

# A REVIEW OF MONOPSONY IN NIGERIA

<sup>1</sup>Idisi P. O., <sup>2</sup>Ogwu I. J., <sup>3</sup>Ogunkua N. D.

<sup>1,2,3</sup>Department of Agricultural Economics and Farm Management, University of Abuja, PMB 117, Abuja, FCT  
Corresponding Author: niffydek@yahoo.com, +2348038284438

---

**Abstract:** Monopsony is a market with one buyer many sellers, and no close substitute for the goods in question. It exist in both product and labour markets. A monopsony has buying or bargaining power in their market; this buying power means that a monopsony can exploit their bargaining power with a supplier to negotiate lower prices. It is often difficult to assess the strength of monopsony power, it depends on how the market is defined because if large enough, there will always be another buyer.

**Keywords:** Monopsony power, Product and Labor market in monopsony and one buyer many seller.

---

## 1. INRODUCTION

A monopsony is a market with one buyer, many sellers, and no close substitute for the goods in question. Monopsony exists in both product and labour markets. Monopsony is an important idea in economics but not often discussed. However, in general, economists use monopsony in the sense of "monopsony power", which means any situation where the buyer(s) have market power, and use that market power to lower the price they pay.

Economists use the term "monopsony power" in a manner similar to "monopoly power" as a shorthand reference for a scenario in which there is one dominant power in the buying relationship, so that power is able to set prices to maximize profits not subject to competitive constraints. Monopsony power exists when one buyer faces little competition from other buyers for that labor or good, so they are able to set wages and prices for the labor or goods they are buying at a level lower than the marginal utility created by that labor or good.

Monopsony is a market structure in which only one buyer interacts with many would-be sellers of a particular product. In the microeconomic theory of monopsony, a single entity is assumed to have market power over terms of offer to its sellers, as the only purchaser of a good or service, much in the same manner that a monopolist can influence the price for its buyers in a monopoly, in which only one seller faces many buyers.

## 2. MONOPSONY POWER

A monopsony has buying or bargaining power in their market, this buying power means that a monopsony can exploit their bargaining power with a supplier to negotiate lower prices; the reduced cost of purchasing inputs increases their profit margins.

### CLASSIC CASES OF MONOPSONY

It is hard to find markets that fully meet monopsony characteristics. Examples of government procurement, like military hardware, usually do not meet the requirement for many sellers, the government is a major buyer e.g. in military procurement – and might be able to use this bargaining power when confirming contracts for new military equipment and supplies. For instance, is only Nigeria government that can procure military equipment like fighter jet. In cases where there are many sellers, like small arms, the firms can usually find other buyers besides a single government.

Another classic case of monopsony is a government job, where one employer is the source of all jobs, which workers cannot easily move away, or if the workers skills are particular to the jobs offered by the company in question, a monopsony can result.

There are also examples in agriculture, when governments create marketing boards like Cocoa, Tobacco and Cotton corporation board to which farmers are required to sell their crops. For instance Nigeria Government concept of Crop Aggregated Centers (CACs).

The National Health Insurance Scheme (NHIS) is another example of a dominant buyer – in this case as a purchaser of prescription drugs from the pharmaceutical companies.

A classic theoretical example is a mining town, where the company that owns the mine is able to set wages low since they face no competition from other employers in hiring workers insofar as they are the only employer in the town and geographic constraints prevent workers from seeking employment in other locations.

Since there is rarely truly only one employer, examples that are more realistic include school districts where teachers have little mobility across districts so the district faces little competition from other schools in hiring teachers so they can set salaries lower than they would be in a competitive market.

### 3. EVALUATING THE ECONOMIC WELFARE EFFECTS OF MONOPSONY POWER IN MARKETS

In evaluation, it is important to remember some of the possible advantages from monopsony power:

**Improved value for money** – for example the National Health Insurance Scheme can use its bargaining power to drive down the prices of routine drugs used in NHIS treatments and ultimately this means that cost savings allow for more treatments within the NHIS budget. A monopsony can act as a useful counter-weight to the selling power of a monopolist e.g. the NHIS versus the global pharmaceutical companies.

**Producer surplus has a value as well as consumer surplus** – lower input costs will raise profitability that might be used to fund capital investment and research.

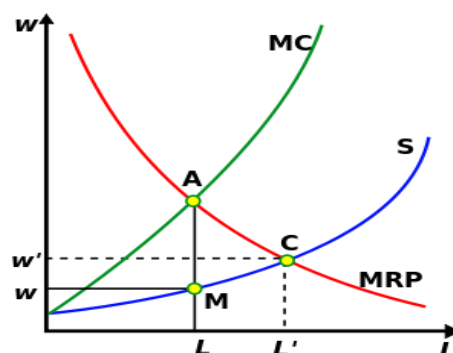
### 4. EMPIRICAL PROBLEMS OF MONOPSONY

The simpler explanation of monopsony power in labor markets is barriers to entry on the demand side. Such barriers to entry would result in a limited number of companies competing for labor. If the hypothesis was generally true, one would expect to find that wages decreased as firm size increased or, more accurately, as industry concentration increased. However, numerous statistical studies document shows significant positive correlations between firm or establishment size and wages, these results are often explained as being the result of cross-industry competition. For example, if there were only one fast food producer, that industry would be much consolidated. Nevertheless, that company would not be able to drive down wages via monopsonistic power if it were also competing against retail stores, construction, and other jobs utilizing the same labor skill set. This finding is both intuitive (low-skilled labor can move more fluidly through different industries) and supported by the data, which found that monopsony effects are limited to professional sports, and perhaps nursing, fields where skill sets limit moving to comparably paid other industries.

However, monopsony power might also be due to circumstances affecting entry of workers on the supply side, directly reducing the elasticity of labor supply to firms. Paramount among these are industry accreditation or licensing fees, regulatory constraints, training or education requirements, and the institutional factors that limit labor mobility between firms, including job protection legislation.

An alternative that has been suggested as a source of monopsony power is worker preferences over job characteristics. Such job characteristics can include distance from work, type of work, location, the social environment at work, etc. If different workers have different preferences, employers could have local monopsony power over workers that strongly prefer working for them.

### 5. STATIC MONOPSONY IN A LABOR MARKET



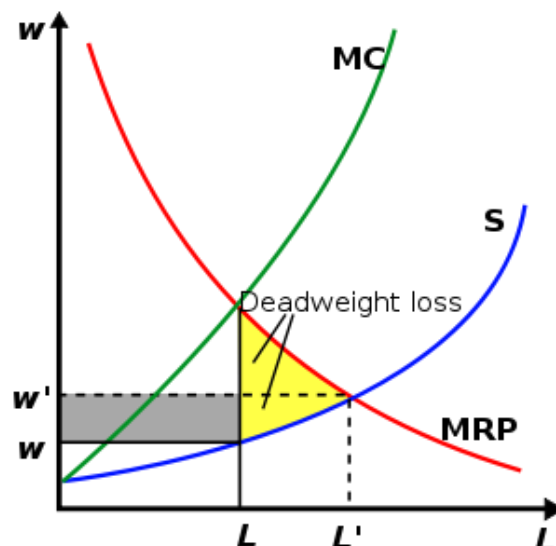
A monopsonist employer maximizes profits by choosing the employment level  $L$ , that equates the marginal revenue product ( $MRP$ ) to the marginal cost  $MC$ , at point  $A$ . The wage is then determined on the labor supply curve, at point  $M$ , and is equal to  $w$ . By contrast, a competitive labor market would reach equilibrium at point  $C$ , where labor supply  $S$  equals demand. This would lead to employment  $L'$  and wage  $w'$ .

The standard textbook monopsony model of a labor market is a static partial equilibrium model with just one employer who pays the same wage to all the workers. The employer faces an upward-sloping *labor supply curve* (as generally contrasted with an infinitely elastic labor supply curve), represented by the  $S$  blue curve in the diagram on the right. This curve relates the wage paid, to the level of employment, and is denoted as an increasing function

The left-hand side of this expression, is the marginal revenue product of labor (roughly, the extra revenue produced by an extra worker) and is represented by the red  $MRP$  curve in the diagram. The right-hand side is the marginal cost of labor (roughly, the extra cost due to an extra worker) and is represented by the green  $MC$  curve in the diagram. This is because the firm has to increase the wage paid to all the workers it already employs whenever it hires an extra worker. In the diagram, this leads to an  $MC$  curve that is *above* the labor supply curve  $S$ .

The first-order condition for maximum profit is then satisfied at point  $A$  of the diagram, where the  $MC$  and  $MRP$  curves intersect. This determines the profit-maximising employment as  $L$  on the horizontal axis. The corresponding wage  $w$  is then obtained from the supply curve, through point  $M$ . The monopsonistic equilibrium at  $M$  can be contrasted with the equilibrium that would obtain under competitive conditions. Suppose a competitor employer entered the market and offered a wage higher than that at  $M$ . Then every employee of the first employer would choose instead to work for the competitor. Moreover, the competitor would gain all the former profits of the first employer, minus a less-than-offsetting amount from the wage increase of the first employer's employees, plus profits arising from additional employees who decided to work in the market because of the wage increase. But the first employer would respond by offering an even higher wage, poaching the new rival's employees, and so forth. As a result, a group of perfectly competitive firms would be forced, through competition, to intersection  $C$  rather than  $M$ . Just as a monopoly is thwarted by the competition to win sales, minimizing prices and maximizing output, competition for employees between the employers in this case would maximize both wages and employment.

## 6. WELFARE IMPLICATIONS



The grey rectangle is a measure of the amount of economic welfare transferred from the workers to their employer(s) by monopsony power. The yellow triangle shows the *overall deadweight loss* inflicted on both groups by the monopsonistic restriction of employment. It is thus a measure of the *market failure* caused by monopsony. The lower employment and wages caused by monopsony power have two distinct effects on the economic welfare of the people involved. First, it redistributes welfare away from workers and to their employer(s). Secondly, it reduces the aggregate (or social) welfare enjoyed by both groups taken together, as the employers' net gain is smaller than the loss inflicted on workers.

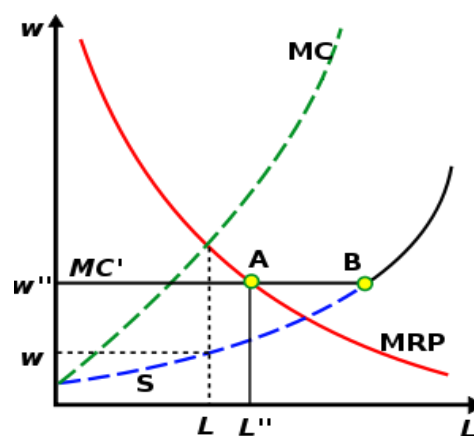
The diagram on the right illustrates both effects, using the standard approach based on the notion of economic surplus. According to this notion, the workers' economic surplus (or net gain from the exchange) is given by the area between the  $S$  curve and the horizontal line corresponding to the wage, up to the employment level. Similarly, the employers' surplus is the area between the horizontal line corresponding to the wage and the  $MRP$  curve, up to the employment level. The *social* surplus is then the sum of these two areas. Following such definitions, the grey rectangle, in the diagram, is the part of the competitive social surplus that has been redistributed from the workers to their employer(s) under monopsony. By contrast, the yellow triangle is the part of the competitive social surplus that has been lost by *both* parties, as a result of the monopsonistic restriction of employment. This is a net social loss and is called *deadweight loss*. It is a measure of the market failure caused by monopsony power, through a wasteful misallocation of resources.

As the diagram suggests, the size of both effects increases with the difference between the marginal revenue product  $MRP$  and the market wage determined on the supply curve  $S$ . This difference corresponds to the vertical side of the yellow triangle, and can be expressed as a proportion of the market wage, according to the formula:

The ratio has been called the rate of exploitation, and it can be easily shown that it equals the reciprocal of the elasticity of the labour supply curve faced by the firm. Thus the rate of exploitation is zero under competitive conditions, when this elasticity tends to infinity. Empirical estimates of by various means are a common feature of the applied literature devoted to the measurement of observed monopsony power.

Finally, it is important to notice that, while the gray-area redistribution effect could be reversed by fiscal policy (i.e., taxing employers and transferring the tax revenue to the workers), this is not so for the yellow-area deadweight loss. The market failure can only be addressed in one of two ways: either by breaking up the monopsony through anti-trust intervention, or by regulating the wage policy of firms. The most common kind of regulation is a binding minimum wage higher than the monopsonistic wage.

## 7. MINIMUM WAGE



With a binding minimum wage of  $w''$  the marginal cost to the firm becomes the horizontal black  $MC'$  line, and the firm maximises profits (which it can do due to a lack of competition) at A with a higher employment  $L''$ . However, in this example, the minimum wage is higher than the competitive one, leading to *involuntary unemployment* equal to the segment  $AB$ .

A binding minimum wage can be introduced either directly by law or through collective bargaining laws requiring union membership. While it is generally agreed that minimum wage price floors reduce employment, in the presence of monopsony power within the labor market the effect is reversed and a minimum wage *could* increase employment.

This effect is demonstrated in the diagram on the right. Here the minimum wage is  $w''$ , higher than the monopsonistic  $w$ . Because of the binding effects of minimum wage and the excess supply of labor (as defined by the monopsony status), the marginal cost of labor for the firm becomes constant (the price of hiring an additional worker rather than the increasing cost as labor becomes more scarce). This means that the firm maximizes profit at the intersection of the new marginal cost line ( $MC'$  in the diagram) and Marginal Revenue Product line (the additional revenue for selling one more unit. This is the point where it becomes more expensive to produce an additional item than is earned in revenue from selling that item.

It should be noted that this condition is still inefficient compared to a competitive market. The line segment represented by A-B shows that there are still workers who would like to find a job, but cannot due to the monopsonistic nature of this industry. This would represent the unemployment rate for this industry. This illustrates the there will be deadweight loss in a monopsonistic labor environment regardless of minimum wage levels, however a minimum wage law can increase total employment within the industry.

More generally, a binding minimum wage modifies the form of the supply curve faced by the firm, which becomes: where is the original supply curve and is the minimum wage. The new curve has thus a horizontal first branch and a kink at the point as is shown in the diagram by the kinked black curve  $MC' S$  (the black curve to the right of point B). The resulting equilibria (the profit-maximizing choices that rational companies will make) can then fall into one of three classes according to the value taken by the minimum wage, as shown by the following table:

Profit Maximizing Choice In A Monopsonistic Labor Market Depends Upon The Minimum Wage Level		
	Minimum Wage	Resulting Equilibrium
First Case	< than monopsony wage	where the monopsony wage intersects the supply curve (S)
Second Case	> monopsony wage but $\leq$ than competitive wage (the intersection of S and MRP)	at the intersection of the minimum wage and the supply curve (S)
Third Case	> competitive wage	at intersection where minimum wage equals $MRP$

Yet, even when it is sub-optimal, a minimum wage higher than the monopsonistic rate raises the level of employment anyway. This is a highly remarkable result because it only follows under monopsony. Indeed, under competitive conditions any minimum wage higher than the market rate would actually *reduce* employment, according to classical economic models and the consensus of peer-reviewed work. Thus, spotting the effects on employment of newly introduced minimum wage regulations is among the indirect ways economists use to pin down monopsony power in selected labor markets. This technique was used, for example in a series of studies looking at the American labor market that found monopsonies existed only in several specialized fields such as professional sports and college professors.

## 8. CONCLUSION

It is often difficult to assess the strength of monopsony power, it depends on how the market is defined because if large enough, there will always be another buyer. In reality, it is almost impossible to have a perfect monopsony market; there will always be another buyer for a particular goods and service at any given time.

## REFERENCES

- [1] Kerr, Prue; Harcourt, Geoff (2002). Joan Robinson: *Critical Assessments of Leading Economists*. Taylor & Francis. pp. 2–3. ISBN 0-415-21743-1
- [2] Thornton, Rupert J. (2004). "Retrospectives: How Joan Robinson and B. L. Hallward Named Monopsony". *Journal of Economic Perspectives*. **18** (2): 257–261. doi:10.1257/0895330041371240. Archived from the original on 2015-09-20.
- [3] "Minimum Wage Effects in the Post-welfare Reform Era" (PDF). 2007. Archived (PDF) from the original on 2018-05-06.
- [4] "The Minimum Wage and Monopsony". The Library of Economics and Liberty. 2015. Archived from the original on 2018-02-13.
- [5] "Is There Monopsony in the Labor Market? Evidence from a Natural Experiment" (PDF). 2010. Archived (PDF) from the original on 2017-08-09.
- [6] "Archived copy" (PDF). Archived (PDF) from the original on 2014-02-03. Retrieved 2014-02-01.
- [7] <http://dataspace.princeton.edu/jspui/bitstream/88435/dsp01nk322d34x/1/540.pdf>
- [8] "Monopsony, mobility, and sex differences in pay : Missouri school teachers". econbiz.de. 2011. Archived from the original on 2014-02-03.

- [9] Bhaskar, V. To, Ted (2001). *"Minimum Wages for Ronald McDonald Monopsonies: a Theory of Monopsonistic Competition"*. The Economic Journal. **109** (455): 190–203. doi:10.1111/1468-0297.00427.
- [10] V. Bhaskar, Alan Manning and Ted To (2002). *"Oligopsony and Monopsonistic Competition in Labor Markets"*. Journal of Economic Perspectives. **16** (2): 155–274. doi:10.1257/0895330027300.
- [11] Brummond, Peter (2010). *"Evidence of Monopsony in the Labor Market of a Developing Country"* (PDF). Cornell University. Archived (PDF) from the original on 2018-04-05.
- [12] Samuel Muehleman, Paul Ryan, Stefan C. Wolter (2013). *"Monopsony Power, Pay Structure and Training"*. Industrial and Labor Relations Review. **66** (5). doi:10.1177/001979391306600504. Archived from the original on 2018-04-05.
- [13] Douglas O. Staiger, Joanne Spetz, Ciaran S. Phibbs (2010). *"Is There Monopsony in the Labor Market? Evidence from a Natural Experiment"* (PDF). Journal of Labor Economics. **28** (2). doi:10.1086/652734. Archived (PDF) from the original on 2017-08-09.
- [14] Barry Hirsch, Edward J. Schumacher (1995). *"Monopsony Power and Relative Wages in the Labor Market for Nurses"* (PDF). Journal of Health Economics. **14** (4): 443–476. doi:10.1016/0167-6296(95)00013-8. Archived (PDF) from the original on 2017-08-10.
- [15] Barry T. Hirsch, Edward J. Schumacher (2005). *"Classic or New Monopsony? Searching for Evidence in Nursing Labor Markets"*. Health Care Administration Faculty Research. **24**: 969–989. doi:10.1016/j.jhealeco.2005.03.006. Archived from the original on 2015-09-10.
- [16] Krugman, Paul. *"Amazon's Monopsony Is Not O.K."* [www.nytimes.com](http://www.nytimes.com). op-ed: New York Times. Archived from the original on 24 June 2017. Retrieved October 19, 2014.
- [17] <https://www.ajol.info/index.php/index/browse/category>