



# ISSUE BRIEF

AMERICAN ACADEMY of ACTUARIES

## Annuitization of Social Security Individual Accounts

*The debate over reform of the Social Security system has included several proposals to create individual accounts as part of Social Security. Most analyses of these proposals focus on the period before retirement, during the accumulation of account assets; however, individual account proposals also raise important questions about how account assets are distributed after retirement. Annuitization of individual accounts is one of several distribution options that should be carefully examined. This issue brief focuses on several issues related to annuitization, including:*

- *whether to require the use of annuities*
- *when to convert account balances to annuities*
- *what annuity benefit forms to use*
- *who could provide the annuities*
- *how to price the annuities fairly*
- *how to tax the annuity benefits*

Under the current Social Security system, benefits payable to retirees are guaranteed for life. In addition, all monthly Social Security benefits are automatically indexed for inflation. An individual account system could change the form that Social Security benefits take. Although some individual account proposals mandate annuitization of account balances upon retirement, others are silent on the subject or imply that annuities would be purchased in traditional markets on a retail basis.

### BASIC PRINCIPLES OF ANNUITIES

An annuity is a financial instrument that converts a lump sum of money into a stream of income payable for life. Annuities are generally issued and administered by life insurance companies.

The type of annuity discussed in this issue brief is an "immediate life annuity." When purchasing an immediate life annuity, an individual pays a lump sum of money to a financial institution and receives in exchange the promise of a certain amount of monthly income for life (or for the life of the individual and his or her spouse). People who buy annuities tend to be in very good health and want to ensure that they do not outlive their retirement income. Once purchased, an immediate life annuity contract is usually irrevocable and stays in force until the death of the last annuitant.

Annuity providers combine all the funds from everyone who purchases an annuity at a given time and invest these pooled funds generally in bonds or other fixed-income securities. Each payment that annuitants receive is derived from both income on the investments and from distribution of part of the principal. As time goes on, the number of annuitants declines, as does the amount of principal still invested on their behalf. In theory, annuity providers determine in advance exactly how much they can afford to pay out each month so that all the principal is depleted when the last annuitant dies. Nothing is left over in the pool of money to provide death benefits to surviving spouses or other heirs unless the extra cost of such features is included in the price of the annuities. In practice, actuaries for the insurer or other provider must estimate future longevity, investment returns, operating expenses and potential profit in determining the annuity rates they can offer in a competitive marketplace.

**Adverse selection.** In the private annuity market, adverse selection occurs when people in excellent health purchase annuities, while those with shorter life expectancies forgo annuities. As a result of adverse selection, annuity providers pay out less for every \$1,000 paid in than they would if the annuitant population were more representative of the general public. This in turn makes annuities even less attractive for those with shorter life expectancies.

Proposals that do not address the issue of annuitization overlook important options for the distribution of Social Security benefits. It is critical that all policy-makers exploring Social Security reform understand the issues involved in the use of annuities, regardless of their position on individual accounts.

## **I. SHOULD ANNUITIES BE MANDATORY OR VOLUNTARY?**

The design of any Social Security reform proposal involving individual accounts should address the issue of how account balances are drawn down in retirement. Some believe that upon retirement, workers should be permitted to determine how and when to spend their individual account balances. Others believe that workers should be required to use this money to provide income throughout the retirement years by annuitizing their account balances.

### **A. What Are Advantages of Making Annuities Voluntary?**

Following are some arguments for making the annuitization of individual account balances voluntary:

- ***Freedom of choice.*** Mandatory annuitization restricts choice. Some people wish to retain control of their account investments, expecting that they can achieve higher rates of return than can be obtained from an annuity. Others may want to use their accounts for bequest purposes or to retain some liquidity for expected or unexpected expenses, such as health-care costs. These issues particularly apply to individuals with large account balances, other sources of retirement income, or who expect to die prematurely due to serious illness.
- ***Equity issues.*** Making the use of annuities voluntary avoids an equity issue that may arise in a mandatory system. Under a system of mandatory annuitization without death or survivor benefits, workers with shorter life expectancies would not fare as well as those with longer life expectancies. Low-income individuals likely make up a disproportionate share of those with shorter life expectancies.

### **B. What Are Advantages of Making Annuities Mandatory?**

Mandatory annuitization might address several concerns that retirees face:

- ***Longevity risk.*** An annuity insures an individual against living so long that he or she would run out of money, eliminating the need to spend very conservatively in order to guard against this risk. A joint-and-survivor annuity can also provide longevity risk protection for a spouse in the event that the retiree predeceases the spouse.

If annuitization were voluntary, retirees who did not choose to annuitize might consume their individual account balances too rapidly and run out of money. That situation would result in a group of elderly people with sharply reduced retirement incomes, which in turn could place heavy burdens on governmental safety nets.<sup>1</sup>

- ***Investment risk.*** A fixed-income annuity protects individuals from investment risk by guaranteeing a steady rate of income, regardless of how investment markets perform in the future. In contrast, self-management of assets or the use of variable annuities involves significant risk and has the added challenge of requiring even the very elderly to manage their assets actively and to make assumptions about investment returns and/or life expectancy.
- ***Inflation risk.*** An annuity can include automatic cost-of-living adjustments, thus maintaining the purchasing power of retirement income over time.<sup>2</sup>

In addition to protecting individual retirees from these risks, mandatory annuitization may have systemic advantages as compared to a voluntary system. Making the use of annuities voluntary would reduce demand and tend to restrict their use to people in excellent health, thus driving up annuity costs. The effects of this adverse selection have been observed among annuitants for many years in the private sector. Voluntary annuities would

also be more expensive to administer, due to additional record-keeping and enrollment expenses, marketing costs, and reduced economies of scale.

Conversely, requiring the use of annuities would reduce average benefit costs and rates by covering a cross-section of workers (rather than just healthy ones) and by increasing the size of the market, thus lowering administrative costs.

### C. Possible Exceptions to Mandatory Annuitization

The design of any individual account system must consider whether to allow access to account assets before retirement. Workers with substantial or unexpected needs — health-care emergencies, unemployment, natural disasters, etc. — could seek to withdraw (or borrow) funds from their individual accounts for non-retirement purposes. The evolution of loan provisions in current 401(k) arrangements illustrates the issues involved. Initially, these funds were off-limits until retirement; if funds were withdrawn, a stiff tax penalty was imposed. Then, as workers clamored for access to meet important pre-retirement financial needs, the law was changed to permit loan provisions.

If retirement funds in individual accounts were not preserved for use in retirement, some retirees would be worse off under a privatization arrangement than under the existing program — even with higher rates of return in the private equity markets. It might prove politically impossible, however, to seal accounts off from workers who face financial needs before retirement.

Policy-makers would also have to decide whether to allow exceptions to mandatory annuitization requirements at the end of a worker's career, such as in the following situations:

- **Small account balances**, where the amount of monthly income and the expense of making monthly payments could make annuitization not economically viable. Annuities would be more economical to administer, however, if their payments were combined with the payments of other Social Security benefits.
- **Large account balances**, over a threshold dollar level or over the amount sufficient to purchase an annuity at a threshold dollar level (e.g., the poverty level or some multiple thereof). This situation might justify an exception to mandatory annuitization rules, because the entire amount of such large accounts might not have to be annuitized for the account holder to maintain a minimum standard of living. In addition, higher-income individuals (who would tend to have these large account balances) also have longer life expectancies, and limiting their use of annuities could make annuities less costly for other workers. Of course, providing flexibility to higher-income retirees that is not provided to lower-income retirees raises public policy questions that would need to be considered.
- **A short life expectancy at retirement**, documented by a reliable medical diagnosis that the individual has a terminal condition. Although waiving mandatory annuitization requirements is one way to address this situation, another, perhaps better way would be to incorporate death benefits (e.g., cash refund features) into the annuity to avoid any abrupt change in potential benefits to the worker and spouse when the annuity payments begin. This would also eliminate the need to review and approve diagnoses of terminal illness.

## II. WHEN SHOULD ACCOUNT BALANCES BE ANNUITIZED?

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Concerns have been expressed about the timing of the conversion of an individual account into an annuity, especially if annuities are mandated. The primary focus is on individuals who reach retirement at a low point in a stock market cycle, when the value of the investments in the account has been substantially reduced.

Rather than converting the entire account into an annuity at one time, the individual could spread the conversion over several years (e.g., 5 or 10 years). Some portion of the account could be converted each year. The individual would then receive retirement income from a combination of increasing annuity payments and decreasing payments directly from the yield on the remaining account. Many individual investors choose to spread purchases or sales out over time to reduce the impact of market fluctuations. Another approach to avoid the negative impact of stock market cycles is to gradually convert the equity portion of the account into long-term fixed-income securities over a period of years prior to annuitization.

Alternatively, some insurance companies offer variable annuities, which pay an income that fluctuates with the value of an underlying investment account that may include stocks. This approach does not eliminate any risk of market fluctuations on retirement income, but it avoids the negative long-term impact of converting the entire account at a low point in the cycle, while permitting the individual to benefit from a future recovery.

Converting the entire account into a fixed or inflation-indexed annuity at one time has several advantages. The individual has the certainty of knowing the initial amount of annuity income and does not have to worry about future events (e.g., unfavorable investment results) reducing this income. Additionally, this approach reduces administrative complexity and cost.

### **III. WHAT ANNUITY BENEFIT FEATURES ARE APPROPRIATE?**

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In addressing the issue of what form benefits could take under an individual account system, it is important to understand how Social Security benefits are currently structured. In a sense, the Social Security system can be said to provide mandatory joint-and-survivor annuities with a full cost-of-living adjustment (COLA).

Under an individual account system, using a standard annuity form in all cases would avoid confusion and extra costs of communication. That assumes, however, that policy-makers can design a form with broad public acceptance. Policy-makers interested in a standard individual account annuity form may want to consider the following features:

- ***A joint-and-survivor (J&S) annuity*** will pay benefits beyond the lifetime of the original annuitant to a named individual, usually the surviving spouse, for the remainder of that person's life. The spouse's benefit payments can be 100 percent or some lower percentage of the amount the primary annuitant was receiving before death. J&S annuities are widely used to guarantee income to surviving spouses, especially under private pension plans.<sup>3</sup> The extra cost (i.e., the reduction in initial benefit payments) of a J&S feature ranges from about 8 percent to 20 percent, depending on the percentage of the initial benefit payable to the surviving spouse, the ages of both individuals, and the factors used to calculate the basic annuity rate.

The current Social Security system has a feature that essentially increases the spouse's benefit from 50 percent to 100 percent of the worker's benefit after the worker dies. For example, if a worker's monthly benefit is \$1,000, a spouse the same age gets an additional monthly benefit of approximately \$500 while the worker is living, and a survivor's benefit of \$1,000 per month after the worker's death. This can be viewed as a 66⅔ percent J&S annuity, with the \$1,500 total benefit for the married couple reducing to \$1,000 at the first death, regardless of which member of the couple dies first.<sup>4</sup>

Under an individual account system, an automatic joint-and-survivor feature may be desirable for married workers, given the precedents under private pension plans and the current Social Security program. The amount payable to a surviving spouse could be set either at 66⅔ percent of the original benefit, based on current Social Security treatment of one-earner couples, or at 75 percent, based on research comparing the income needed by a single retiree to that needed by a retired couple.

A related question is whether a married worker's annuity benefit should be reduced if his or her spouse dies first. Reduction at the first death makes sense in terms of income needs, and reduces or even eliminates the effect of the J&S feature on monthly benefit amounts. However, such a feature is not typical of pension plans in the United States and might not be well-received by the public.

- ***Cost-of-living adjustments (COLAs)***. To guard against inflation risk, annuities could include a COLA feature, which increases the annuity income every year to reflect changes in the Consumer Price Index (CPI). Such a feature entails lower initial benefit payments that gradually rise and can eventually surpass fixed-income annuity payments. The expected value of all future payments is essentially the same, with or without a COLA. Demand for inflation-indexed private annuities is currently very low in the United States, perhaps due to the recent low levels of inflation, and only a very few annuity issuers offer such products.<sup>5</sup> Such insurers usually would invest in inflation-indexed bonds issued by the U.S. Treasury.

Despite the initially lower benefit payments, a COLA based on the full CPI may be a desirable feature for individual account annuities, especially because the current Social Security system provides annual COLAs based on the full CPI.

- A “*cash refund*” annuity guarantees to pay out at least as many dollars as were paid in. For example, if an individual pays \$1,000 for a level-payment cash refund annuity of \$6 per month, this feature effectively guarantees that payments will run for at least 167 months, until they add up to \$1,000. If the annuitant dies before 167 months have elapsed, the insurer pays a lump-sum death benefit equal to the unpaid installments. Thus, if a worker dies shortly before or after retirement age, the death benefit would be about the same.

Under an individual account system, a cash refund feature may be attractive as a way to help increase public acceptance for individual accounts and mandatory annuities, especially among workers with below-average life expectancy, such as some low-income individuals and certain minorities, as discussed below. On the other hand, providing lower death benefits, or no death benefits beyond the J&S feature for married workers, would raise the annuity benefit levels. That result might appeal to single workers and to workers with longer life expectancies, although many may still prefer to leave money to heirs in the event of death soon after retirement.

Annuities can be designed to provide cost-of-living adjustments in combination with the J&S and cash refund features described above.

In summary, adding any of these three features to the basic life annuity would alter the pattern of benefit payments, generally resulting in lower initial payments, but might meet important public policy goals. For example, including a COLA and a J&S feature could help to avoid objections to a program of individual accounts with mandatory annuities that might otherwise compare unfavorably to the current Social Security program with its full COLA and surviving spouse’s benefits.

Allowing beneficiaries to pick and choose among these features could create adverse-selection issues. For example, if annuitization were mandatory but the cash refund feature were optional, individuals who knew they had a shorter life expectancy (such as the terminally ill) would be more likely than healthy individuals to choose the cash refund feature. The resulting adverse selection would likely drive up annuity costs, thereby lowering benefits, for those choosing that option.

Numerical illustrations of specific individual account proposals should take care to specify which annuity features are included in the benefits that the individual accounts are expected to generate. For example, comparisons with income expected from the current Social Security program should state whether the annuities would provide J&S features and COLAs.

## **IV. HOW CAN THE ANNUITIES BE PRICED FAIRLY?**

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### **A. Current Pricing of Annuities**

In order to examine how individual account annuities could be priced, it is helpful to understand how private annuities are currently priced. In the current private annuity market, the amount of annuity income payable depends on long-term assumptions as to mortality, interest rates, and expenses, as well as the annuitant’s age and gender.<sup>6</sup>

Various annuity features (e.g., J&S, cash refund, COLA features) can also make a significant difference in the level of income initially payable.

The following are illustrative amounts of initial monthly income for annuities with various features purchased with \$100,000 in November 2001 under the federal employees' Thrift Savings Plan (TSP):<sup>7</sup>

	<u>Single Life</u>	<u>Joint and 100% Survivor</u>
<b>Beginning at age 65:</b>		
● Level Payments	\$785	\$662
● With COLA (CPI up to 3%)	592	480
● Level Payments with Cash Refund	715	656
<b>Beginning at age 55:</b>		
● Level Payments	644	571
● With COLA (CPI up to 3%)	444	373
● Level Payments with Cash Refund	619	565

As this table illustrates, providing extra annuity features can have a significant effect on the size of the initial benefit.

While these rates will change over time, they illustrate the relatively lower initial benefits associated with J&S, COLA, and cash refund features. It is important to note that the COLA under the TSP has a 3-percent cap on annual increases and that a full COLA would cost more. Also note that a 100-percent survivor benefit rate is quite generous and costly, and reducing this percentage to 75 percent or 66½ percent would lower the difference in initial benefit level for the J&S feature and might be appropriate.

## B. Pricing Individual Account Annuities

The cost of annuities can vary widely depending on a number of factors, including what features are included. In general, annuities would cost less in a mandatory environment than in today's marketplace for two reasons. First, instead of covering only people in excellent health, a mandatory program would cover everyone. Second, a mandatory annuity program could be designed to save substantial amounts in marketing and administrative costs.

Any individual account proposal that mandates the use of annuities should recognize the following issues regarding annuity rates:

- **Unisex rates.** On average, women live longer than men, so the cost of providing annuities for women is higher per dollar of monthly income. Public policy considerations, however, would probably require that Social Security annuities for men and women be priced at the same rates, especially if annuitization were mandatory. If annuitization were voluntary, the unisex price would tend to be too high for male account holders, who would decline to annuitize their accounts. The result under a voluntary system would likely be that a higher proportion of women than men would opt for annuitization. This would mean that the annuity price, unless subsidized, would be closer to the higher cost of providing annuities to women than to the lower cost of providing annuities to men, leading to even lower annuitization rates among men.
- **Small annuities.** In the private sector, annuity prices tend to reflect actual administrative costs, making small annuities prohibitively expensive or unavailable. For annuities under Social Security individual accounts, public policy would seem to favor charging expenses as a uniform percentage instead of in dollar amounts, thus subsidizing small annuities to some degree. As noted above, the cost of paying small annuities might be minimized by integrating their administration with that of basic Social Security benefits.
- **Low-income workers and minorities.** Annuitization is sometimes criticized for favoring high-income workers, who have greater expected longevity. Low-income workers tend to have lower life expectancies and thus might be better off not annuitizing.<sup>8</sup> It is probably impractical to have separate pricing of annu-

ities for low-paid workers, however, and a cash refund feature could help to address concerns about workers with shorter lifespans faring more poorly under an individual account system.

## V. WHO COULD PROVIDE THE ANNUITIES?

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There are at least three viable options for individual account annuity providers: a) the federal government itself, possibly using the Social Security Administration; b) the private market acting on its own; and c) the federal government working with private firms.<sup>9</sup> Each of these options has certain advantages and disadvantages.

A centralized annuity program operated or sponsored by the government, in which administrative tasks and some or all financial risks could be contracted out to private firms or consortiums, has the following advantages:

- **Economies of scale.** A centralized system takes advantage of the opportunity to capture the large savings available when millions of retirees get annuities under a huge program.
- **Accommodating unisex treatment of annuity rates and options.** Absent a government mandate, the forces of competition will produce separate rates for men and women; however, this would probably be unacceptable for Social Security from a public policy perspective.
- **Addressing concerns about possible loss due to insurer insolvency.** If the government retained the risk in an individual account system (as it does in the current Social Security system), insolvency would not be an issue. If the existing private annuity marketplace were used, policy-makers would probably seek a government guarantee to protect against insolvency, which could lead to intense auditing and regulation of annuity providers. Even if the government contracted out only the administration of individual account annuities to insurers, this would likely result in heavier regulation of private providers of annuities.
- **Facilitating inflation-indexed annuities.** The government could issue indexed bonds as needed for investment of annuity funds. Alternatively, the government could simply provide COLAs directly or fund their cost.

The government could participate directly in the market by becoming an annuity issuer. Direct participation by the government would raise some of the same concerns about the level of investment returns and the potential for political influence that have arisen in the broader debate about Social Security reform.

Alternatively, the private sector might create efficient new channels for selling and administering these annuities. Legislation mandating or encouraging annuitization of Social Security individual accounts could jumpstart this process. Such legislation could address the perceived problems of providing annuities through the private sector by mandating that annuity forms and rates conform to public policy goals, providing government guarantees on annuities issued by companies meeting set standards and authorizing the issuance of inflation-indexed bonds to meet private-sector demand.

Integrating the payment of these annuities and basic Social Security benefits could yield further advantages and cost savings. For example, combining both kinds of payments could make it practical to pay small annuities that supplement basic Social Security benefits.

## VI. HOW SHOULD THE ANNUITIES BE TAXED?

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Another important design issue is how annuities (whether mandatory or voluntary) under an individual account system would be taxed. In answering this question, policy-makers may wish to examine current law with respect to the taxation of Social Security benefits as well as the taxation of annuities.

### A. How Are Social Security Benefits Currently Taxed?

Before 1984, Social Security benefits were entirely tax-free, even though for the typical participant only a small portion of the benefit amount represented recovery of payroll-tax contributions. Beginning in 1984, up to 50 percent of the benefits were subject to taxation for certain higher-income beneficiaries, to recognize that 50 per-

cent of the funding for Social Security comes from the employers' payroll-tax contributions, which are deductible for employers and not taxable to employees. In 1994, the maximum portion of the benefit subject to taxation was increased to 85 percent. The 85 percent was derived from an estimate indicating that, even for a high-income beneficiary, only 15 percent of the benefit represents a return of employee payroll taxes. For lower-paid workers, the comparable percentage would be less than 15 percent.

### **B. How Are Private Annuities Taxed?**

Under current law, private annuities are purchased with after-tax income, but interest earnings accumulate on a tax-deferred basis. Because annuities are purchased with after-tax income, to avoid double taxation only a certain fixed amount of each annuity payment is taxed (as ordinary income). The taxable portion represents any value greater than, or interest earnings on, the "principal" (the amount paid for the annuity).

Generally, the fixed tax-free amount of each annuity payment is equal to the purchase price of the annuity divided by the annuitant's life expectancy when payments begin.<sup>10</sup> If the annuitant lives long enough to receive the total basis amount (i.e., his or her total investment in the annuity contract) tax-free, then the entire annuity payment is taxable thereafter. On the other hand, if the annuitant dies before the entire basis amount is recovered tax-free, the remainder can be used to offset other taxable income in the year of death.

### **C. How Are Retirement Plan Payments Taxed?**

Under current law, payments from employer-sponsored retirement plans are usually fully taxable at ordinary income rates. This is because contributions to such plans are generally made on a pre-tax basis and are taxed only upon distribution. If a portion has been funded by mandatory after-tax employee contributions, the aggregate employee contributions are treated as the annuitant's investment in the contract (i.e., basis) and received tax-free as described above.

A variation on this approach is to determine the portion received tax-free as a fixed percentage of the future annuity payments rather than as a fixed dollar amount. This approach would result in a more logical tax treatment for indexed annuities or other annuities for which the benefit amounts change over time.

The taxation of individual account annuities could be based on any of these models. If annuitization were voluntary, policy-makers might wish to consider incentives to annuitize, including taxing annuity income at a lower rate.

## **Conclusion**

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Annuitization issues are complex and often highly technical but must be addressed when considering the design of a social insurance system with individual accounts. Policy-makers should consider all the issues surrounding the use of annuities, including annuity features, pricing and taxation, and how these issues may differ under mandatory versus voluntary annuitization.

## Endnotes

<sup>1</sup> Under current law, a lifetime Social Security annuity is available to most retirees and is the sole source of income for many. The current Social Security program, however, provides benefits that are generally well below the level of pre-retirement earnings. If the government-provided benefit were reduced as a result of the implementation of an individual account system (i.e., a “carve-out” plan), even more of the longevity risk would be shifted to the participants.

<sup>2</sup> Current Social Security benefits include a COLA based on the full CPI.

<sup>3</sup> By law, a J&S annuity paying at least 50 percent to the spouse is the standard payment form for private pension plans in the U.S., unless the participant elects to waive this requirement and the spouse consents.

<sup>4</sup> This simplified explanation disregards benefit adjustments that are made if both spouses are not the same age or if the spouse had earned a Social Security benefit in his or her own right as a worker.

<sup>5</sup> This is in sharp contrast to the experience in the United Kingdom, where a large and active market for these annuities has existed for several decades; the United Kingdom also has a longer history of inflation-indexed government bonds than does the United States.

<sup>6</sup> This is true unless the annuity is paid under an employer’s pension plan, in which case federal standards for equal pay require unisex rates.

<sup>7</sup> These are unisex rates for an immediate annuity purchased with a \$100,000 account balance, with both spouses the same age. These rates tend to be favorable because they are set under a competitive contract negotiated by the TSP with a leading insurance company and reflect low costs for marketing and administration.

<sup>8</sup> This same disparity between high-income and low-income workers exists under the current Social Security program, which pays all retirement benefits in the form of life annuities. Such “fairness” arguments, however, should also take into account Social Security’s disability and survivor benefits, the progressive benefit formula and other program features that make the current program more attractive for low-paid workers.

<sup>9</sup> For example, the federal government contracts out to the private sector much of the responsibility for administering Medicare, as well as federal employees’ group life insurance, health insurance, and annuities under the TSP.

<sup>10</sup> The IRS requires that specific mortality tables be used to determine the life expectancy of annuitants.

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