

THE PHILLIPS RELATIONSHIP AND SEARCH THEORY

Search Theory contains an implied explanation of the Phillips relationship. Like the Phillips curve, Search Theory can illustrate the inverse relationship between inflation and unemployment.

The Phillips curve is based on a century of data, from 1847 to 1947. It states the relationship between wages and unemployment. This relationship was then used to accurately predict economic variables from 1947 to 1957. The curve itself does not attempt to explain why the relationship exists, but simply demonstrates that a relationship does empirically prevail. Furthermore, Phillip does not say if a change in price leads to a change in unemployment, or if a change in unemployment leads to a change in the price level.

Within the Phillips curve, it is assumed that wage increases and inflation are related. Increased employment leads to stronger unions and ultimately higher wages leading to cost push inflation. Demand pull inflation occurs as increases in demand (due to higher wages) "pull" prices higher.

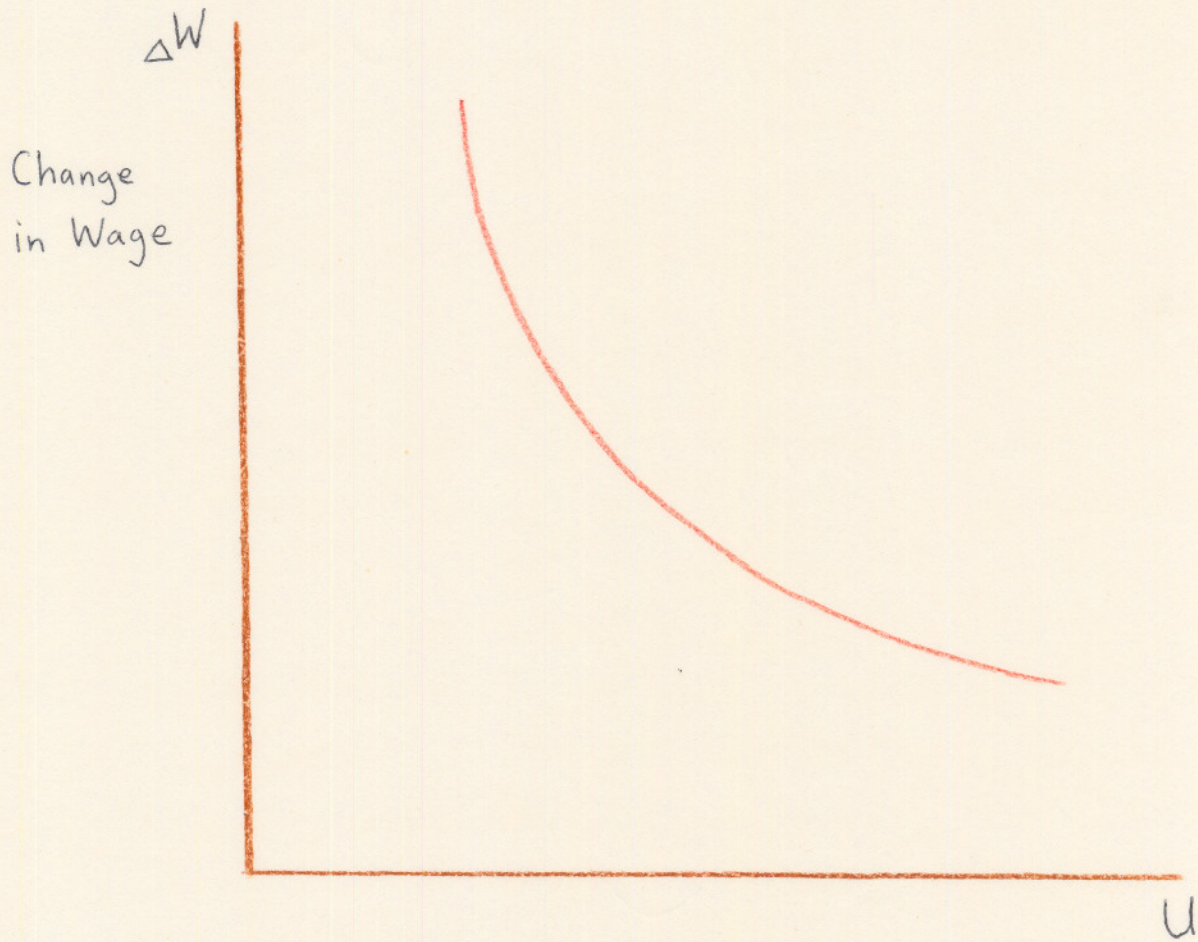
One of the problems of using the Phillips curve in Search Theory is the lack of universal support for the relationship. Some Economists argue the relationship in the empirical world has never existed. Others claim that the curve is valid, but has shifted, due to factors like incomes policies and OPEC. Still others, like Milton Friedman main-

tain that the curve has become vertical, leaving no trade-offs between inflation and unemployment.

The Phillips Curve is displayed on graph 6. "U," on the horizontal axis, represents unemployment. The change in the wage rate, placed on the vertical axis, is represented by the change in "W." "P" is the actual curve.

Search Theory attempts to explain the Phillips curve via a Micro-Economic explanation. The critical assumption, on a Macro-Economic level is that people search better while unemployed and therefore leave jobs to search for a more preferred position. Thus, the classical assumption of the number of vacancies equaling the number of unemployed is firmly held in Search Theory.

Search Theory's explanation of Phillips is straight forward. During expansion, demand is assumed to increase. This in turn causes several other variables to change. Prices are forced upwards causing the marginal revenue productivity of labor also to increase. Finally, wages augment to compensate for the new market conditions. Because we assumed there to be imperfect knowledge in the labor input market, workers, unaware of the Macro-Economic trends, will fail to take the increase in market wage rate into account when analyzing job offers received relative to the reservation wage. Therefore, it becomes more and more likely, during expansion, that the searcher will obtain an offer



"The Phillips Curve"

graph 6

greater than the reservation wage, and be "tricked" into employment. The rise in wages and prices is thus associated with increases in employment.

During recession, the explanation is simply reversed. As demand declines, real prices also come down. With this, the marginal revenue productivity of labor falls resulting in a diminution of the offered market wage rate. Again, if searchers remain unaware of this Macro-Economic trend, it will be unlikely that an offer will exceed the reservation wage of the searcher. Because these individuals left jobs to search for new employment, or have been offered positions since beginning the search process, they are considered voluntarily unemployed. This is consistent with the Monetarist view of the labor market.

Search Theory predicts even in an economy free of fluctuations in demand, unemployment could still exist. The passing of time, new styles, products, means of production, attitudes, and the like, result in the replacement of older ways. Therefore, while overall demand may be constant, fluctuations within limited areas of a given economy's demand for labor may result. This particular form of fluctuation causes what has been termed "frictional unemployment," or according to other economists, a "normal" or "natural rate" of unemployment.

CONCLUSIONS ON SEARCH THEORY

Some conclusions concerning Search Theory's explanation of the Phillips curve can be made. The description is unusual because it reverses the normal and assumed causation. Customarily, explanations assert a change in unemployment ends up altering the wage rates. But, in Search Theory, using its view of expansion and recession, the causation is switched around so that a change in wage leads to a change in unemployment. In addition, the model provides explanation for frictional unemployment and the notion that workers do search for jobs as opposed to simply observing market rates.

Search Theory supports the notion of wage controls. As employees and employers observe the government fighting inflation, causing unemployment to rise, both parties will adjust their expectations to match the new environment. The controls would also be imposed not to set wages below an equilibrium level, thus creating shortages, but to lower wages to a level consistent with equilibrium, thus cutting the surplus. No price controls would therefore be needed under such a program.

The search process tends to provide a "more fair" wage. As more individuals compare open positions, it will be less and less likely an employer can fill a vacancy paying a "low" wage. If "non-aggressive" searchers enter the job market, they will find employers competing to attract workers, for-

cing up wages. A "non-aggressive" searcher benefits, in this way, unknowingly, from others' persistence.

WEAKNESSES

Search Theory, although an ingenious assertion, still has many critics among the many non-monetarists. Objections to the model include its Classical orientation, empirical weaknesses, and assumptions.

Because Monetarist thought is not universally accepted, neither can Search Theory be unquestioned. Post-Keynesians, believing in market rigidities, effects of unions, and their concept of demand in both input and output markets in addition to other Keynesian assumptions, have very fundamental problems with the implications of Search Theory.

Empirical data present complications for Search Theory. Search Theory pursues the belief that workers will more readily give up a position during a recession to look for a new job. Similarly, the model assumes that during a boom economy, employed individuals will be less inclined to leave an employer. Empirical evidence has suggested however that the exact opposite is true. Workers do not abandon employment during periods of recession but rather tend to look for better employment during expansionary times. Also, it inaccurately predicts employers will take on additional help at any point in the business cycle.

Assuming the searcher to have imperfect knowledge about the job hunting process brings in other empirical deficiencies. With the advent of mass media news, that workers are ignorant of Macro-Economic trends seems a questionable assumption. If workers do in fact understand Macro-Economic trends, they will adjust their reservation wage to accommodate the change in market conditions, making the Search Theory analysis invalid.

Search Theory implies that a great lack of information in the labor market can exist for long periods. Misinformation is the only excuse Search Theory offers to explain why employers raised wages amid the 1970-1971 recession, or indeed the Great Depression when, "With about 24 per cent of the work force unemployed in 1933, real wages in manufacturing were higher than in 1929!"⁽⁸⁾ Even after 1933, in spite of incredibly high unemployment, money wages continued to climb each year.

Unemployment is assumed necessary for effective search. An initial objection to this assumption is the option of taking the first job offer and continuing the search process. It is true that an unemployed individual will have more time to search for a new position. However, newspapers, the telephone, job services, and other modern search tools eliminate the need for a large time commitment to the search endeavor. In some cases an employed person can search more

⁸ Donald F. Gordon, "A Neo-Classical Theory of Keynesian Unemployment," Economic Inquiry, 1974, pp. 441.

effectively than an unemployed person, given that employers do not have complete information about their applicants and a person who has a job already is viewed as more "employable," or in other words less risky, than an unemployed individual.

Finally, Search Theory underestimates the risk involved in giving up a job. It is assumed there are a large number of jobs to be found at varying wage rates. In reality, however, a searcher may not be offered anything for quite some time, resulting in prolonged involuntary unemployment. In theory, there is no shortage of positions available. The model also assumes that a searcher is immediately able to see all aspects of an offer to determine exactly how preferable the offer is in order to decide whether to accept or reject. Unfortunately, in real life, this knowledge does not exist. A new employee may be into a new job for a number of weeks before finally realizing whether a job is preferable. Non-monetary factors like inter-employee relationship, hours, management, organization-- in short, all other factors besides pay that make a job "worth it" or not are not readily identifiable at the very start of new employment. Furthermore, an applicant not only needs to know the current wage offer, but requires at least a notion of future employment and wages. Some variations of the Search Model include assumptions that an employment offer will continue "as is" without change or end, or that a wage will remain exactly constant at least in the

medium run, or both. Therefore, in real life, there is less certainty and consequently greater risk involved in giving up a job to search for a better one than the theory asserts.