

# FRBSF WEEKLY LETTER

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## Minimum Wage Rate

Legislation has been introduced in the Congress that would raise the federal minimum wage rate by more than 50 percent over a four year period. The proposed changes would have a direct effect on approximately 15 percent of the labor force.

Traditionally, the economic debate over the minimum wage has centered on the distributional effects of the law—who gains and who loses. This *Letter*, however, focuses on the impact of the proposed changes on the economy as a whole. The implications are straightforward: the proposed hikes in the minimum wage rate would mean a higher rate of unemployment, lower real output, and higher prices, other things held equal. The increase in unemployment would be among lower-wage workers, the group that the minimum wage law is supposed to help. The hike in prices also would be troublesome, coming at a time in the economic expansion when other factors such as the depreciation of the dollar are accelerating the rate of inflation.

### Original legislation

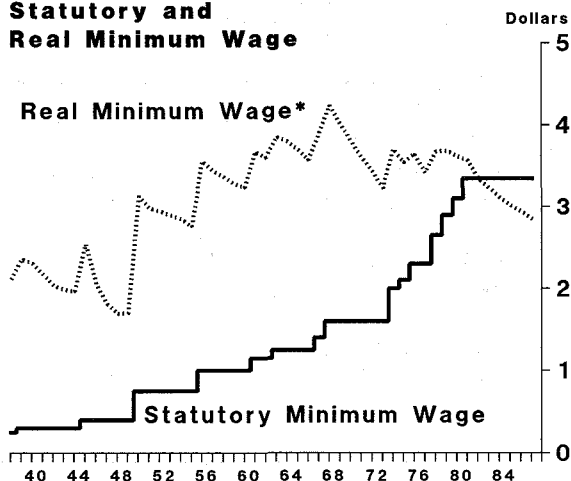
The federal minimum wage was adopted as part of the 1938 Fair Labor Standards Act (FLSA). In the FLSA, the Congress established its authority to regulate working conditions for jobs related to interstate commerce. The original Act set the minimum wage at \$0.25 per hour, and provided for it to be increased to \$0.40, a level that was attained by 1945.

Over the years, the Congress has amended the FLSA seven times to increase the statutory minimum wage rate. Some of these amendments were one-time changes, but others like the most recent amendment (in 1977) provided for a series of changes over several years. The solid line in the Chart depicts these changes in the statutory rate.

Through the mid-1960s, these increases in the statutory minimum wage rate led to a rising real, or inflation-adjusted, minimum wage. (See the dotted line in the Chart.) However, in the late 1960s and early 1970s, the Congress did not increase the nominal minimum wage even though

the price level tended to rise over this period. As a result, the real minimum wage rate declined. Amendments to the FLSA in 1974 and in 1977 offset most of the effects of the rapid inflation in the latter part of the 1970s, but did not fully offset the earlier decline. Since 1981, the statutory minimum wage rate has not changed, and the real minimum wage has declined by more than 20 percent over the past seven years.

### Statutory and Real Minimum Wage



\*Statutory minimum wage deflated by the GNP implicit price deflator

At least as important as the hikes in the statutory minimum wage are the increases in the number of employers covered by the FLSA. The minimum wage provisions of the FLSA did not, and still do not cover all firms, as exemptions were made on the basis of firm size, product, and activity. In 1938, "coverage" of the federal minimum wage was about 43 percent of all nonsupervisory employees in private nonagricultural sectors, while today the coverage ratio exceeds 80 percent. (In most states, the effective coverage is higher than that stipulated by federal law since state minimum wage rates extend to many firms not covered by the federal minimums.) The rise in the coverage of the minimum wage is significant since, with greater coverage, changes in the minimum wage are more likely to have effects on the overall economy.

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## Proposed amendments

The bills introduced in both the House and the Senate originally called for the minimum wage rate to increase to \$4.65 over three years, and then be set equal to at least half of the average national hourly wage rate in subsequent years. The House bill, passed by the Education and Labor Committee, now calls for an increase to \$5.05 per hour over four years, but with no provision for indexation to the average wage rate.

As originally passed by the Committee, the House bill provides for the minimum wage rate to increase in yearly steps to \$3.85, \$4.25, \$4.65, and finally \$5.05. Assuming that the average wage rate increases at a 3 percent annual rate through 1992 and the proposed legislation becomes effective next year, the House proposal would raise the minimum wage close to the Senate bill's target of 50 percent of the average wage rate. Therefore, the main difference between the House and Senate bills would be the potential for further increases under the indexation provision of the Senate bill. With such automatic adjustments, changes in the minimum wage rate would have a more permanent impact on the economy under the Senate proposal.

## Economic efficiency

The changes in the minimum wage being considered by the Congress are substantial—a 50 percent increase in four years. The impact of these changes depends in part on whether salaries of those most directly affected—lower-wage earners—are determined in a competitive market. Economic theory suggests that the only instance when minimum wage legislation will enhance economic efficiency for the economy as a whole is when employers have market or monopsony power over lower-wage workers.

In a competitive labor market, a worker's wages will be equal to the value of his or her marginal product. Roughly speaking, the pay a worker earns will be equal to the value to a firm of the additional output of that worker. Under these circumstances, the imposition of a binding minimum wage would mean that the legally mandated wage for the affected workers would be too high relative to the prices firms could get for their products. To avoid losing money, firms would cut output. The effect would be to reduce the demand for lower-wage workers and to decrease employment among those previously

earning wages below the newly established minimum wage.

If, on the other hand, an employer has market power in hiring workers, a worker's wage will be less than the value of his or her marginal product, and the level of employment will be below the competitive level. The imposition of a binding minimum wage would attract more workers and, as long as the minimum wage remains below the competitive rate, a profit maximizing employer will hire the additional workers. That is, the minimum wage would increase workers' wages and the level of employment.

## Empirical findings

Much of the empirical work on the minimum wage law bears directly on this question of how employment among those earning close to the minimum wage responds to changes in the statutory minimum rate. These studies suggest that the salaries of lower-wage earners generally are determined in competitive markets and that past changes in the statutory minimum have pushed the rate above competitive wage rates for at least a portion of lower-wage workers.

For example, a large number of studies have examined the effects of changes in the minimum wage rate on teenage employment. The general findings are that a 10 percent increase in the minimum wage results in a 1 to 3 percent decrease in teenage employment. Other studies find negative employment effects from hikes in the minimum wage in various industries with a proportionately high reliance on lower-wage workers. Thus, since labor markets seem to be competitive, the Congressional measures designed to raise the real minimum wage close to its historical highs are not likely to promote economic efficiency, and are likely to decrease employment among lower-wage workers.

## Unemployment

Although the adverse effects of the minimum wage rate on employment among lower-wage earners are clear, other factors can influence the unemployment rate. For example, by raising the relative cost of lower-skilled workers, the minimum wage may increase the demand for employment of higher-skilled workers. (This "substitution effect" sometimes is cited as the reason for labor union support of minimum wage laws.) The increase in employment among

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higher-skilled workers offsets some of the jobs lost due to the imposition of a minimum wage.

A more important factor is the possibility that workers laid off due to a higher minimum wage might choose to drop out of the labor force altogether. Their numbers are not included in the *measured* unemployment rate. Several empirical studies find that increases in the minimum wage have a significantly negative impact on labor force participation for lower-wage workers. This so-called "discouraged worker" effect means that the measured rise in unemployment will be smaller than the actual rise in unemployment associated with a rise in the minimum wage rate.

### Estimated unemployment

The most extensive and reliable evidence concerning the implications of the minimum wage rate on measured unemployment pertains to young workers. From the available empirical evidence, a conservative estimate of the effects of a 10 percent increase in the minimum wage on the measured teenage unemployment rate is an increase of  $\frac{1}{2}$  to 1 percentage point. For the periods covered by most of the empirical studies, young workers generally earned low wages that were at or close to the minimum wage rate. Accordingly, the evidence from the studies on teenage unemployment tells us roughly the impact on unemployment among workers most likely to be affected by changes in the minimum wage rate.

To evaluate the overall impact of the proposed legislation, one needs to combine these estimates of the measured unemployment effects with estimates of the share of the labor force earning wages encompassed by the bills. From the Department of Labor's *Current Population Survey*, it is estimated that workers directly affected by the bills constitute about 15 percent of the labor force. Those earning the \$3.35 per hour minimum wage would be the most likely to suffer unemployment since the pending legislation would put the new minimum 50 percent above their current wage rate over four years. On the other hand, those earning between \$4.65 and \$5.05 per hour would be affected much less, as the hike in the wage rate would average only 5 percent for this group.

Using the estimates of the shares of the labor force affected by each step increase in the House version of the minimum wage bill, and allowing for some offset from higher employment among higher-wage earners, the bill would raise the overall unemployment rate by an estimated  $\frac{1}{10}$  to  $\frac{3}{10}$  of a percentage point over a four-year period. This represents between 100,000 and 300,000 workers. As explained earlier, the effect on the total number of jobs lost would be even larger since many workers probably would drop out of the labor force altogether.

### Inflation effect

In addition to a reduction in aggregate employment, a rise in the binding minimum wage rate also would raise prices overall. The available evidence suggests that a 10 percent rise in the minimum wage rate would boost the level of prices by about  $\frac{1}{4}$  to  $\frac{1}{2}$  percent.

Such an increase in the *level* of prices means that while prices are adjusting, the *rate* of inflation also would increase. Empirical studies indicate that the adjustment period should be relatively short—around six quarters or less. This rapid adjustment is not surprising since changes in the legal minimum wage are known well in advance.

What would the pending legislation mean for inflation? The proposed increases in the nominal minimum wage average 10 percent compounded annually over four years. Consequently, the current minimum wage bills would add about  $\frac{1}{4}$  to  $\frac{1}{2}$  of a percentage point to the annual inflation rate over a period of four or five years.

### Conclusion

Legislation being considered by the Congress would increase the minimum wage rate by about 50 percent over four years. This substantial hike in the minimum wage would result in higher wages for some workers, but would raise the unemployment rate by between  $\frac{1}{10}$  and  $\frac{3}{10}$  of a percentage point, and drive many lower-wage workers out of the labor force altogether. The higher minimum wage also would boost the level of prices and add as much as  $\frac{1}{4}$  to  $\frac{1}{2}$  of a percentage point to the annual inflation rate for a period of four years or so.

**Frederick Furlong**  
**Marc Charney**

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