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Social Security Benefits and the Effect of Declines in Average Wages and Prices

Recent news articles have highlighted how a decrease in national average wages may have a negative impact on the Social Security benefits of individuals reaching age 60 in 2020. Social Security benefits are tied to a worker's earnings record but are also affected by changes in national wages and prices. This InFocus explains elements of the benefit formula, discusses the possible effects of declining average wages and prices on benefits, and reviews policy options for Congress. Congressional interest may be high because of the large number of potential Social Security beneficiaries for whom these benefits would comprise a big share of their total income.

Average monthly Social Security benefits generally increase because of *wage-indexing* and *price-indexing*. Initial benefit amounts (i.e., retired worker benefit amounts that can be collected at the earliest eligibility age of 62) are indexed to the average wage index (AWI). Benefit amounts collected after the earliest eligibility age are indexed to the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) through an annual cost-of-living-adjustment (COLA). Although wages and prices generally increase over time, instances may arise where wages, prices, or both decrease. Under such conditions, as may result from Coronavirus Disease 2019 (COVID-19) circumstances, benefit amounts would be affected.

Social Security Benefit Formula

Workers become eligible for Social Security benefits by working in covered employment, generally requiring about 10 years of work, and are first eligible for Social Security retirement benefits at age 62. To determine benefits, the same process is used for all beneficiaries. Lifetime earnings are wage-indexed to account for growth in economy-wide earnings over a worker's career. Depending on the year of birth (i.e., birth cohort), two workers with identical earnings profiles may have different wage-indexed amounts.

The benefit formula process first determines a worker's Average Indexed Monthly Earnings (AIME). The AIME computation updates a worker's past earnings to account for growth in overall economy-wide earnings. This is done by indexing each year of a worker's taxable earnings by the growth in the AWI. Given lag time in computing the AWI, earnings up to age 60 are wage-indexed, whereas earnings from later years—at ages 60 and above—are not. For example, the Social Security average wage grew by 29.6% between 2000 and 2010 (from $32,155 to $41,674). As a result, a worker who turned 60 in 2010 and earned $20,000 in 2000 would have wage-indexed earnings of $25,921 ($20,000*1.296) for 2000. As such, growth in the AWI during the year in which a worker turns 60 is an important part of the benefit calculation. Once annual earnings before age 60 are indexed, the AIME is obtained by dividing the total of the highest 35 years of indexed earnings by 420 (i.e., total months in 35 years).

Next, the benefit formula process computes a worker's Primary Insurance Amount (PIA)—the basic monthly benefit for a retired worker who begins to receive benefits at the full retirement age (i.e., 67 for those born in 1960 and later). Using two bend points, which are also adjusted annually for average wage growth in the economy, a worker's AIME is sectioned into three brackets of earnings. A fixed PIA factor—90%, 32%, and 15%, respectively—is applied to each bracket of an AIME. The PIA factors are set in statute. The bend points are based on the year an individual is first eligible for Social Security benefits (i.e., age 62). However, given the lag time in computing the AWI, the value from two years prior is used to determine the bend points (i.e., when the worker was age 60). For example, in 2010, the bend points were $761 and $4,586. In 2011, due to a decrease in the AWI in 2009, the bend points decreased to $749 and $4,517. This is a second area in which the AWI value during the year in which a worker turns 60 plays an important role in determining a worker's benefit amount. Benefits paid after age 62 are increased annually by a COLA based on changes in the CPI-W.

Effects of Wage Indexing

To compute the AIME, earnings are indexed to growth in the AWI. Bend points used to compute the PIA are also indexed by growth in the AWI. Thus, from year-to-year, average benefits for *new* beneficiaries increase at approximately the same rate as average wages in the economy. This has generally resulted in stable replacement rates—the portion of a worker's career-averaged earnings that Social Security benefits replace.

Over its history, the AWI has increased in all but one year (2009), at an average annual rate of 4.5%. All else being equal, initial benefits generally increase over time. However, under the current-law benefit formula, a decrease in the AWI in the year a worker turns 60 would result in a lower AIME than if the wage growth were to increase or remain level. The same is true for the bend points used in the PIA calculation. That is, those turning age 60 during a year in which there was a decrease in the AWI would receive a lower PIA than if wages were to follow the generally positive trend. For example, consider a hypothetical median earner who earned at the median AWI level for each year of employment and turned 60 in 2013. Such a worker would have an AIME of $3,749.47 and a PIA of $1,658.60. Assuming an arbitrary decrease of 5% in the AWI for that year, the same worker would have an AIME of $3,576.00 and a PIA of $1,579.80. Before COLA

or other possible adjustments, this would be a benefit decrease of $945.60 per year.

If the AWI decreases in a given year and then resumes typical growth in later years, a young worker (i.e. under age 60) with earnings in that year would experience slightly higher future benefits than if the AWI had increased consistently or remained level. A worker's earnings from the year in which the AWI had decreased would yield relatively higher indexed earnings for that year, thus a higher AIME. Consider the earlier example of a worker who earned $20,000 in 2000. If the AWI had decreased by 5% in 2000 (from $32,155 to $30,547), the indexed value of those earnings in 2010 would grow 5.3%, from the earlier $25,921 to $27,285 ($20,000 x [$41,674/$30,547]).

Declining wages will not only affect old-age benefits for retired workers. All benefit calculations (e.g., for disabled workers or family members of a retired worker) that are indexed during a year of declining wage growth would be affected in a similar manner.

Increases in other Social Security program elements are tied to the increase in national average wages. These program elements include the amount of earnings needed for a Social Security quarter of coverage (i.e., an earnings credit); the monthly substantial gainful activity (SGA) threshold for nonblind Social Security disability beneficiaries; and the annual coverage thresholds for domestic workers and election workers.

Effects of Price Indexing

After a beneficiary's first year of eligibility, subsequent benefits are adjusted for price growth. The annual COLA is based on changes in the CPI-W, updated monthly by the Bureau of Labor Statistics. For Social Security, the COLA equals the change in the CPI-W from the third quarter of the prior year to the third quarter of the current year. The COLA announced in October becomes effective in December of the current year and is payable in January of the following year; Social Security payments always reflect the benefits due for the preceding month.

In most years, prices increase, resulting in a positive COLA being applied to the next year's benefits. However, if there is no percentage increase in the CPI-W, no COLA is payable, and Social Security benefits are not adjusted. No COLA was payable in January 2010, January 2011, or in January 2016. Section 215(i) of the Social Security Act protects Social Security benefits from being decreased during periods of negative price growth.

Several Social Security program elements are indexed to wages rather than prices but may increase only when a COLA is payable. These program elements include the contributions and benefits base (CBB, or the maximum earnings subject to payroll tax); the retirement earnings test exempt amounts; and the SGA threshold for blind Social Security beneficiaries. In years in which no COLA is payable, the value of these program elements is unchanged. For example, had a COLA been payable for Social Security benefits due in January 2016, the CBB would have increased from $118,500 in 2015 to $122,700 in 2016. Because no COLA was payable in January 2016, the CBB remained unchanged.

One additional relationship is notable with respect to the Social Security COLA. In years when there is no Social Security COLA or a very low COLA, for Social Security beneficiaries who have their Medicare Part B premiums withheld from their Social Security benefit, a hold-harmless provision in the Social Security Act ensures that their net benefits will not decrease as a result of an increase in the Medicare Part B premium. For example, nearly 70% of Medicare beneficiaries were protected by the hold-harmless provision in 2016 and 2017 when the Social Security COLAs were 0% and 0.3%, respectively.

"Notch Effect" and Birth Cohorts

Effects of wage indexing, price indexing, or both can result in what is commonly referred to as a *notch effect*. A notch occurs when one cohort of beneficiaries receives a different level of benefits (i.e., replacement rate) compared to an age-adjacent cohort (in the 1970s notches arose from changes in the benefit formula). The existence of a notch can lead one cohort to be perceived as receiving *inflated* benefits, while an age-adjacent cohort would be perceived as receiving *deflated* benefits. That is, because of birth year and indexing, a worker may receive a lower replacement rate of his or her earnings relative to a similar worker who is one year older or younger. Also, lower initial benefits would be compounded as it would result in a nominally lower COLA every year. Some expect the AWI to decrease in 2020 and argue those born in 1960 (i.e., turning 60 in 2020) will likely experience a notch effect as a result of COVID-19.

What Can Be Done?

Policymakers have several legislative options to choose from in addressing possible notch effects. One option is to do nothing, as was done in 2009. Alternatively, Congress could administer ad hoc benefit increases to birth cohorts that have been adversely affected by changes in wage or price growth, effectively "resetting" a cohort's lifetime benefit levels. In terms of wage indexing for those born in 1960, some have suggested using wage data only from the first quarter of 2020 (pre-COVID-19).

Policymakers could opt for a permanent solution that would prevent future notches from occurring. One solution that would address possible effects of negative wage growth would be to prevent the AWI from decreasing (i.e., the AWI in one year could not be determined to be less than the AWI in the preceding year). In the 116th Congress, such a proposal was introduced by Senators Tim Kaine and Bill Cassidy (S. 4180). A different approach could be to require the use of any prior year's AWI if it exceeds the current year's AWI in the calculation of a worker's AIME and for indexing the bend points used to calculate the PIA. Such a provision, among other things, was included in a bill introduced by Representative John Larson (H.R. 7499).

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