfectly flat. The reason is that to the extent that a firm is able to earn extraordinary returns because it faces a less than perfectly elastic labor supply,

these very returns will induce, over the long run, if not sooner, competition for the labor, provided of course, that it is not a true monopsonist; i.e., a buyer whose competition, potential and/or actual, is restricted by governmental coercion.

IV. AUSTRIAN CRITICISMS OF MONOPSONY

Monopsony is dead from the neck up. It is not just a matter that it exists, but is difficult to address with a minimum wage law; rather, the entire concept is intellectually incoherent. There is no such thing as monopsony, any more than monopoly exists, apart, of course, from exclusive grants of government privilege. Statist monopoly, for example, applies to the post office, taxi-cabs and other legally protected, guild-like enterprises. Statist monopsony, by analogy, describes a situation where competition among buyers is restricted by law. For example, there are marketing boards in Canada (Grubel and Schwindt, 1977; Borcherding, 1981) to whom farmers are forced to sell their produce; it is illegal for them to sell to anyone else. The point is, while government monopsony is a reasonable concept, which describes a reprehensible economic system, market monopsony is like a square circle: a veritable contradiction in terms.[13]

1. Costs and Benefits vs. Revenues and Expenses

Although neoclassical economists pay allegiance to benefits and costs as subjective, it is lip service only, as they invariably treat costs as objective (Barnett and Saliba, unpubl.). Thus, even though most say the costs and benefits of an action are subjective; i.e., the benefit of an action is the utility thereof, and the cost of an action is the most highly valued alternative foregone in acting, and admit that values are subjective, they invariably express benefits and costs in terms of money, i.e., objectively.[14]

This leads to great confusion. One way this confusion is manifested is in neoclassical utility maximization. There, costs enter in the form of the budget constraint that is measured in monetary terms, though the units are virtually never included in the actual mathematical equations, and benefits enter through the utility function, though

the units are never included in the mathematical equations. Thus, the costs are measured in monetary terms, as if they objective, and the benefits are not measured in any units, rendering incommensurable the costs and benefits that are to be compared in order to maximize utility. Moreover, if the units were included, dimensional analysis would lead to the conclusion that either utility is cardinally measurable in terms of some standard unit; e.g., utils, or the utility maximizing equation would be dimensionally inconsistent, a sure sign of error. Furthermore, the confusion is manifested in neoclassical profit maximization. There, costs enter in the form of the "cost" function and benefits enter in the form of revenues, both of which are measured in monetary terms. It is true that in their work on agency theory neoclassicals recognize the difference between costs and benefits, on the one hand, and expenses and revenues, on the other, as perceived by the person making the decision for the firm. However, because of their use of mathematical models they cannot eschew the need to quantify. And their models obfuscate the point that utility is inherently subjective and ordinal, not objective and cardinal (On these points, see Barnett, 2004; and Barnett and Block, 2001.) To avoid this pitfall, herein, we refer to such objective measures as "expenses".

Moreover, there is an additional objective element in neoclassical economics that shows up whenever sellers have to lower the per unit price to sell additional units (i.e., demand curves slope downward) or buyers have to pay a higher per unit price to buy additional units (i.e., supply curves slope upward), which, of course, they always do in the real world, in contradistinction to the imaginary world of perfect competition.

This additional element manifests itself in the profit maximizing equation in the expression for marginal revenue, $P + Q\partial P/\partial Q$, as the term $Q \cdot \partial P/\partial Q$; this term, a negative quantity, is treated as if, in some sense, it is not a real expense to the business. That is, $|Q \cdot \partial P/\partial Q|$ is treated as if it is 'merely' a transfer from the buyers of the good, Q, to the seller. That is why, when considering profit maximization in terms of the market for goods, on one side of the profit maximizing equation $|Q \cdot \partial P/\partial Q|$ is subtracted from the price of the good to yield the marginal revenue, instead of being added, on the side, to the traditional marginal "cost", to yield the subjective marginal *expense*.

The additional element manifests itself, also, in the profit maximizing equation in the expression for marginal factor "cost", $p_i + x_i \cdot \partial p_i / x_i$, as the term $x_i \cdot \partial p_i / x$; this term, a positive quantity, is treated as if, in some sense, it is not a real expense to the business. That is, $|x_i \cdot \partial p_i / x_i|$ is treated as if it is "merely" a transfer from the sellers of the resource, x_i, to the buyer. That is why, when considering profit maximization in terms of the market for resources, on one side of the profit maximizing equation $|x_i \cdot \partial p_i / x_i|$ is added to the price to yield the marginal factor "cost", instead of being subtracted, on the other side, from the traditional marginal revenue product to yield the subjective marginal revenue product.

That is, neither is considered to be a "real" expense of doing business; they both result from less than perfectly competitive markets. As neither is a real expense of doing business, and each is merely a transfer, then they should be eliminated or, if that is not possible, reduced to the lowest level possible. And, there should be no negative consequences regarding the allocation of resources. In fact, their elimination/reduction would have the beneficial effect of correcting the misallocations of resources that result from supposedly "less than perfect" markets.

That is, cost is subjective not only in the sense of subjective value vs objective value, but also in the sense of being unique (i.e., subjective) to the actor, himself. However, neoclassicals think choices should be viewed through the lenses of some independent, objective, impartial, neutral, unbiased, disinterested 3rd party. From that perspective $|\partial P / \partial Q|$ and $|x_i \cdot \partial p_i / x_i|$ are *merely* redistributions of wealth from buyers of goods and sellers of resources, to "greedy" businesses trying to maximize profits. These factors, therefore, should not be taken into consideration in decisions affecting the allocations of resources. Moreover, to the extent that they are, according to the neoclassicals, they result in "market failures", warranting governmental intervention, provided only that the subjective benefits of such interventions outweigh the subjective costs thereof. Of course, the costs and benefits are measured as the estimated net present discounted monetary values thereof, such estimates being made by the objective third parties, themselves.

To put this in neoclassical; i.e., mathematical, terms, let the profit function be: $V = PQ - \Sigma p_i x_i$, $(i = 1,\ldots, n)$, where P and Q are the price and quantity, respectively, of a

good, and p_i and x_i are the prices and quantities, respectively, of the i resources used to produce the good; and, the production function is $Q = Q(x_i)$.

Then the profit maximizing conditions are:

1. $(P + Q \cdot \partial P/\partial Q) \cdot \partial Q/\partial x_i = p_i + x_i \cdot \partial p_i/x_i$, $\forall i$, $i = 1,\ldots, n$, or

2. $P + Q \cdot \partial P/\partial Q = (p_i + x_i \cdot \partial p_i/x_i)/(\partial Q/\partial x_i)$, $\forall i$, $i = 1,\ldots, n$,

where: $P + Q \cdot \partial P/\partial Q$ is the marginal revenue from a unit of Q – MR; $\partial Q/\partial x_i$ is the marginal product of a unit of x_i – MP_i, $(P + Q \cdot \partial P/\partial Q) \cdot \partial Q/\partial x_i$ is the marginal revenue product from a unit of x_i – MRP_i; $p_i + x_i \, \partial p_i/x_i$ is the marginal factor cost of a unit of x_i – MFC_i); and $(p_i + x_i \cdot \partial p_i/x_i)/(\partial Q/\partial x_i)$ is the marginal cost of a unit of Q produced using additional x_i – MC_i.. Note that if for the firm $\partial P/\partial Q = 0$, as neoclassical theory assumes it does in a "perfectly competitive" (PC) market for goods, then MR = P, in which case $MRP_i = P \cdot \partial Q/\partial x_i$ and is referred to as the value of the marginal product: VMP_i. Similarly, if for the firm $\partial p_i/\partial x_i = 0$, as neoclassical theory assumes it does in a PC market for resources, then MFE = p_i, in which case $MC_i = p_i/(\partial Q/\partial x_i)$. For the neoclassical, then, there are four (4) cases: PC in both the goods and resources markets; imperfect competition (IPC) in the goods market and PC in the resources markets; PC in the goods markets and IPC in the resources markets; and, IPC in both the goods and resources markets (See Table 1). Notice that in addition to treating costs as objective, the revenues expected to be foregone (FR) as a consequence of having to lower the price of the good in order to sell more of it ($|Q \cdot \partial P/\partial Q|$) and the additional expenses (AE) expected to be incurred as a consequence of having to raise the price of the resource x_i in order to buy more of it ($|x_i \cdot \partial p_i/x_i|$) are not treated as costs to the seller of goods and the buyer of resources, respectively, i.e., the firm. That is, the neoclassicals have discarded the idea of subjective cost. The true opportunity costs are the subjective values the decision maker places on the revenues expected to be foregone as a consequence of having to lower the price of the good in order to sell more of it and on the additional expenses expected to be incurred as a consequence of having to raise the price of the resource x_i in order to buy more of it. This is true both because objective monetary revenues and expenses

have been substituted for subjective benefits and costs, but also because foregone revenues and additional expenses have not been treated as "costs", i.e., expenses.

Table 1 Neoclassical

Case	Market for the Good	Markets for the Resources	Profit Maximizing Condition(s)	
1	PC	PC	$P \cdot \partial Q/\partial x_i = p_i$ or $P \cdot= p_i/(\partial Q/\partial x_i)$	$VMP_i = p_i$ or $P = MC_i$
2	IPC	PC	$(P \cdot+ Q \cdot \partial P/\partial Q) \cdot \partial Q/\partial x_i = p_i$ i.e., $(P \cdot- FR) \cdot \partial Q/\partial x_i = p_i$ or $(P \cdot+ Q \cdot \partial P/\partial Q) = p_i/(\partial Q/\partial x_i)$ i.e., $(P \cdot- FR) = p_i/(\partial Q/\partial x_i)$	$MRP_i = p_i$ or $MR = MC_i$
3	PC	IPC	$P \cdot \partial Q/\partial x_i = p_i + x_i \cdot \partial p_i/x_i$ i.e., $P \cdot \partial Q/\partial x_i = p_i + AE$ or $P = (p_i + x_i \cdot \partial p_i/x_i) \cdot \partial Q/\partial x_i$ i.e., $P = (p_i + AE) \cdot \partial Q/\partial x_i$	$VMP_i = MFC_i$ or $p_i = MFC_i \cdot MP_i = MC_i$
4	IPC	IPC	$(P \cdot+ Q \cdot \partial P/\partial Q) \cdot \partial Q/\partial x_i = p_i + x_i \cdot \partial p_i/x_i$ $(P \cdot- FR) \cdot \partial Q/\partial x_i = p_i + AE$ or $(P \cdot+ Q \cdot \partial P/\partial Q) = (p_i + x_i \cdot \partial p_i/x_i)/(\partial Q/\partial x_i)$ $(P \cdot- FR) = (p_i + AE) \cdot \partial Q/\partial x_i$	$MRP_i = MFC_i$ or $MR = MFC_i \cdot MP_i = MC_i$

As an alternative, consider the profit maximizing conditions. Note that in situations not involving price discrimination: FR > 0 as a result of having to lower the price of the good in order to more of it; and, 2) AE > 0 as a result of having to raise the price of the resource in order to buy more of it.

More insightful ways to write the profit maximizing conditions than 1. and 2., supra, are:

3. $((P + Q \cdot \partial P/\partial Q) \cdot (\partial Q/\partial x_i)) - x_i \cdot \partial p_i/x_i = p_i, \quad \forall i, i = 1,\ldots, n$, or

4. $P \cdot = (p_i + x_i \cdot \partial p_i/x_i)/(\partial Q/\partial x_i)) - Q \cdot \partial P/\partial Q, \quad \forall i, i = 1,\ldots, n.$

Then, even where objective measures of revenues and expenses are used as proxies for subjective benefits and costs, e.g., regarding optimal decisions for the firm, there is no confusion over, or mistreatment of, FR and AE. And, because the model of perfect competition is problematic, either for goods or for resource markets, there is only one case, as per Table 2.

Table 2 Subjectivist

Case	Market for the Good	Markets for the Resources	Profit Maximizing Condition(s)	
1	PC	PC	non-existent case	
2	IPC	PC	non-existent case	
3	PC	IPC	non-existent case	
4	IPC	IPC	$((P + Q \cdot \partial P/\partial Q) \cdot (\partial Q/\partial x_i)) - x_i \cdot \partial p_i/x_i) = p_i$ i.e., $((P - FR) \cdot (\partial Q/\partial x_i)) - AE_i) = p_i$ or $P \cdot = (p_i + x_i \cdot \partial p_i/x_i)/(\partial Q/\partial x_i)) - Q \cdot \partial P/\partial Q$ i.e., $P \cdot = (p_i + AE)/(\partial Q/\partial x_i)) + FR$	$(P - FR) \cdot MP_i - AE = p_i$ $P = (p_i + AE) \cdot MP_i + FR$

2. Interpersonal comparisons of utility

The points ACM (in any of the monopsony diagrams) constitute a dead weight loss triangle, in the view of neoclassical economists. This comes about from the fact that the (supposed) value (equal, in monetary terms, to the area between the demand (MRP) and supply (AFC) curves from Q_C to Q_M, i.e., the triangle ACM) to the hiring firm of the labor in the range Q_C-Q_M is greater than the opportunity costs of using this manpower elsewhere (the area between Q_C and Q_M below the supply curve). That is, the triangle ACM represents the dead weight loss, value that is lost forever, when the monopsonist

prematurely stops its hiring at Q_M, before reaching the perfectly competitive point, Q_C. That is, instead of being used to produce value equal to, in monetary terms, the area between the demand (MRP) curve and the quantity (horizontal) axis from Q_M to Q_C, i.e., the quadrilateral $Q_M A C Q_C$, that amount of labor is used to produce a lesser value equal to, in monetary terms, the area between the supply (AFC) curve and the quantity (horizontal) axis from Q_M to Q_C, i.e., the quadrilateral $Q_M M C Q_C$. The difference in value between these two areas is the deadweight loss.

The difficulty, here, is that this is an instance of necessarily invalid interpersonal utility comparisons. The analyst who buys into this concept is (not so) implicitly maintaining that the quantity of labor Q_C-Q_M is worth more employed in the present industry than elsewhere. But there is no warrant for any such hypothesis based on actual human action, on the decisions of real life commercial decision-making. Rather, this stems, solely, from drawing a few lines on a piece of paper. Or, factoring into the analysis preferences unrevealed by the market participants, themselves, i.e., preferences existing in the mind of the neoclassical analyst, but not, insofar as anyone can tell from their actions, in the minds of the market participants.

3. Failure of trade to occur

It is one thing to infer from the fact that trade has taken place that both parties have gained, in the ex ante sense. This is not only undeniable, but actually serves as an important bedrock of economic analysis. But it is quite another matter to deduce from the fact that trade has *not* occurred, that there is something amiss, akin to a "market failure".

Yet this is *precisely* what is implied by the neo-classical analysis of monopsony. In this case, in the absence of a minimum wage, as we have seen from Figure 1, trades (purchases and sales of labor services) to the extent of Q_M have taken place. Well and good: all of these employer-employee relationships are mutually beneficial, else wise they would scarcely have occurred. But this is not at all what the mainstream economist complains about. Rather, he finds a "market failure" because the firm did *not* hire the additional labor, Q_C-Q_M.

This is highly problematic. From the fact that A and B have *not* engaged in a particular trade with one another it follows that *at least* one of the parties is better off, in the ex ante sense, for *not* having engaged in the exchange. What might explain the fact that in Maine, farmer A owns a potato, and that at the other end of the country, in Oregon (potential) consumer B has a dollar bill in his pocket? For one thing, they might be blissfully unaware of each other, and of the opportunity for trade. For another, the sheer costs of learning of the very existence of one another, and of transporting a single potato all that distance might dissipate, and more than dissipate, any reasonably expected gains from trade in this particular instance. Further, even given that they already know of each other, and can costlessly transport the money and the vegetable, we still cannot conclude that this trade *should* have taken place. For all we know, the potato owner values it more highly than this particular (potential) consumer.

And yet that is what the criticism of the "monopsonist" for not hiring the additional labor, Q_M-Q_C, amounts to. However, it is possible that the so-called monopsonist does not hire this additional quantity of workers because he is unaware of their availability; or perhaps because they have better options elsewhere; or even yet because they value their forgone leisure more highly than the onerousness of working for the monopsonist. But whatever the reason, and all of this is necessarily speculative, it cannot be proven that in such cases it would be more efficient were these extra workers placed on the monopsonist's payroll.

4. Coerced income transfers

In the previous section we had occasion to look at the minimum wage imposed upon the monopsonist from the workers' point of view, alone. It is now time to consider this matter from the employer's perspective as well. Abstracting from resource allocation issues, when a wage minimum (W_{MIN}) is imposed upon a monopsonist such that $W_A <$ $W_{MIN} \leq W_M$, there is a clear and unambiguous gain for the workers, either in terms of a wage increase or the number of employees hired, or both. But it can by no means be concluded from this that there is, as a result, a benefit to society as a whole. This is because we have no warrant for concluding that the benefits to the laborers, will outweigh the losses to the monopsonist. This holds true even though, all together, the

number of the former may be far larger than the number of the latter. To make any such determination would require an interpersonal comparison of utility, and this is incompatible with valid economic theory (Barnett, 1989; Barnett and Block, 2001, unpublished; Block, 1980, 1999, 2003; Gordon, 1992; High and Bloch, 1989; Hulsmann, 1999; and, Rothbard, 1993, 1997).

5. Perfect Competition

The argument for minimum wage legislation in behalf of workers in the case of monopsony is predicated upon the model of perfect competition. M, the point at which the monopsonist hires, is compared most unfavorably with C, which indicates the wage and the quantity of labor employed under perfectly competitive conditions. But perfect competition is a ne'er do well concept, manufactured entirely out of the whole cloth. It is an artificially created stick, one especially tailored to turn real rivalrous competition into a whipping boy.

There are not one but two competing definitions for the word "competition". The structural one, "perfect competition", is utilized toward this end by neoclassical economists. Here, competition is defined in terms of the number of participants in an industry and a number of highly unrealistic assumptions such as full and perfect information, homogeneous goods, zero profits, etc. are utilized. In sharp contrast is the vision of rivalrous competition. In this case, a firm or industry is said to be competitive as long as there is free entry – as long as, that is, there are no laws restricting the actual and/or potential competitors.

Consider IBM during the years when it was virtually the only purveyor of computer equipment. For the neoclassicals, this was a monopoly because it met their definition thereof: a single seller of a good, for which there are no good substitutes. In practice, neoclassicals relax the assumption of a single seller because it is virtually impossible to find any market in which this occurs. Moreover, the proviso "for which there are no good substitutes", is necessary, for in reality every good is, to a greater or lesser extent, a substitute for every other good. Yet, on the other hand, this allows any firm to be labeled a monopolist, provided only that some basis for distinction between goods that are potentially substitutes for each other exists (which it always does), such that the goods

can be claimed on that basis not to be "good" substitutes. This latter consideration underlies the neoclassical designation of a variation of "perfect competition" as "monopolistic competition". That is, in practice monopoly is a very elastic term that can be used by politicians, bureaucrats, and a firm's competitors, to interfere with true rivalrous (i.e., Austrian style) competition. The same definition, and analysis applies, *mutatis mutandis*, to monopsony. From the perspective of our alternative view, this was a highly competitive firm, not mainly because it was continually innovating new and improved products and services, but due to the fact that it had no monopoly grant of privilege from the government, and other companies were never legally restricted from offering customers competing products on any terms they (the potential competitors) deemed acceptable.

Says Rothbard (1970, pp. 630-1) in this regard: "It is often alleged that the buyers of labor – the employers – have some sort of monopoly and earn a monopoly gain, and that therefore there is room for unions to raise wage rates without injuring other laborers". However, such a "monopsony" for the purchase of labor would have to encompass all the entrepreneurs in the society. If it did not, then labor, a nonspecific factor, could move into other firms and other industries. And we have seen that one big cartel cannot exist on the market. Therefore, a "monopsony" cannot exist.

The "problem" of "oligopsony" – a "few" buyers of labor – is a pseudo problem. As long as there is no monopsony, competing employers will tend to drive up wage rates until they equal their DMRPs. The *number* of competitors is irrelevant; this depends on the concrete data of the market…. Briefly, the case of "oligopsony" rests on a distinction between the case of "pure" or "perfect" competition, in which there is an allegedly horizontal – infinitely elastic – supply curve of labor, and the supposedly less elastic supply curve of the "imperfect" oligopsony. Actually, since people do not move *en masse* and all at once, the supply curve is never infinitely elastic, and the distinction has no relevance. There is only free competition, and no other dichotomies, such as between pure competition and oligopsony can be established.[15]

6. Perfect Competition and Geometrical/Mathematical considerations

Just as there are, essentially, three approaches to dealing with the "evils of monopoly", so also are there three approaches to dealing with the "evils of monopsony". These are: governmental ownership of the offending firm; governmental regulation of it; and, a governmentally mandated split-up of the firm into a number of smaller competing enterprises. To this point we have considered labor market monopsony as it relates to arguments in favor of a specific type of regulation, to wit: minimum wage laws. We now turn to divestiture. Standard neoclassical theory divides the set of buyers of resources into four subsets: perfectly competitive, monopsonistically competitive, oligopsonistically competitive, and monopsonistic, buyers. The first category, perfectly competitive buyers, face perfectly elastic supplies of resources, i.e., MFC = AFC. We do not consider firms in this category any further. The other three (3) categories all face upward sloping resource supply curves. All such firms can, and do, act to extract whatever pure profits they can from the market, in this case by "exploiting" the workers. Moreover, because firms perfectly competitive in the goods market are necessarily perfectly competitive in resource markets,[16] we need not consider them further. Thus, we are left with cases in which firms are imperfectly competitive in both the goods markets and the resource markets, i.e., MRP ≠ VMP and MFC ≠ AFC. And, as we have seen, supra, in neoclassical theory, there is no principled way to distinguish among (competing) firms facing upward sloping resource supply curves or among competing firms facing downward sloping demand curves.

Consider, then, optimal divesture of a monopsony from a neoclassical perspective. First, even in the case monopolistic competition in the output market and monopsonistic competition in the resource markets where there are no above normal profits, there is still a deadweight loss as each firm in a such an industry produces a quantity such that production occurs at a suboptimal level, i.e., where MR = MC, in contradistinction to the level for which P = MC. In the resource markets, this translates into operating where MPR = MFC, in contradistinction to the level for which VMP = MFC, and this holds whether or not MFC = AFC, which it is not in the case of monopsony.

It stands to reason, then, that optimum divestiture consists of the creation of a set of firms perfectly competitive both in the goods and in the resource markets. That brings

us to the issue of perfect competition. Not only is it difficult to see, but it is also a matter of mathematical impossibility, for a series of flat curves to be able to be summed up into an upward sloping one. One bit of evidence that *all* employers, no matter how small a fraction of the labor force they account for, experience rising prices, is the oft-heard complaint of rich matrons about the difficulty of getting good domestic help. Now, any one rich lady, no matter how many servants she employs, accounts for a very small percentage of this entire segment of the labor market. She *knows* that when she hires an additional one, her friends will be doing so too, for the reason she is taking on more staff at the present time, whatever it is, applies, too, to her fellow matrons. Similarly, resort hotels know that during their "season", when they need more waiters and busboys, this applies as well to the establishments down the road from them. The point is, there is no such thing as perfect competition in any case; *all* firms face upward sloping supply curves when they wish to make purchases in the market.

Consider the mathematics of the case of monopsony. Let *i* index the *n* firms in a perfectly competitive industry, i.e., i = 1…n. Let the supply-of-resources functions faced by the firms be: $x_i = c_i + d_i \cdot p \ \forall \ i$, where x_i is the quantity supplied of the relevant resource to the ith firm, *p* is the market price of the relevant resource, and c_i and d_i (c_i, d_i > 0) are supply parameters for the ith firm. Then the individual supply curves are: $p = (c_i/d_i) - (x_i/d_i) \ \forall \ i$. The market supply function is: $x = \Sigma c_i - p \cdot \Sigma d_i$, where *x* is the quantity supplied of the relevant good from the firms in the market, taken as a whole, and the market supply curve is: $p = (\Sigma c_i/\Sigma d_i) - (x_i/\Sigma d_i)$.

Then in order for the individual firms to face perfectly elastic supply, i.e., for the supply curves to be perfectly flat, as required by the model of perfect competition, $1/d_i = 0 \ \forall \ i \Rightarrow d_i = \infty$. However, the market supply cannot be perfectly elastic, i.e., the market supply curve must slope upward. That is, $1/\Sigma d_i \neq 0 \Rightarrow \Sigma d_i \neq \infty$. But if $d_i = \infty \ \forall \ i$, then, a fortiori, $\Sigma d_i = \infty$. That is, mathematically it is impossible for the market supply curve to slope upward if none of the individual supply curves that are the constituent parts of the market supply curve themselves slope in this direction.

Consider the mathematics of the case of monopoly. Let *i* index the *n* firms in a perfectly competitive industry, i.e., i = 1…n. Let the demand-for-goods functions faced by the firms be: $Q_i = a_i - b_i \cdot P \ \forall \ i$, where Q_i is the quantity demanded of the relevant

good from the ith firm, *P* is the market price of the relevant good, and a_i and b_i (a_i, $b_i > 0$) are demand parameters for the ith firm. Then the individual demand curves are: $P = (a_i/b_i) - (Q_i/b_i) \, \forall \, i$. The market demand function is: $Q = \Sigma a_i - P \Sigma b_i$, where *Q* is the quantity demanded of the relevant good from the firms in the market, taken as a whole, and the market demand curve is: $P = (\Sigma a_i/\Sigma b_i) - (Q_i/\Sigma b_i)$.

Then in order for the individual firms to face perfectly elastic demand, i.e., for the demand curves to be perfectly flat, as required by the model of perfect competition, $1/b_i = 0 \, \forall \, i \Rightarrow b_i = \infty$. However, the market demand cannot be perfectly elastic, i.e., the market demand curve must slope downward. That is, $1/\Sigma b_i \neq 0 \Rightarrow \Sigma b_i \neq \infty$. But if $b_i = \infty \, \forall$ i, then, a fortiori, $\Sigma b_i = \infty$. That is mathematically it is impossible for the market demand curve to slope downward if none of the individual demand curves that are the constituent parts of the market demand curve slope downward.[17]

V. AN OBJECTION

Consider this possible objection:

"First, there is an asymmetry between monopsony and monopoly that neither the author nor the neoclassicals typically acknowledge: workers almost always have the option of working for themselves while consumers almost never have the option of providing their own service for the 'natural' monopoly. I believe that a brief discussion of this will strengthen the author's argument (and isn't it interesting how quickly the exploited become the exploited in that case?) and it, in fact, refutes the argument that 'Actual real world examples of monopsony apply to the upper end of the labor market, not the bottom, minimum-wage one'. In point of fact, it applies to *neither market*. After all, the minimum wage workers always have alternative options than a single employer (since their work product is much more fungible as the author correctly points out), while high wage workers can (and do) decide to test their prowess as entrepreneurs (a fact that the author omits). This is the great irony that seems to be lost on both the neoclassicals and the Austrians (but it is confusing *why* this is lost on the Austrians because it fits in so well with their methodology: any firm that attempts to impose monopsony conditions will find themselves creating competitors rather than exploiting it because the 'exploited' workers will simply leave the labor market and enter the (former) monopsonists market as entrepreneurs!".

We find this objection[18] to be well-considered, and far enough off the beaten intellectual path to deserve kudos for originality. However, we cannot see our way clear to agreeing with it. Let us list the reasons.

First, we deny there is an asymmetry between monopsony and monopoly. Yes, to be sure, all employees may be thought of, at least theoretically, as having the option of self-employment. Under free enterprise, this alternative would be entirely legal. But entrepreneurship (Kirzner, 1973) is a skill not given to all. Of a certainty, there will always be *some* market participants who are now working for others and on the verge of going out on their own in independent firms (and, also, others, who are contemplating traveling in the opposite direction), but, surely, these people will be in the distinct minority. Most employees would starve if their only alternative was self-employment; they lack the initiative, the funds, the risk bearing ability, in a word, entrepreneurship. It cannot be denied that "workers … always have the option of working for themselves", but this is a *legal* opportunity. It is within the law for them to avail themselves of it. But, as a *practical* matter, this choice is open to very few.

A similar situation obtains with regard to consumers. In the city, particularly if raising chickens, rabbits, for food and growing vegetables is limited by law or prohibited outright, there is little likelihood that they can become self sufficient in groceries. In the country, of course, there is a greater possibility for this sort of non-specialization. But even here, there are severe limits. It is not for nothing that the benefits of specialization and division of labor are well known as a staple of our economic understanding.

Nor can we accept the notion of "exploitation" in this regard. Unless the monopoly or monopsony is protected by law,[19] this nomenclature is actually a misnomer. They should be characterized, rather, as single sellers, (IBM, Alcoa Aluminum) or single buyers (several sports leagues, in their infancy). Thus, they are part and parcel of the *market.* As such, "exploitation" simply *cannot* occur. *All* trades in the market are mutually beneficial in the ex ante sense; the number of competitors is irrelevant.

We stand by our characterization, moreover, that at least in the economic literature on this subject, "Actual real world examples of monopsony … (single buyers) … apply to the upper end of the labor market, not the bottom, minimum-wage one". This is because of general and specific training. A minimum wage worker can push his proverbial

broom, or do errands, or carry things around, in a plethora of industries. In sharp contrast, the professional basketball player, the airline pilot, the engineer with a very narrow focus, has fewer, not more, career options, in least in those capacities. As an empirical generalization, it is probably true that higher wage workers are more likely to survive as entrepreneurs than their counterparts at the other end of the spectrum. But there are many counter examples: the poor immigrant who works at a menial job, and then begins a pushcart peddling business, on the one hand, and on the other high-paid professional athletes and actors who seem incapable of entrepreneurship or anything like it: they are broke after years of extremely high pay.

Nor can we buy into the notion that "any firm that attempts to impose monopsony conditions will find themselves creating competitors rather than exploiting". Very much to the contrary, if a firm succeeded in imposing monopsony conditions on people, forcing them to sell only to the monopsonist, this would constitute exploitation *per se*. Given these conditions, any economic actor attempting to become a "competitor" would be visited with physical violence; strictly speaking, that is precisely what a monopsonist *does*: physically *compels* people to sell only to him (at prices he determines, unilaterally).

VI. CONCLUSION

We have articulated the mainstream view of monopsony, and applied it to the case of minimum wages. We first considered the neoclassical arguments. These do not so much oppose the application of monopsony to the minimum wage case as limit its application. We then marshaled more radically critical arguments. These, in contrast, did not limit the application of the monopsonistic model for wage legislation; rather, they directly confronted it. On the basis of them we conclude that the monopsonistic argument in behalf of minimum wages cannot be supported. But more. Not only is it improper to advocate minimum wages on the basis of monopsony, the latter model is invalid in and of itself, and cannot be used for *any* economic purpose – with the possible exception of furnishing yet another a history of economic thought example pertaining to the erroneous nature of perfect competition and mathematical economics.

GLOSSARY

AE – alternative expense
AFC – average factor cost
AOR – all other resources
D - demand
DMRP – discounted marginal revenue product
DVMP – discounted value of the marginal product
FM – free market
FR – foregone revenue
IC – isocost curve (budget line)
IPC – imperfect competition
IQ – isoquant curve
L – labor
MC – marginal cost
MFC – marginal factor cost
MFC – marginal factor expense
MP – marginal product
MR – marginal revenue
MRP – marginal revenue product
P – price of a good
p – price of a resource
PC – perfect competition
Q – quantity of a good
S – supply
UL – unskilled labor
VMP – value of the marginal product
W – money wage
W/P – real wage
x – quantity of a resource

ENDNOTES

[1]The term "monopsony" is used ambiguously. Neoclassicals use monopsony (monopoly) to refer to any situation in which there is single buyer (seller) in a market. See, e.g., Colander (1998, G-9), Ekelund and Tollison (1994, G-13), Frank and Bernanke (2001, G-5) and Link and Landon (1975). Austrians, however, distinguish between free markets with a single buyer (seller), referred to as single buyer (seller) markets, and markets in which governmental regulations restrict competition among buyers (sellers), referred to as monopsonistic (monopolistic) markets. For a Post-Keynesian analysis of monopsony, see Eichner, 1976; Milberg, 1992; Robinson, 1953, 1964, 1974; see also Rima, 1991.

[2] See on this in particular McConnell, Brue and Macpherson (1999, p. 412), but also see Besanko and Braeutigam (2002, p. 504), Brue (1994, p. 352), Due and Clower (1966, p. 264), Fellner (1975, p. 257), Ekelund and Hebert (1975, p. 461; p. 462 n.13), Ferguson (1972, p. 444), Friedman (1990, p. 268), Gwartney and Stroup (1997, p. 691), Hope (1999, p. 378), Leftwich (1973, p. 337), Liebhafsky (1963, p. 262), McCloskey (1982, p. 519), O'Connell (1982, p. 124), Posner (1986, p. 292), Quirk (1982, p. 306), Reynolds (1995, p. 244), Robinson (1964, p. 294), Schotter (1994, p. 587), Stigler (1966, p. 205), Stonier and Hague (1964, p. 265), Varian (1990, p. 432), Vickrey (1964, p. 292).

[3]As the figures throughout use straight lines for the supply, and marginal factor "cost," of labor curves, the slope of the marginal factor cost curve should be twice that of the supply curve. Throughout, for expository purposes, the slope of the marginal factor "cost" curve is somewhat greater than twice that of the supply curve; this in no way affects the analysis or conclusions.

[4]Although we shall consider the effects on *employment* of a minimum wage law in labor markets in which the employer(s) face an upward sloping supply curve, we do not consider the effects on *unemployment,* as the concept is problematic in this context. The same applies to markets in which the seller(s) face a downward sloping demand curve; the supply curve is undefined – for each specific market situation only a supply point (necessarily on the perceived demand curve) is defined. Similarly, in markets in which the buyer(s) face an upward sloping supply curve,

the demand curve is undefined – for each specific market situation only a demand point (necessarily on the perceived supply curve) is defined. It is not uncommon for neoclassical authors; e.g., Stigler (245-246), Hope (335342), to state that the MRP curve is the demand-for-labor curve, though this is correct only if the demander is a "perfect competitor" in that market, and then only in the short run, as an increase (decrease) in the price of a resource causes two (2) adjustments that are not considered in short-run analysis: 1) an increase (decrease) in the price of the relevant good with consequent decreases (increases) in sales and, therefore, a decrease (increase) in production with attendant decreases (increases) in the demands for all resources; and, 2) a substitution of (for) the now relatively less (more) expensive resources for (of) the one the price of which had increased (decreased).

[5] This paper utilizes a number of abbreviations. For a list of them all, see the Glossary, which appears right before the reference section.

[6] More correctly, "marginal factor expense." Expenses are objective and measured in monetary terms, whereas costs are subjective (opportunities foregone, known only to the human actor making the choices) and thus not subject to measurement. Note that the marginal revenue product curve (MRP) also is objective and measured in monetary terms. That is what allows it to be measured against the MFC. Cost, on the other hand, being subjective cannot be compared with objective revenues. Rather, the subjective cost of an action can only be compared with the subjective benefit thereof, and this comparison can only be ordinal (See on this Barnett, 2003).

[7] In the graphs, the MFC and AFC =S curves are composed of three types of line segments: the dashed and dotted lines indicate what the curves would look like with and without a minimum wage law, respectively, and the solid line segments indicate portions of the curves that are the same regardless of the minimum wage law.

[8] Praxeologists would characterize the state of affairs depicted above as one of "single sellers," not "monopoly." Similarly, for Austrians, there is no such thing in the free market as a monopsonist, only a "single buyer." In the latter view, the words "monopoly" and "monopsony" are reserved for cases where single seller or buyer status stems from government privilege. For a critique of neoclassical monopoly theory, see Anderson, et. al. (2001), Armentano (1972, 1982, 1991), Armstrong (1982), Block (1977, 1982, 1994), DiLorenzo (1997), Boudreaux and DiLorenzo (1992), High (1984-1985), McChesney (1991), Rothbard (1970), Shugart (1987), Smith (1983).

[9] For the general case about the failure of central economic planning due to lack of sufficient knowledge, see Boettke, 1991, Conway, 1987, Dorn, 1978, Ebeling, 1993, Foss, 1995, Gordon, 1990, Hayek, 1945, 1997, Hoppe, 1989, 1996, Horwitz, 1996, Keizer, 1987, Klein, 1996, Lewin, 1998, Mises, 1981, 1990, Reisman, 1996, Reynolds, 1998, Rothbard, 1976, 1991, Salerno, 1990, Steele, 1992.

[10] The present paper is mainly concerned with supposed monopsony in labor markets, since that charge is accorded the lion's share of commentary on this subject in the professional economics journal literature. However, the points we make here apply equally well to charges of monopsony in any other field. For example, it is often alleged, in popular not so much professional publications, that since Wal-Mart purchases from suppliers in such heavy quantity, it has captured monopsony or more accurately single buyer status: it is able to take advantage or "exploit" sellers. For defenses of this corporation on this and other related grounds, see Anderson, 2004; Carden, 2006; DeCoster and Edmonds, 2003; DiLorenzo, 2006; Kirklin, 2006; Vance, 2006. For a free enterprise critique of Wal-Mart, see Rockwell, 2005

[11] Keen, 2002, has attacked the neoclassicals with regard to the mathematical impossibility of perfect competition

[12] According to Henderson (2002, p. 112) "In the late 1960s, Otis Elevator pushed for an increase in the minimum wage in New York state because it had begun to specialize in converting human-operated elevators to automatic elevators and wanted an increase in demand for its services."

[13] The internal contradictions in both monopoly and monopsony theory are revealed by the following three jokes. Here is the first one: there were three prisoners in the Soviet Gulag, trading stories as the antecedents of their incarcerations. The first said, "I came to work late, and they found me guilty of cheating the State out of my labor effort." The second said, "I came to work early, and they accused me of brown-nosing." The third one said, "I came to work on time everyday, exactly on time, and they condemned me for owning a western wrist-watch." Lest we become too complacent, here is the second joke: there were three "white collar" prisoners doing time for monopoly in a U.S. jail, who were also giving their backgrounds to each other. According to the first, "I charged prices higher than those of my competitors, and I was blamed for profiteering and price gouging. Whereupon the second piped up: "I charged lower prices than any of my competitors, and I was castigated for predatory pricing and cutthroat competition." At this the third jailbird stated: "I charged the same prices as my competitors, the exact same prices, and they imprisoned me for collusion." The point is, if there are no fourth alternatives, and everyone must, perforce, engage in one of the three, and may, under certain circumstances, be fined or, perhaps, jailed for so doing, then what we have is not legitimate law, but rather an excuse to violate liberties. A similar joke-analysis applies to monopsony: if you pay below wages prevailing elsewhere, you can be accused of running a sweatshop, or exploiting labor; if you pay the same as everyone else, then collusion; and if you pay more, in our hypercritical society, this can expose you to the charge of attempting to ward off unionism. In these cases, also, one may be subjected to penalties for violation of the laws of the land.

[14] It is true that to the extent the monetary expenses under consideration are expected future expenses, they are subjective, but, in such cases it is the amount that is the *expected* amount of the expenses that is subjective, as are all expectations. The nature of the monetary expenses remains objective.

[15] We have so far discussed only the MRP and VMP concepts, not DMRP (discounted marginal revenue product) and DVMP (discounted value of the marginal product); that is, we have abstracted from the time element in this regard. For elucidation of this concept, see Block (1990).

[16] The usual way this is manifested in neoclassical theory is in the profit maximizing condition(s) for a firm perfectly competitive in the goods markets: MPL = W/P, where MPL is the marginal product of labor, and W/P, the money wage, W, divided by the price of the good the labor produces and the firm sells, P, is the real wage. (This assumes that there is but a single resource, labor. The analysis is unaffected by relaxing this assumption.) Were the theory to allow for a firm perfectly competitive in the goods market but imperfectly competitive in the resource(s) market(s), the profit maximizing condition would be, instead, MPL = MFCL/P, where MFC = W + L·(dW/dL) is the marginal factor cost of labor. However, this formulation is absent from neoclassical writings.

[17] This is merely another example of the abuse of mathematics in neoclassical economics. Moreover, it is interesting to note that, for a perfectly competitive market, neoclassicists do not hesitate to derive, mathematically or graphically, a market supply curve from the individual firms' supply curves, as these all slope upwards because of diminishing marginal productivity. However, when it comes to the market demand curves in such cases, mathematical or graphical derivation is no longer rigorously pursued, rather all is smoke and mirrors as the neoclassicals explain how a series of flat individual firm demand curves can be summed to a downward sloping market demand curve. And this from economists who maintain that they use mathematics, inter alia, to make economics more rigorous and precise, and who disdain economists, such as Austrians, who reject the use of mathematics on methodological grounds.

[18] We owe this objection to an indirect acquaintance of ours who wishes to be anonymous.

[19] E.g., the monopoly post office or bus line, the monopsony marketing board, wherein farmers are not allowed to sell their crops to anyone else. On the latter see Bauer and Yamey, 1968; Grubel and Schwindt, 1977; Borcherding, 1981.

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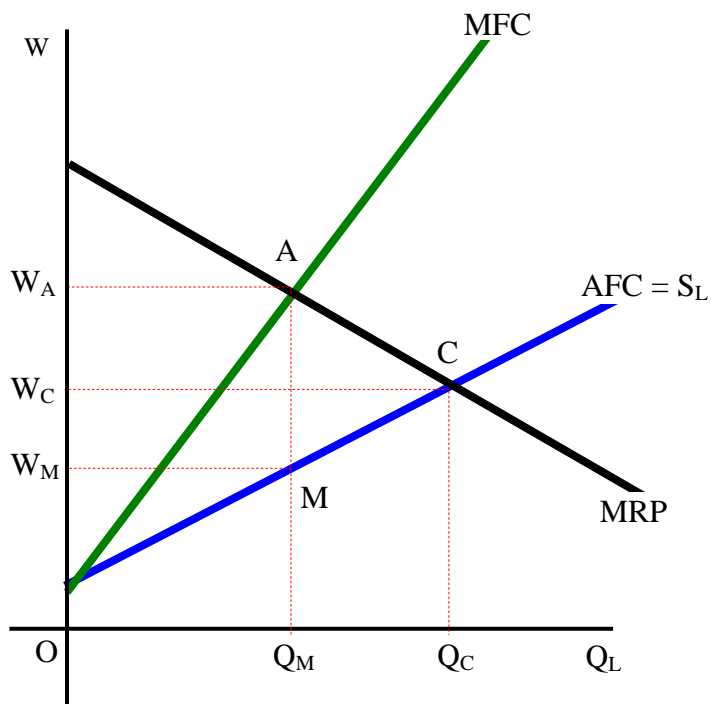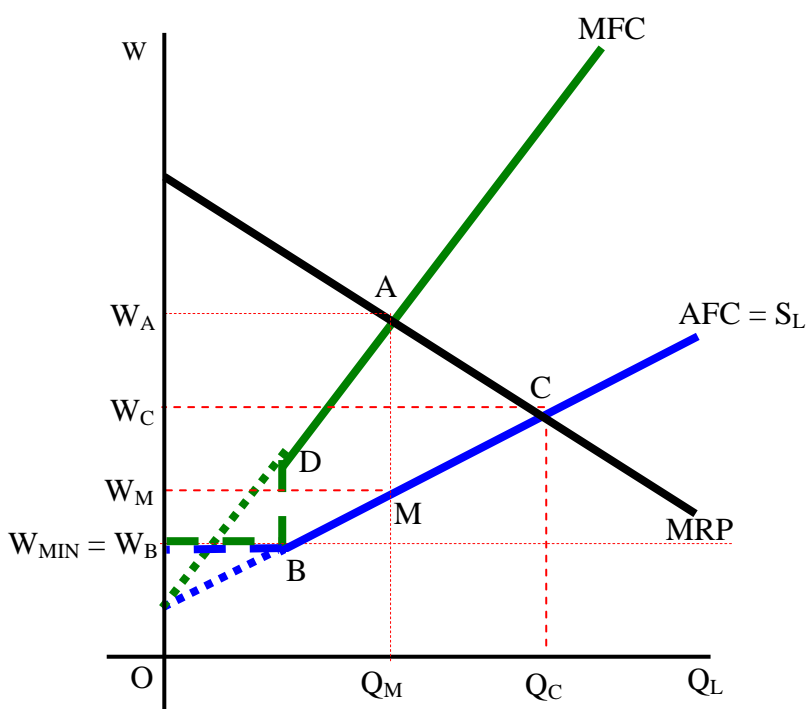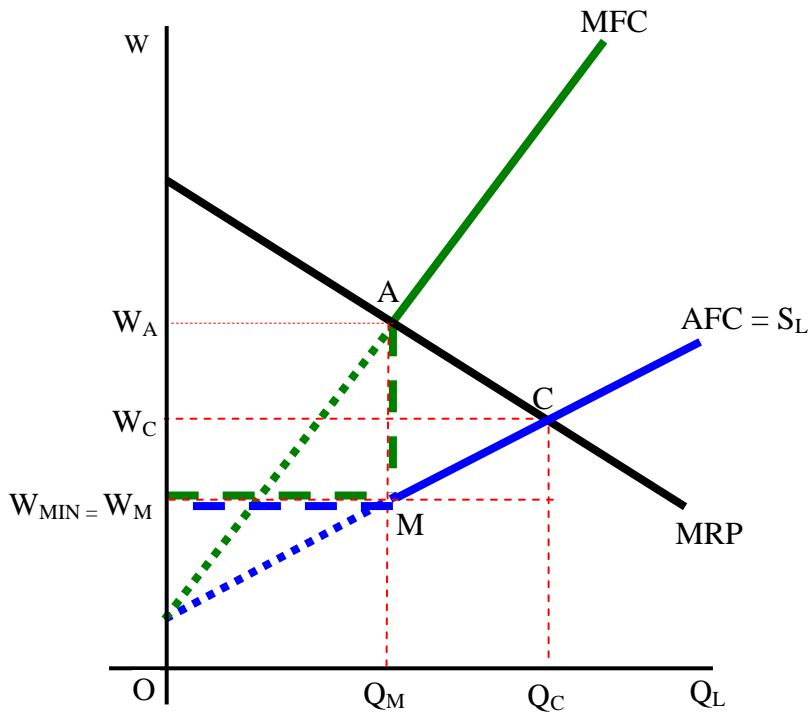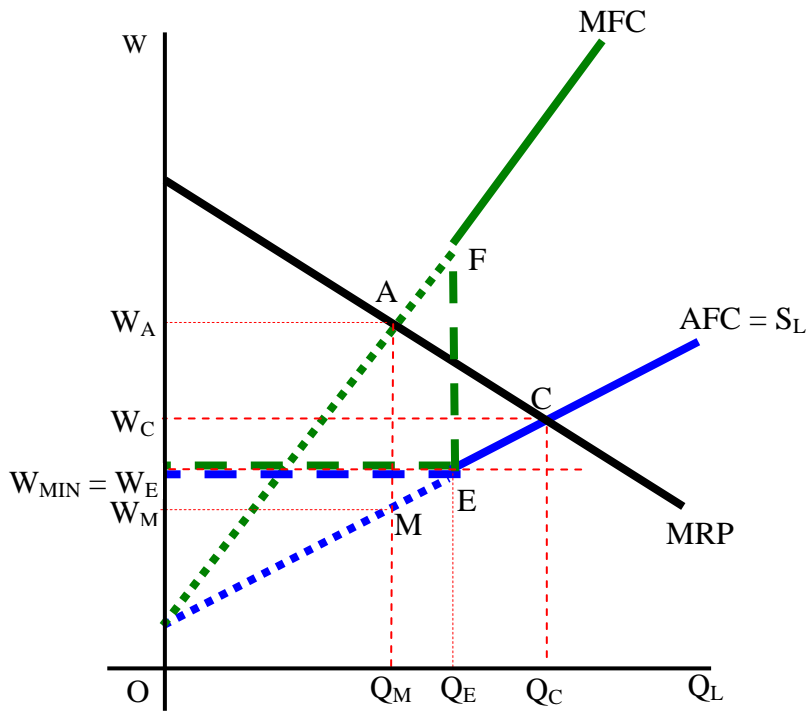Vickrey, W. S. (1964). *Microstatics*, New York: Harcourt, Brace & World.

FIGURES

Figure 1

Figure 2

Figure 3

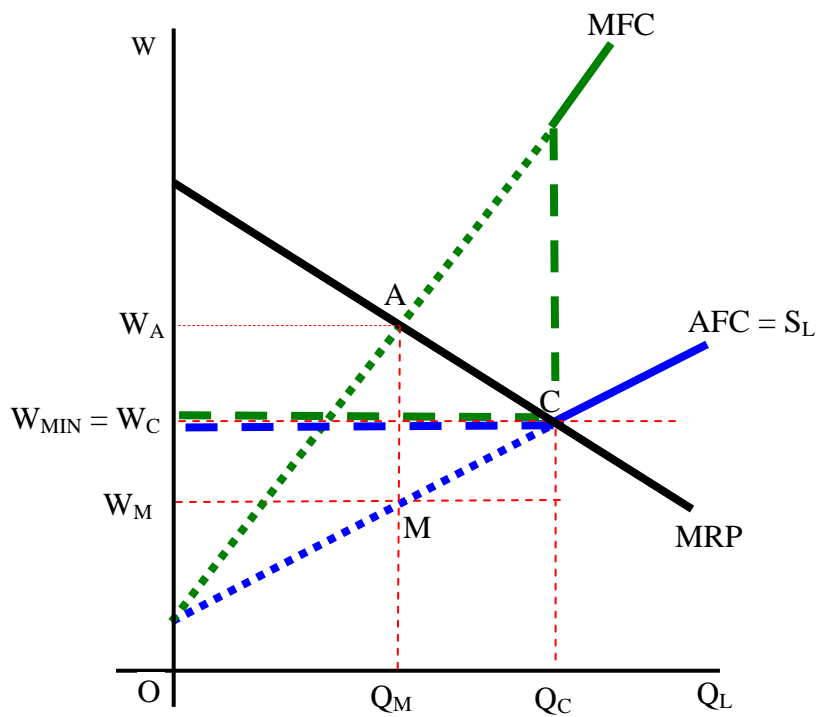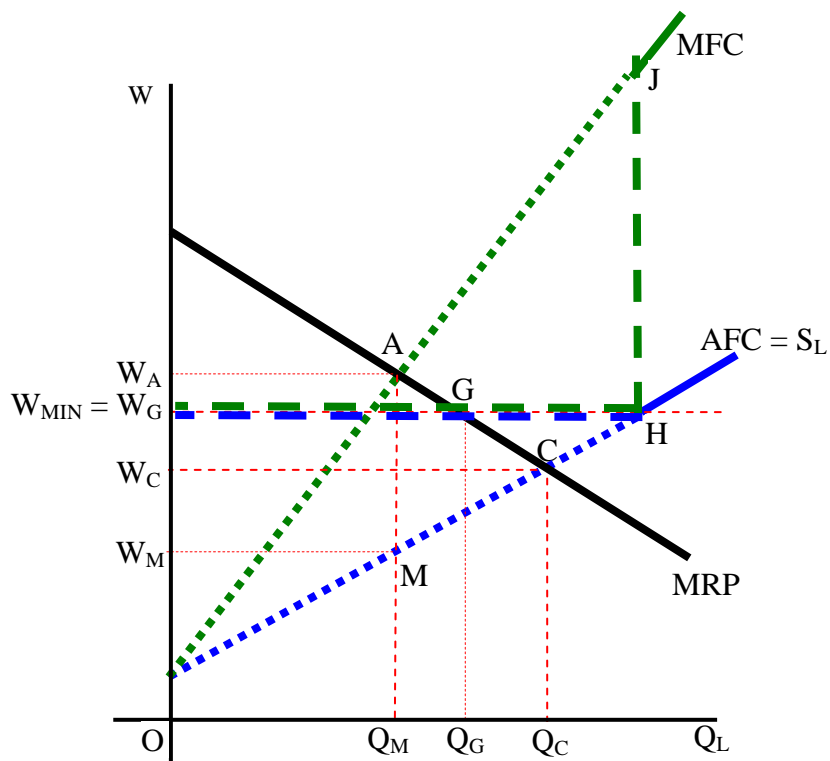Figure 4

Figure 5

Figure 6

Figure 7

W

MFC

R

AFC = S_L

$W_{MIN} = W_N$

N

A

P
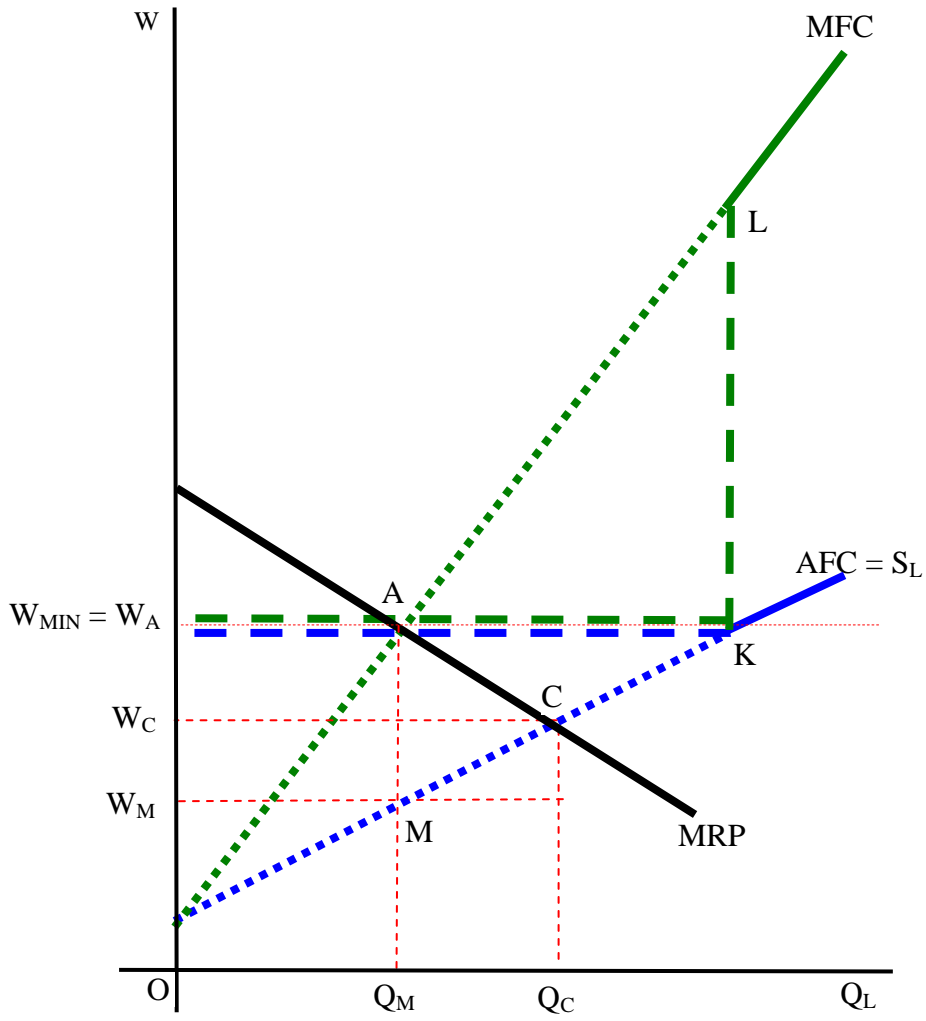
W_A

W_C

C

W_M

M

MRP

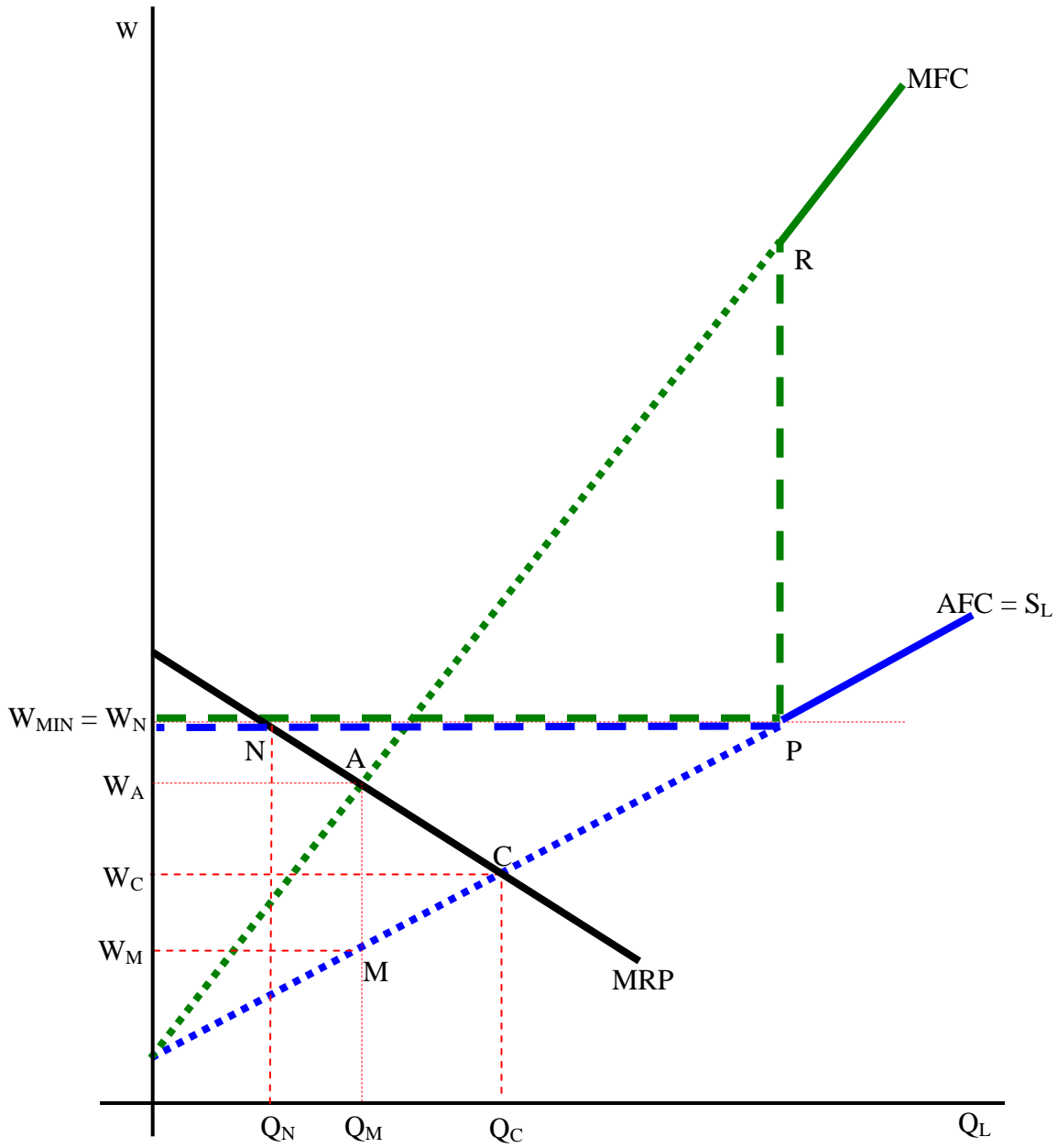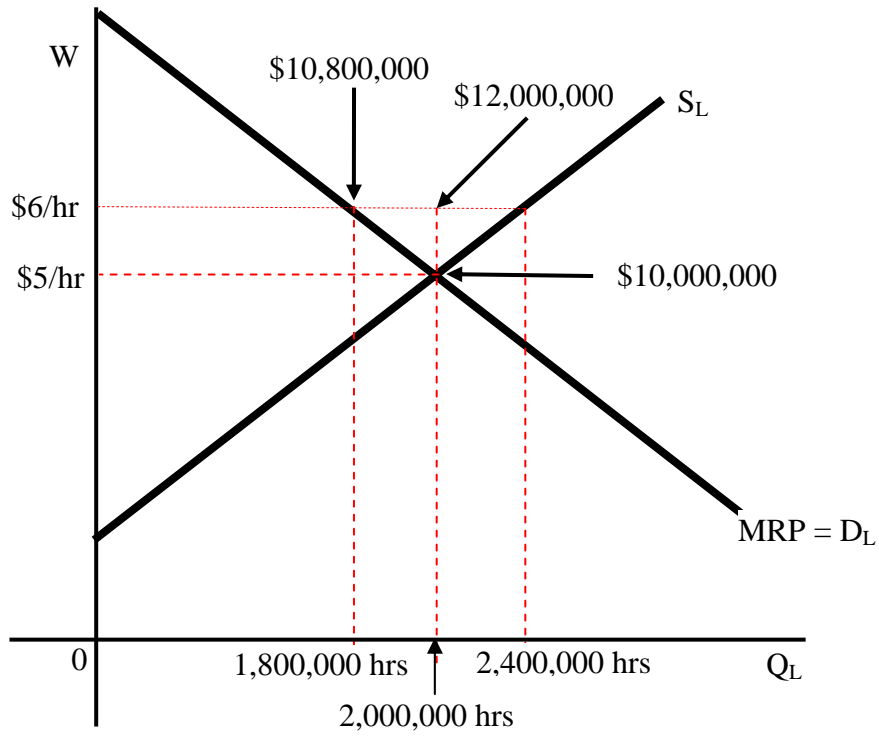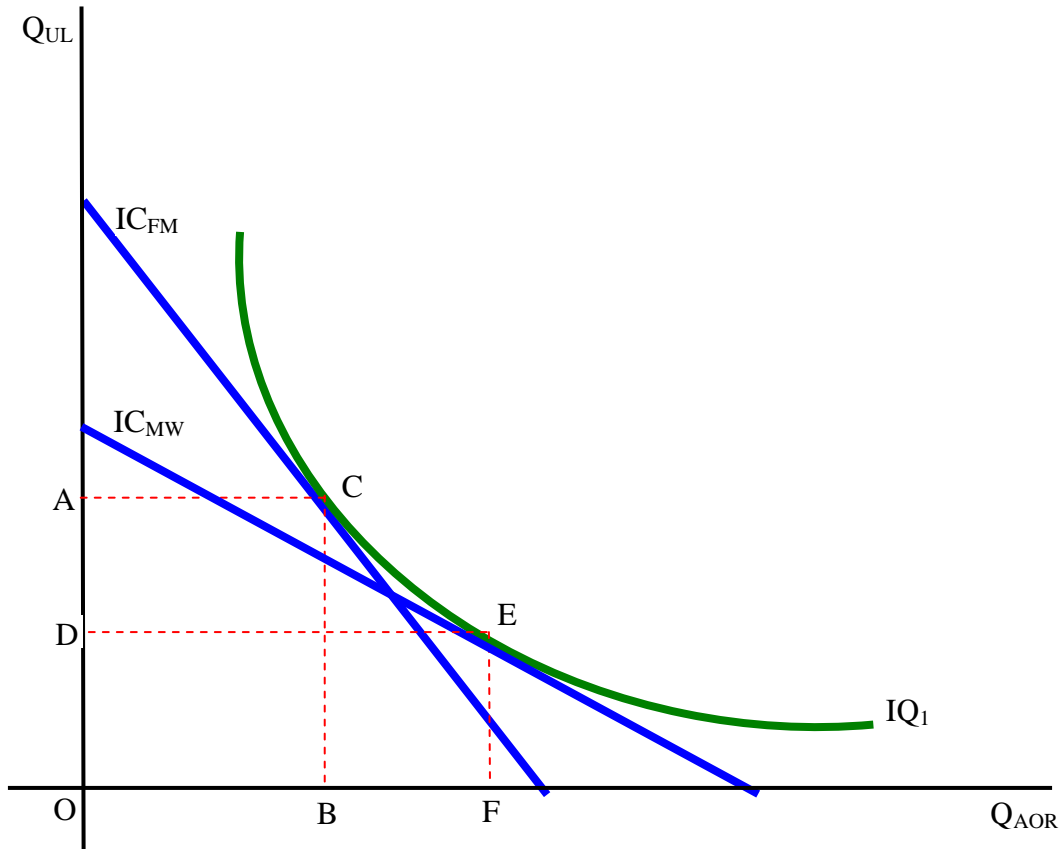Q_N Q_M Q_C Q_L

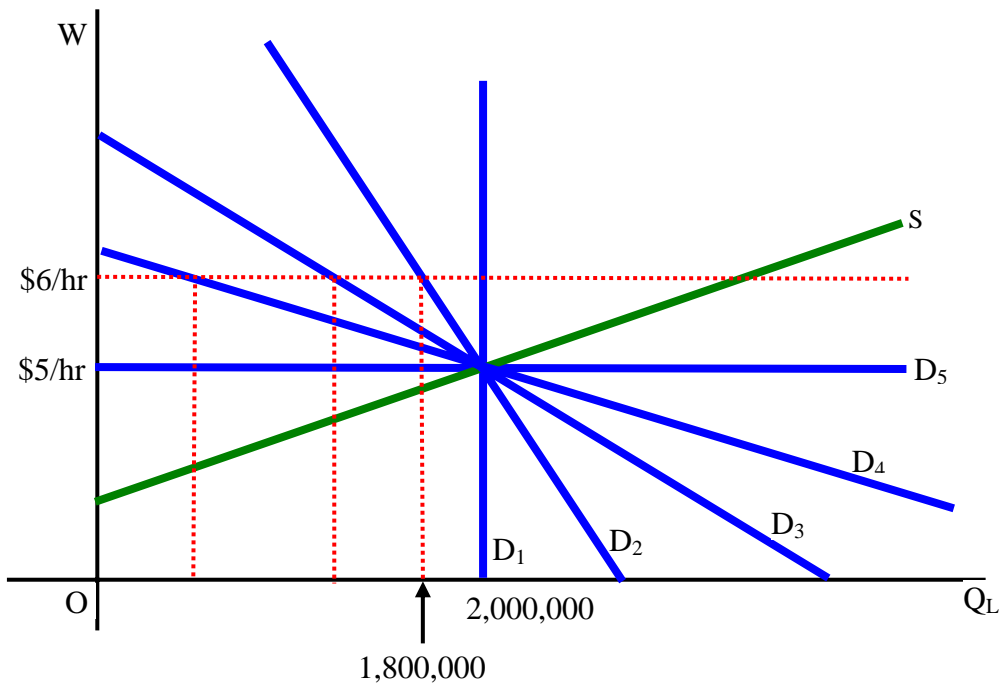Figure 8

Figure 9

Figure 10

Figure 11

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