

# Social Security— Automatic Adjustments

MAY 2018

## KEY POINTS

- Since the 1980s, the *Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Fund* has consistently indicated a need for corrective legislation to avoid a shortfall in the amount needed to pay all promised benefits.
- Congress has been reluctant to pass any corrective legislation because it would require potentially unpopular payroll tax increases or benefit decreases.
- Even if action is taken, actual experience will diverge from the demographic and financial assumptions and a shortfall could again develop.
- Automatic adjustments are changes to benefits or contributions that become effective once a trigger indicates a need for an adjustment, and they periodically adjust the program without the need for legislation.



AMERICAN ACADEMY of ACTUARIES

*Objective. Independent. Effective.™*1850 M Street NW, Suite 300  
Washington, DC 20036202-223-8196 | [www.actuary.org](http://www.actuary.org)Craig Hanna, Director of Public Policy  
Ted Goldman, Senior Pension Fellow

© 2018 American Academy of Actuaries. All rights reserved.

## Introduction

The Social Security Amendments of 1983<sup>1</sup> were the last comprehensive changes made to the Social Security program. This statute raised the program's taxes and reduced certain benefits. The changes were intended to enable the program to finance scheduled benefits from payroll tax income and trust fund assets for at least 75 years, until 2058.

Under the terms of the 1983 amendments, Social Security's income from taxes exceeded benefit payments and administrative expenses, enabling the system to accumulate a large fund of special-issue Treasury bonds during the period from 1984 to 2009. It was understood at the time of the Amendments that the accumulation of assets would reverse and the assets would start to be used to pay benefits. Starting in 2010, some of the interest paid on these bonds has been needed to satisfy benefit payments, slowing the increase in the growth of the trust fund. A few years from now, not only the interest but also the principal from the trust fund will be needed to continue making all scheduled benefit payments. Unless the law is further changed, the payroll tax income, applicable income tax on benefits, and trust fund assets will not be enough to cover all scheduled benefit payments.

Long-range actuarial balance is described in the annual Social Security Trustees Report<sup>2</sup> as the projected surplus or shortfall as a percentage of the taxable payroll over a 75-year period. When the program has a negative actuarial balance as it now does, it will not be solvent over that period. Solvency as defined in the Trustees Report requires that the program can pay all scheduled benefits when due with scheduled financing. It should be noted that even when the program becomes insolvent, it still will be able to pay most benefits when due. Based on the 2017 Social Security Trustees Report, commencing in 2034, approximately 75 percent of the scheduled benefits still can be paid.

<sup>1</sup> Social Security Administration's Office of Legislation & Congressional Affairs; "[Legislative History](#)"; Nov. 26, 1984.

<sup>2</sup> Social Security Administration; [The 2017 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Fund](#); July 13, 2017.

Some policymakers have proposed various specific changes intended to restore Social Security to positive long-range actuarial balance. However, to date, Congress has not acted on such proposals since 1983. Even if such changes were enacted, actual experience inevitably will diverge from the demographic and economic assumptions on which the changes are based, and Social Security could again develop a negative actuarial balance. Policymakers can choose to address such imbalances by enacting specific changes that may need additional adjustments over time or by establishing an automatic mechanism that will periodically adjust the program.

Under an automatic adjustment approach, changes to keep the system in positive long-range actuarial balance would be made on a periodic basis. These changes could be in the form of an increase in revenue, an adjustment in the total projected benefits over the recipients' lifetimes, or some combination of the two. An automatic adjustment approach could address the system's financial challenges by implementing adjustments as needed. Automatic adjustment approaches that contribute to maintaining solvency are used by other industrialized nations<sup>3</sup> in their national pension systems. This issue brief examines automatic adjustment options, including their advantages and disadvantages.

## Background

The long-range financial status of the Social Security program (Old-Age, Survivors and Disability Insurance) historically has been expressed in terms of the actuarial balance as described in the annual reports of the Social Security Board of Trustees. The balance is computed under three sets of assumptions: an intermediate or "best estimate" assumption set, a low-cost assumption set, and a high-cost set.

The long-range actuarial balance under the intermediate assumptions traditionally has been the benchmark for determining Social Security's long-range financial status.<sup>4</sup> When major changes were made to bring the program into long-range actuarial balance, such changes have been based on the intermediate assumptions. This occurred most recently with the 1983 Social Security Amendments, when benefit decreases and tax increases were combined to move the long-range actuarial balance from a deficit of 1.82 percent of taxable payroll to a surplus of 0.02 percent. At that time, the program's revenues were projected to be sufficient to finance scheduled benefit payments through 2058, the end of the 75-year projection period.

## Social Security's Long-Range Financial Problems

The projected long-range actuarial balance for Social Security unfortunately has deteriorated since 1983 primarily due to: 1) actual experience since 1983 that was less favorable than expected; 2) changes in the assumptions from those used to calculate the 1983 actuarial balance; and 3) the inclusion of future years during which scheduled benefits exceed income in the moving 75-year valuation period. The trust fund now is projected to run out of money in 2034, well before the 1983 projection of 2058.<sup>5</sup> Under the current approach, when Social Security has financial problems, congressional action is needed to restore actuarial balance. Although all Trustees Reports since 1984 have shown the system to be out of long-range actuarial balance, Congress has not yet acted to address the situation.<sup>6</sup>

<sup>3</sup> Automatic adjustment in Social Security systems for Canada and Sweden are discussed later in this issue brief.

<sup>4</sup> During the 1980s, there were two intermediate assumption sets. The numbers cited in this paragraph describing the 1983 changes are based on set II-B, the less optimistic of the two intermediate assumption sets.

<sup>5</sup> All actuarial analyses in this issue brief are derived from the best estimate projection in the 2017 trustees report.

<sup>6</sup> Should lawmakers decide to bring the program into long-range actuarial balance before establishing an automatic adjustment mechanism, there are many possible approaches to achieving this goal. For example, an across-the-board reduction to current and future benefits of about 17 percent currently would be needed to bring the program into actuarial balance over the 75-year valuation period. Alternatively, an increase in the combined employer-employee tax rate of approximately 2.76 percentage points (which could be split evenly between employer and employee) would bring the program into actuarial balance over the 75-year period. It is likely some combination of these two approaches, along with some other changes, would be adopted, including a change to the normal retirement age (addressed in the following) or increases in the taxable wage base.

Members of the Social Security Committee include Janet Barr, MAAA, ASA—chairperson; Robert Alps, MAAA, ASA; Douglas Eckley, MAAA; Gordon Enderle, MAAA, FSA, EA; Ronald Gebhardtshauer, MAAA, FSA, EA; Jay Jaffe, MAAA, FSA; Amy Kemp, MAAA, ASA, EA; Jeffrey Leonard, MAAA, FSA, EA; Leslie Lohmann, MAAA, FSA, FCIA, EA, ECA; Jerry Mingione, MAAA, FSA, FCA, EA, CERA; John Nylander, MAAA, FSA; Jeffery M. Rykhus, MAAA, FSA; and Joan Weiss, MAAA, FSA, EA.

The Social Security Committee gratefully acknowledges the contributions of the following former members: Mark Shemtob, MAAA, FSA, EA, FCA; Brendan O'Farrell, MAAA, EA, FSPA, FCA; Timothy Leier, MAAA, FSA, EA; and Eric Klieber, MAAA, FSA.

Beyond changes to restore long-range actuarial balance, Congress also could adopt an automatic adjustment approach to maintain actuarial balance, thereby greatly lessening or eliminating the need to make further ad hoc changes. Under an automatic adjustment approach, actions to address changes in the actuarial balance would be taken at some specified interval or when triggered by a predetermined threshold of deviation from actuarial balance. That is, Congress could decide to let the automatic adjustment mechanism be the default option and override it only by future legislation. The current lack of long-range balance could be incorporated into a new automatic adjustment program, though treating them as separate initiatives would make it clearer how the program's finances are being treated in two parts: changes to correct past imbalances and changes to correct any future imbalances.

The actuarial analysis of the 1983 amendments did not look beyond the 75-year valuation period. As noted, one reason for the current long-range deficit is that all the years added to the valuation period beyond 2058 are deficit years. To address this problem, the Social Security Board of Trustees has developed since the 1983 amendments the concept of “sustainable solvency,” under which payroll taxes not only finance scheduled benefits over the 75-year valuation period but also leave the trust fund stable or increasing at the end of that period. Automatic adjustments, because they continue operating through all future valuation periods, help maintain sustainable solvency.

### **Options for Potential New Automatic Adjustment Features**

Social Security already has some automatic adjustment features, but these serve primarily to keep benefits in line with changes in wages and the cost of living. These are outlined in the Appendix to this paper. Any approach to automatically provide additional changes to the program would require a metric. One possibility is to use actuarial balance; however, other options could be considered that would ensure solvency since even if the program has a positive actuarial balance, it may not be possible to

pay all benefits when they are due over that period. This is possible because the positive actuarial balance may be due to projected future surpluses that have not yet materialized. Bringing about positive actuarial balance or solvency would require either adjusting revenue, adjusting benefits, or some combination of the two. Policymakers should be clear on which of these approaches will be taken or whether they wish to use a combination. For example, to the extent revenue is subject to automatic adjustment, policymakers could determine what, if any, percentage of additional revenue would come from an increase in the wage base.

The following automatic adjustment approaches, individually or in some combination, could help keep Social Security solvent.

### **Adjustments to Taxes**

Future automatic periodic adjustments to taxes could be generated in different forms:

#### ***Increase in the wage base:***

When Social Security taxes first were collected in 1937, the earnings base (wage base) was set at \$3,000, and about 92 percent of the earnings of covered workers fell under the earnings base and were subject to taxation. Despite several ad hoc increases to the earnings base, by the 1960s the proportion of earnings that fell under the earnings base had declined to approximately 80 percent. This is due to the fact that wages were increasing but ad hoc increases were not consistently adopted in a way that kept the percentage of covered earnings at 90% or above.

In the 1977 Social Security amendments, Congress enacted three successive ad hoc increases to the earnings base, effective in 1979, 1980, and 1981, which brought the proportion of earnings in covered employment that were taxable to about 90 percent. The 1977 amendments also adopted an automatic increase in the wage base so that it increased annually by the same percentage as the increases in National Average Wage. Since then, despite the automatic adjustments to the earnings base, the proportion of covered earnings which are taxable has fallen to

about 83 percent because higher-income workers have received proportionately greater wage increases than lower-income workers. Historically, the current method of adjusting the wage base has resulted in a diminishing percentage of earnings subject to taxation over time.

***Increase in the payroll tax rate:***

A change in the payroll tax rate would affect all wage earners and their employers. This approach would affect all workers, rather than just higher wage earners, as would be the case with an increase in the taxable wage base. However, an increased flat payroll tax rate could adversely affect the standard of living of lower wage earners, who may be less able to adjust to reduced disposable income than higher wage earners.

***Increases in taxability of Social Security benefits:***

Some, but not all, Social Security benefits are subject to income taxation. The taxability of benefits varies based upon total income level. Income taxes derived from Social Security benefit taxation are paid, in part, to the Social Security Trust Fund. Automatic changes increasing federal income tax on benefits is an approach that could increase revenue to the trust fund. Any changes in the taxation of Social Security benefits could be complicated since during 2017, Congress adopted income tax decreases. An increase in Social Security income taxes would effectively decrease benefits and impact mainly upper middle-class taxpayers. Any tax increases adopted in the near future could be viewed as a reversal of the 2017 tax decrease. Income taxes on Social Security benefits are not designed to be a major source of revenue and may not generate enough additional revenue to merit consideration in an automatic adjustment approach.

## **Adjustments to Benefit Amounts**

One potential approach to maintaining Social Security's actuarial balance is to automatically change the amount of benefits payable. By incorporating adjustments to the basic benefit formula, cost of living assumptions, or wage indexing factors, an automatic change mechanism could be applied to all retirees, future retirees only, or to a partial group of retirees and future retirees. Different adjustments to different groups also could be applied.

Most benefit adjustments ultimately would affect the standard of living of seniors, many of whom rely on Social Security as the source of all or most of their retirement income. For this reason, some policymakers may be reluctant to approve any reduction in benefit amounts. Automatic adjustment mechanisms could be devised, alternatively, to apply disproportionately or exclusively to higher-income beneficiaries. This approach, however, would require larger adjustments to maintain a positive actuarial balance than if everyone's benefits were adjusted and may add complexity to an already complex system. In addition, focusing benefit reductions on higher-income individuals could strengthen support for the changes among those most concerned about the social adequacy of Social Security, but it also could erode support for the system among those individuals who most likely would be affected.

## **Adjustments to the Normal Retirement Age**

Another approach to automatic adjustments is through the normal retirement age: the age at which nondisabled workers may retire and receive unreduced benefits. Changing the normal retirement age is another way to adjust benefit amounts but should be considered separately from other auto-adjustment provisions because changes to the normal retirement age respond specifically to changes in the financial condition of the program driven by changes in life expectancy.

From the beginning of Social Security in the 1930s until the early 2000s, the normal retirement age was 65. The 1983 amendments included a schedule of gradual increases in the normal retirement age to age 67, beginning with workers born in 1938 and ending with workers born in 1960 and later. Since 1940, average life expectancy at age 65 has increased by approximately seven years.<sup>7</sup> This increase in longevity can be viewed as an implicit increase in the benefits provided by the program, since longer-lived retirees receive more benefit payments than shorter-lived retirees. Increasing the retirement age can mitigate the effect of longer lifespans on the actuarial balance.

---

<sup>7</sup> Based on data derived from the 2017 trustees report.

One concern that needs to be considered is that lower-income individuals have not experienced the same increases in longevity as higher-income individuals. An across-the-board increase in the normal retirement age could be viewed as unfair to the mainly blue-collar individuals who have not experienced the same increases in life expectancy.

Another concern is that the labor force may not be able to accommodate more senior workers. Raising the normal retirement age could place some workers in financial difficulty if not enough suitable jobs are available to allow them to remain in the labor force. On the other hand, some economists have theorized that, with the baby boom generation reaching retirement, employers would begin providing incentives for them to work longer, since not enough new workers would be entering the labor force to replace those retiring if current retirement patterns persist.

Raising the normal retirement age could cause hardship for individuals with physically demanding jobs or who have become partially disabled. To be eligible for Social Security disability benefits, a worker currently must be unable to perform any substantial gainful activity. A possible solution to this problem would be to provide an alternative disability benefit for workers who are no longer able to perform the jobs they are qualified for once they reach a specified age. The current schedule of retirement age increases, for instance, could be frozen for workers who qualify for this alternative disability benefit. Another option is to roll back the age for an unreduced benefit to age 65 for the alternative disability benefit. This would ensure that a worker who qualifies only under the alternative eligibility of disability would be no worse off than a nondisabled worker before the 1983 amendments. Of course, these additional disability benefits would offset some of the cost savings from raising the normal retirement age. Adjusting the normal retirement age differs from the other adjustment mechanisms described previously in that it specifically addresses one of the reasons the cost of Social Security is increasing—rising longevity among program participants. This suggests that automatic

adjustments to the normal retirement age should be limited to neutralizing cost increases due to rising longevity but not other aspects of the program's actuarial experience. Since rising longevity is not the only reason for the system's long-range actuarial deficit, adjustments to the normal retirement age limited in this way may not be sufficient alone to maintain actuarial balance. These issues are discussed in greater detail in the Academy's issue brief *Raising the Retirement Age for Social Security*.<sup>8</sup>

## Trigger Mechanisms

Although the intermediate assumptions represent the trustees' best estimate of future economic and demographic conditions, many other future trends and conditions are of course possible. The trustees also publish valuation results using low-cost and high-cost assumptions to illustrate possible alternative outcomes. Automatic adjustments based on the intermediate assumptions would produce lower benefits and/or higher taxes than necessary to maintain actuarial balance if the actual costs are lower than expected and, conversely, higher benefits and/or lower taxes than necessary if the actual costs prove higher than expected. Given the great uncertainty regarding how the economy and society will evolve over the 75-year period, some will argue that basing automatic adjustments on actuarial balance as measured in the Trustees Reports is inappropriate. Others may argue that gradual adjustments would not be disruptive.

The trustees sometimes make changes to their assumptions in response to emerging economic and demographic trends that differ from past projections and in response to other developments that may affect future program costs, such as medical advances or changes in immigration law. This raises the possibility that a change in assumptions alone could trigger automatic adjustments. It is understandable that the public may have difficulty accepting a tax increase and/or benefit reduction triggered by a change in assumptions. The process for setting assumptions is discussed in the Academy's issue brief *Understanding the Assumptions Used to Evaluate Social Security's Financial Condition*.<sup>9</sup>

<sup>8</sup> American Academy of Actuaries; *Raising the Retirement Age for Social Security*; October 2010.

<sup>9</sup> American Academy of Actuaries; *Understanding the Assumptions Used to Evaluate Social Security's Financial Condition*; May 2012.



An increase in Social Security’s projected deficit due to unfavorable economic conditions may be alleviated in the short term by a normal cyclical return to more favorable conditions. If triggers for adjustments are made too sensitive to short-term fluctuations in the economy, benefit levels, taxes, and/or the normal retirement age could bounce up and down unpredictably. Conversely, if the lag time in implementing the adjustments is equal to the time that it takes for a fluctuation to reverse, the adjustments could come into force just when they no longer are needed.

These concerns could be addressed if automatic adjustments are based only on trends in the actuarial balance that emerge over longer periods of time, such as a ten-year period. The adjustments could be triggered, for example, by changes in the moving average of valuation results over a suitable period rather than on the results of individual valuations. If the adjustments are phased in gradually over time, most of the difficulties described previously would be mitigated.

A trigger mechanism also could be designed that does not rely exclusively on the projections of actuarial balance. For example, automatic adjustments could be triggered if the number of years’ worth of benefits payments covered by trust fund assets falls above or below specified levels. Defining an appropriate trigger mechanism for automatic adjustments is as important as defining the adjustments themselves.

Another structure for a trigger mechanism would be like a thermostat that maintained a temperature within an acceptable range. The desired “temperature” could be set, for example, based on a range around the 75-year Social Security actuarial balance on the intermediate cost assumptions used in the annual Trustees Report. Adjustments only would be triggered if the system’s balance fell out of this range, and once triggered the adjustments would target restoring the actuarial balance under the intermediate assumptions.

## Potential Issues with Automatic Adjustments

While automatic adjustments may be designed to address the issues we can anticipate today, the future is uncertain and the actual issues that will need to be addressed may be different than those anticipated, rendering the automatic adjustments inefficient or ineffective. For example, the automatic adjustments may turn out to favor one group of people over another in ways that were not anticipated. Change to public law would be required to correct such unforeseen consequences, and such intervention may be difficult to accomplish, especially if there are winners and losers.

Innovation in the design of systems often comes when the current system no longer is working efficiently. Automatic adjustments may keep the system operating at a moderately sufficient level such that the need for improvements doesn’t become critical and require action.

While legislation to intervene and change the system can come about at any time, default options are very powerful. With an automatic adjustment mechanism, the default action is to change the system either by increasing taxes, reducing benefits, or both, and legislation would need to be enacted to prevent that change. Some would prefer that the default action be no automatic change to the system to ensure congressional debate, majority support, and presidential signature.

## Automatic Adjustment Mechanisms in Other Nations

Many other industrialized nations have adopted automatic adjustment mechanisms designed to ensure the long-term viability of their national pension systems. These mechanisms range from simple solvency testing to complex multifactor approaches designed to spread the burden of any benefit reductions equitably over all segments of the population. As an example of the former, in Canada the scheduled tax rate increases automatically if the Canada Pension Plan chief actuary determines that the system is not sustainable over the long run at

the scheduled tax rate and government ministers cannot reach a consensus on other actions to sustain the system. In Sweden, on the other hand, there are automatic adjustments to the retirement age (based on changes in life expectancy), to benefits in pay status (based on measures of worker productivity), and to initial benefits (based on long-range solvency testing). Indexing benefits and/or retirement age to changes in life expectancy has become increasingly common among European countries. These adjustment mechanisms, however, have not yet been in place long enough to test whether they will work as intended over the long term.

## Conclusion

Automatic adjustments to benefits or taxes could solve Social Security's long-range financing problem permanently and automatically—and improve public confidence in the system. Without automatic adjustments, any legislation to restore the system to long-range financial stability might fall short of this goal if experience is less favorable than assumed or if assumptions are changed, both of which happened after the 1983 legislation. Proponents of automatic adjustment approaches point out that without such adjustments, Congress might allow Social Security's problems to grow until a crisis is reached, at which time the need for immediate, large-scale changes to the system would cause some beneficiaries unnecessary financial harm or eliminate what currently are viable approaches to bringing the system back into balance.

Some opponents of automatic adjustments claim they allow for tax or benefit changes without the consent of elected representatives. While it is true that future tax increases or benefit changes could occur without future elected representatives taking any action, those elected representatives would retain the authority to change the law at any time and could amend or prevent the adjustments if they chose to do so. The difference is which action is the default.

The main question to be answered in considering automatic approaches for maintaining Social Security's long-range actuarial balance or solvency is whether making small changes automatically and frequently or larger changes on an ad hoc basis is better. The last comprehensive change to the program was made in 1983.

The potential advantages of automatic approaches include:

- Frequent small changes make it easier for participants to adjust to changes and may make the changes more palatable;
- Knowing the system has built-in solvency features may make workers more confident the system will still be available when they retire;
- Automatic adjustments can help insulate Social Security from a contentious political process; and
- Automatic adjustments can allow for a more systematic distribution of changes among multiple generations.

The potential disadvantages of automatic approaches include:

- Adjustment mechanisms that are designed in advance may be inappropriate or even counterproductive in the context of future circumstances that cannot be anticipated; and
- An automatic process of adjustments could discourage debate and action on the part of future elected representatives, stifling innovation and growth in a program that is vital to the well-being of many millions of Americans.

Looking at it from another perspective, even if an automatic adjustment approach were adopted, the program still would require careful monitoring by policymakers to ensure that it continues to provide benefits at a level deemed appropriate and affordable by the American public.

## Appendix: Automatic Adjustment Features in the Current Program

These adjustments also contribute to keeping the program’s income and cost in balance. By themselves, however, they cannot maintain the system in actuarial balance because they do not address the demographic factors that contribute to the program’s increasing cost, primarily lower birth rates and higher life expectancies among participants compared to historical norms, nor do they address all economic factors.

### **Wage Adjustment:**

A worker’s covered wages for years prior to the worker’s attainment of age 60 are adjusted—or indexed—to reflect changes in the national average wage up to that year. A worker’s benefit at retirement is based on average indexed earnings in his or her highest-earning 35 years. This ensures that lower earnings early in a worker’s career do not pull down the average earnings merely because prevailing wages were lower.

### **Earnings Base Adjustment:**

The maximum amount of earnings subject to the Social Security payroll tax and used for calculating Social Security benefits also is automatically adjusted each year to keep pace with changes in the national average wage.

### **Benefit Formula (or Bend Point) Adjustment:**

The basic benefit formula is not determined based upon a fixed percentage of all historical Social Security covered wages. It is based upon a formula that applies greater value on lower wages using “bend points.” The Social Security benefit is computed by applying a factor of 90 percent to average indexed

earnings up to a specified dollar amount, 32 percent to average indexed earnings over that amount up to a second specified dollar amount, and 15 percent to average indexed earnings above the second dollar amount. The two specified dollar amounts are called the “bend points” in the benefit formula. The bend points are adjusted each year for changes in the national average wage, so that the wage brackets defined by the bend points expand in proportion to prevailing wages. The bend points are frozen for each worker in the year the worker attains age 62 (or becomes disabled or dies).

### **Cost-of-Living Adjustment:**

Beginning in the year a worker attains age 62, benefits are adjusted for changes in the cost of living as measured by the consumer price index (CPI-W<sup>10</sup>). This adjustment ensures that workers’ benefits keep pace with price inflation after age 61, whether the person has retired or postponed receiving benefits. These adjustments relate to the worker’s age rather than retirement status so that wage and benefit indexation does not influence the decision regarding when to retire.

---

<sup>10</sup> Consumer Price Index for Urban Wage Earners and Clerical Workers.

The American Academy of Actuaries is a 19,000-member professional association whose mission is to serve the public and the U.S. actuarial profession. For more than 50 years, the Academy has assisted public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.