Theories of unemployment

Why does unemployment arise, and what can be done about it? Economists favor different theories, depending on whether they take a more Classical or a more Keynesian view.

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The Classical Theory of Unemployment

In Classical economic theory, unemployment is seen as a sign that smooth labor market functioning is being obstructed in some way. The Classical approach assumes that markets behave as described by the idealized supply-and-demand model: the labor market is seen as though it were a single, static market, characterized by perfect competition, spot transactions, and institutions for double-auction bidding.

Such an abstract labor market is depicted in Figure 1. In this case “quantity” is not measured as a number of things (like apartments or swimsuits) but rather a quantity of labor services. We can think of this quantity as being measured, for example, by the number of workers working full days over a given time period. The “price” of labor is the (real) wage (in this case, per day). Workers supply labor, while employers demand it. We assume that every unit of labor services is the same, and every worker in this market will get exactly the same wage. The equilibrium wage in this example is WE and the equilibrium quantity of labor supplied is at L_E.
In Figure 1, where the market is free to adjust, there is no involuntary unemployment. Everyone who wants a job at the going wage gets one. There may be many people who would offer their services on this market if the wage were higher—as the portion of the supply curve to the right of L₄ demonstrates. But, given the currently offered wage rate, these people have made a rational choice not to participate in this labor market.

Within the Classical model, the only way true, involuntary unemployment can exist is if something gets in the way of market forces. The presence of a legal minimum wage is commonly pointed to as one such factor. As illustrated in Figure 2, if employers are required to pay a minimum wage of W* (“W-star”) that is above the equilibrium wage, this model predicts that they will hire fewer workers. At an artificially high wage W*, employers want to hire only L₄ workers. But at that wage, L₅ people want jobs. There is a situation of surplus. The market is, in this case, prevented from adjusting to equilibrium by legal restrictions on employers. Now there are people who want a job at the going wage, but can’t find one. That is, they are unemployed.

The minimum wage only affects a portion of the workforce, however—people who are relatively unskilled, including many teenagers. But unemployment tends to affect people at all wage levels. Classical economists suggest other “market interference” reasons for unemployment, as well. The economy might provide less than the optimal number of jobs, they believe, because:

- regulations on businesses reduce their growth, restricting growth in the demand for labor
- labor-related regulations (such as safety regulations, mandated benefits, or restrictions on layoffs and firings) and labor union activities increase the cost of labor to businesses, causing them to turn towards labor-saving technologies and thus reducing job growth
- public “safety net” policies such as disability insurance and unemployment insurance reduces employment by causing people to become less willing to seek work

Labor-market recommendations derived from a Classical point of view tend to focus on getting rid of regulations and social programs that are seen as obstructing proper market behavior. Like other Classical proposals, such labor market proposals assume that the economy works best under the principle of laissez-faire—“leave it alone.”

Imperfect Labor Markets

The Classical theory of labor markets depends on rapid market adjustment—in particular, the elimination of any labor surplus through falling wages and a resulting full-employment equilibrium at a lower wage rate. But is this realistic? John Maynard Keynes, reflecting on the experiences of the Great Depression, pointed out that that certain aspects of real world human psychology and institutions make it unlikely that wages will fall quickly in response to a labor surplus. No one likes to feel that they are losing something. (How would you feel if your boss told you she was cutting your wage?) Employers may be slow to reduce wages because they fear that workers will strongly resist such a move—perhaps with strikes, mass demonstrations, or even violence.

As the Classical-Keynesian synthesis took form, many economists came to favor a more Keynesian explanation for cyclical unemployment. Given enough time, they argued, markets might be able to adjust as described in the Classical model. But Keynesian-oriented economists also developed “sticky wage” theories, which hypothesize that wages may stay at a level above equilibrium for some time. Wages may eventually adjust in the way shown in the Classical model, but too slowly to keep the labor market always in equilibrium.

In addition to psychological resistance to wage cuts, as mentioned above, a minimum wage might also make wages "sticky". Wages may also become set at particular levels by long-term contracts, such as many large employers negotiate with labor unions.

More recently, economists have also come up with other theories. One is that the efforts of "insiders" may contribute to keeping wages high. "Insiders" are people who already have jobs within an organization. Insiders may be able to keep their wages high by setting up various barriers that prevent their employer from dismissing them and hiring lower-priced “outsiders.” Insiders may have contracts that specify a high wage and that make them difficult to fire. Or they may refuse to cooperate with new workers or harass them, reducing new workers’ productivity. In the insider-outsider theory, employed workers use the power they derive from such labor turnover costs to keep their wages artificially high.
Yet another recently-developed explanation is that employers may find it to their advantage to pay employees wages that are somewhat higher than would be strictly necessary to get them to work. Managers don’t just offer “the going wage” and then sit back. They must attract, train, and motivate workers if their enterprise is to be productive. Efficiency wage theory suggests that paying higher-than-necessary wages may improve employee productivity. Workers may be healthier and better nourished, and therefore more able to do quality work, when they are better paid. (This is especially true when talking about wage rates at the low end of the scale.) Also, workers may quit less often if they know they are getting “a really good deal” from their employer than if they are getting barely enough to motivate them to take the job, or just the same as they could get anywhere else. A lower likelihood of quitting makes employees more valuable to an employer because the employer saves on the costs of training new workers. Workers may also work more efficiently if being caught shirking means potentially losing their “really good deal.” If the higher-than-necessary efficiency wages creates a pool of unemployed people, this only further reinforces employees’ incentives to work hard because then they will be even more afraid of losing their good jobs.

In sum, in the Classical-Keynesian synthesis, legally or contractually-set wages, fear of worker unrest, the power of insiders, and efficiency wages are thought sometimes to cause wages to be "sticky." By making real world labor markets work differently than the market pictured in the classical model, these phenomena mean that it is unrealistic to expect that labor markets can adjust rapidly to maintain full employment.

What sort of policies do "sticky wage" theories lead to? To the extent that unemployment is seen as a real problem in these theories, more government activity to relieve unemployment-related hardship may be proposed, such as aggregate demand policies, or programs of unemployment benefits or job creation. Some economists also argue that a moderate level of economy-wide price inflation tends to relieve some "sticky wage" unemployment. How could this be so? Suppose you are working for $12 per hour now, and your employer says he wants to cut your wage to $10 per hour. You would probably resist—especially if you see that other people are not suffering such wage cuts. But suppose, instead, that your wage stays at $12 per hour, and, over time, inflation reduces the purchasing power of your wage to $10 per hour (in terms of prices of the base year). Your nominal wage has stayed the same, but your real wage (and thus your real cost to your employer) has fallen. Since this has happened more subtlety—and is felt more economy-wide—than a cut in your personal nominal wage, you may not feel as compelled to resist. According to some theories, such a drop in the wage (in real terms) should cause employment to increase.

**Unemployment and Aggregate Demand**

While Keynesian economics is often closely associated with "sticky wage" theories, Keynes’ own critique of Classical views actually went much farther. He questioned whether the theory of a smoothly functioning labor market, as portrayed in Figure 1, is really a good starting place for thinking about macroeconomics and unemployment. This view is carried forward today by a number of economists (who sometimes call themselves Keynesian, or also Post Keynesian or Institutionalist).

Recall that the supply-and-demand diagram was meant to be a way of thinking about a single, spot market in which a single, completely standardized good is being traded. But "the economy" as a whole is not just one smoothly-functioning market in which prices move to equate quantity supplied and quantity demanded. It is made up of markets for potatoes and markets for health care, markets for steelworkers and markets for schoolteachers, markets for real estate and markets for credit, markets for goods and services to be delivered now and for goods and services to be delivered months (or longer) in the future—as well as nonmarket institutions and transfers of all sorts. All these arenas of economic action have their own institutional peculiarities, and all are interwoven by a network of flows of incomes and payments. Hence, economists who are critical of Classical theory see diagrams like Figure 1 and 2, which portray only an idealized, abstract, detached, and institutionless labor market, as fundamentally misleading and beside the point.
In the real world, where issues of motivation, labor relations, and power are important, even the Classical idea that minimum wages cause substantial unemployment may be called into question. In a well-known study, economists David Card and Alan Krueger found that a moderate increase in the minimum wage in New Jersey did not cause low-wage employment to decline, and may even have increased it. The study came under fire from economists who believed (given graphs like Figure 2) that such a result simply could not be true. But the Classical world assumes perfect competition, whereas real-world employers may have enough power in the labor market to be able to pay workers less than what they are worth. Labor markets seem to be more complicated than a simple supply-and-demand model suggests.

Keynes' own focus was on the level of aggregate demand in the economy, and on businesses expectations about future profitability. Keynes believed that even if wages did fall quickly in a number of labor markets, this might do more harm than good. Workers who have lower wages will have less to spend. If they do not buy as much, this reduces demand for the goods being produced by businesses all over the economy. If businesses cannot sell their goods, they will tend to cut back on their investments and on the number of workers they employ. Prices as well as wages may fall (as was observed during the Great Depression), keeping real wages constant and thus giving employers no incentive to hire more workers. Low aggregate demand for goods and services could lead to a vicious cycle of unemployment, low incomes, and low spending in the economy as a whole, as illustrated in Figure 3. Rather than blaming unemployment on "the wage being too high," as illustrated in a graph of a hypothetical unified national labor market, Keynes identified the cause of cyclical unemployment as insufficient labor demand in many individual labor markets, economy-wide, leading to a glut of workers overall. Fixing the problem of unemployment in a recession or depression, then, to Keynes and his followers, is not just a matter of making labor markets work more smoothly. Rather, aggregate demand in the economy has to be increased in order to stimulate hiring.

Is There a “Natural” Rate of Unemployment?

Because of macroeconomists' special interest in cyclical unemployment, many have adopted a somewhat unfortunate term—the “natural” rate of unemployment—to describe the rate of unemployment that they hypothesize would occur in the absence of cyclical fluctuations. Figure 4 shows what might happen in a highly stylized business cycle in which actual unemployment fluctuates around a “natural rate.” Booms are said to reduce unemployment below a stable “natural rate,” and recessions to make unemployment rise above it.
A related concept is that of the non-accelerating inflation rate of unemployment (NAIRU). This is conceptualized as the lowest rate of unemployment that can be maintained without causing the economy to "overheat." The concept of the NAIRU can best be understood by looking at the Phillips Curve graph presented in Figure 5. In this graph, you can see that inflation rises steadily but not dramatically as unemployment is reduced towards 4%. But as the unemployment rate passes below about 4%, the Phillips Curve distinctly bends upwards, with inflation rising more sharply from year to year. Since unemployment below about 4% seems to be associated with rapidly rising inflation, we could say that the NAIRU during the 1963-1969 period appears to be about 4%, as represented in the graph by the vertical line.

If the world were as simple as these two figures suggest, the "natural rate" and the NAIRU would mean essentially the same thing. Unemployment higher than the NAIRU, like unemployment higher than the "natural rate," would be associated with low production and a sluggish economy. Unemployment lower than NAIRU or "natural rate" would be associated with higher production and inflation.

But the world is not so simple. Over longer periods of time, it is clear that if a NAIRU exists at all, it certainly moves around. Some economists argue that NAIRU is a useful concept, even if it can be difficult to say just what number should be associated with it. Other economists believe the concept is no longer useful.

The concept of a "natural rate" has even more significant problems. First, the word "natural" sometimes leads people to think that there is something right or inevitable about unemployment at the "natural" rate—no matter how much noncyclical unemployment (such as structural unemployment from shifts in international trade) people may be suffering. Second, the concept reflects one particular theory, that of the Classical school of macroeconomics. The inventor of the "natural rate of unemployment" concept was economist Milton Friedman, who is a great believer in the efficiency of market forces.

Second, as with the NAIRU, the study of history shows that it is very difficult to match a particular number with the "natural rate" idea. Figure 6 reproduces data from the previous section. You can see that the actual pattern is not the flat line suggested in theory in Figure 4. If we were to suppose that unemployment were fluctuating around some specific rate, it might appear that this rate climbs during the 1970s and then gently falls after the early 1980s, as
illustrated in Figure 6. (This is one of many possibilities. Others might picture the natural rate rising in steps like a staircase, or in other patterns.)

A “natural rate” that changes over time is a slippery concept, however. A current unemployment rate of 5% would be considered excessive due to cyclical considerations if you believe that the “natural rate” is 4%. But the same rate would be considered to be a sign of a vibrant macroeconomy if you believe that the “natural rate” is 6%. Because of this problem, a number of economists do not believe the “natural rate” concept is very useful.

While economists from the Classical school believe that the economy will tend to return to an equilibrium position whenever it is pushed away, and thus favor the concept of a “natural” rate, other economists question whether an economy is really a stable system at all. Some economists, including John Maynard Keynes and Joseph Schumpeter (1883 –1950) envisioned economies as more dynamic and evolving. While Keynes is often associated with a rather pro-government political stance, and Schumpeter with the more libertarian, small-government views held by adherents of the Austrian School of economics, both Keynes and Schumpeter stressed the inherent instability of economic systems. To them, factors such as uncertainty, innovation, institutions, and technological advance made economies quite unpredictable.

To use a hiking analogy, Classically-minded economists believe that the path of an economy is like a walking trail already laid out through the woods. While a hiker (economy) sometimes steps off the trail (diverges from the “natural” path), he always returns to it. The path of an economy as envisioned by Keynes and Schumpeter and others, on the other hand, is more akin to the path taken by a hiker who ventures into the unknown wilderness, creating the trail as she goes. As society and institutions evolve, these economists and their followers believe the economy can move in any direction, often quite unpredictably.

Further Reading

- Global Development And Environment Institute, Tufts University

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The Global Development And Environment Institute (GDAE – pronounced "gee-day") was founded in 1993 to combine the research and curricular development activities of two Tufts programs: the Program for Sustainable Change and Development in the School of Arts and Sciences (directed by economist, Neva Goodwin), and the Center for Environmental and Resource Policy at The Fletcher School of Law and Diplomacy (Directed by William Moomaw, a chemist and environmental policy specialist). The ... (Full Bio)

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