

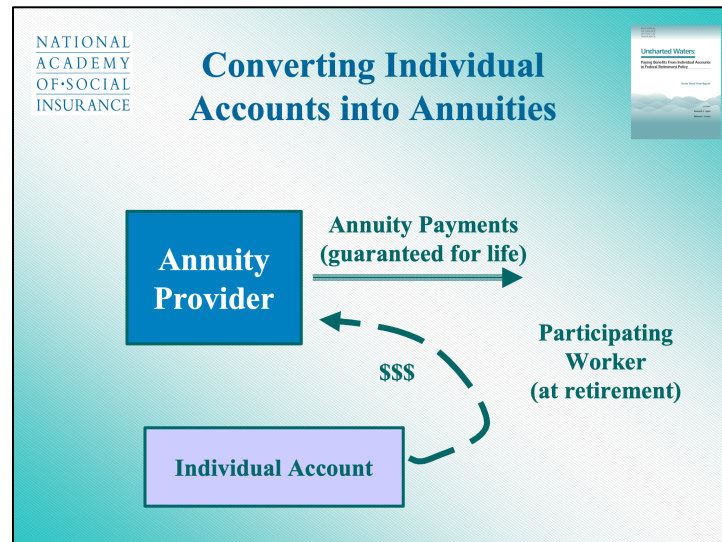
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Institutional Arrangements for Providing Life Annuities

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Life annuities are contractual obligations to pay the annuitant for the rest of his or her life. Only life insurance companies sell life annuities. A different product, *deferred annuities*, are tax-favored investment products that do not guarantee payment for life. Deferred annuities are used mainly as investment products to defer taxes on fund accumulations. The account holder has the option to later use the funds in the deferred annuity to buy a life annuity, but relatively few people do that. Only life annuities protect the annuitant against the risk of not knowing how long he or she will live. The Panel's discussion focused on arrangements for providing life annuities.

Scholars offer possible reasons for limited consumer demand for life annuities. (1)

Retirees who have money to annuitize may already have enough as monthly income.

Retirees with large financial assets often have good pensions and above average Social Security benefits. (2) The annuity tradeoff may not be appealing. The premium looms

large in relation to the future monthly income. (3) People may want to keep their options open. The purchase of a life annuity can not be undone. (4) “Wealth illusion,” is the tendency to more highly value a lump sum than a future income stream of equal value. (5) Myopia or short-sightedness.

On the supply side, financial advisors may see two drawbacks of life annuities compared to deferred annuities. Life annuities generally pay smaller commissions (4% versus 6%). Unlike deferred annuities, life annuities end the chance for future transactions and commissions because the money is turned over to an insurance company.

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Life Annuity Market Is Currently Small

- ❖ Life annuities are different from deferred annuities.
- ❖ Life annuities are 5% of the annual sales of life insurance companies. Other products (life insurance, deferred annuity investment products) are 95%. Why so small a share?
 - ❖ Weak consumer demand?
 - ❖ Weak incentives to sell life annuities?
- ❖ Individual accounts could dramatically increase market for life annuities



Life annuities are a small share of the total business of insurance companies. Of life insurance companies' \$300 billion in new product sales annually, life annuities are about 5 percent, or \$15 billion. Direct sale of life annuities is less than 2% while conversion of deferred annuities to life annuities is about 3% (LIMRA International, 2004). Other products, including life insurance and deferred annuities, constitute 95 percent of the volume of insurance company business.

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Regulating Life Annuities



- ❖ States regulate insurance companies.
- ❖ States regulate consumer protection, pricing and financial backing of annuities, and guaranty payments in case of insurance company failure.
- ❖ The federal government regulates banking, securities, and pension industries.

Insurance regulation in the United States has been the purview of the states since enactment of the McCarran-Ferguson Act in 1945. While the federal government regulates the banking, securities, and defined-benefit pension industries, states regulate insurance companies. Such regulations cover the pricing of annuities, financial backing of annuities, provisions for guaranteeing payments in the case of insurance company failure, and other issues.

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Pricing and Marketing Annuities

- ❖ Insurance companies currently have wide latitude to set prices for life annuities.
- ❖ For individual accounts, should insurers charge more to groups with longer life expectancy or use uniform pricing for everyone of the same age?
 - ❖ Women v. men; healthy v. unhealthy, etc.
- ❖ Pricing differentials reduce payments to people expected to live longer and increase them for those with shorter expected lives. Uniform pricing can cause “adverse selection” and selective marketing.



Should insurers be allowed to charge more to groups with higher life expectancy – such as women (or Hispanics)? This is a key policy question.

In the individual life annuity market, insurers charge women more, and men less, because women live longer than men, on average. Yet, in the group annuity market, federal policy bans differential pricing between men and women in annuities tied to employee benefits.

In a voluntary annuity market, if an insurer prices its annuities based on average risks, people with longer life expectancy would be more likely to buy the annuities while people with short life expectancies would not. This “adverse selection” would drive up the cost to the insurer and lead the company to raise its prices. The higher prices would further discourage short-lived people from buying annuities.

If policymakers want uniform pricing of annuities for everyone of the same age (regardless of sex, health status, or other risk factors), the simplest way to avoid adverse selection is to remove choice and require everyone to buy annuities. Uniform pricing in a voluntary market with differential risks can lead to selective marketing, whereby annuity sellers focus their sales efforts on people with shorter life expectancy. It is difficult for regulators to stop selective marketing without direct governmental oversight of marketing activities.

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Insurance Company Solvency

- ❖ State regulators aim to avoid insolvency by regulating insurers' finances:
 - ❖ Limit riskier investments, e.g., stocks
 - ❖ Set reserve requirements and minimum capital requirements.
- ❖ State Guaranty Funds aim to ensure payment in case of insurance company failure. Financed by insurance companies in the state.
- ❖ Uncertainty as to the capacity of current system to handle one or more large failures.



Regulations on the financial backing of annuities include: (a) limits on risky investments, such as stocks, (b) setting standards for reserves – the funds the company is required to hold. The reserves are the company's legal liabilities and are calculated according to formulas set by states.

State Guaranty Funds are set up in each state to ensure payment of annuities and other life insurance products in case of insurance company failure.

Unlike federal insurance programs, such as the Federal Deposit Insurance Corporation for banks, state guaranty funds for insurance companies are not pre-funded. Instead, states tax other insurance companies doing business in the state to cover the cost of an insurance company failure after it occurs. The largest such failure involved Executive

Life Insurance Company in the early 1990s. State guaranty associations have paid about \$2.5 billion for that insolvency as of 2004.

Existing arrangements for guaranteeing life annuities might suffice for a new system of individual accounts if the accounts are viewed as supplemental savings and retirees are given wide discretion on how they take the funds at retirement. But new institutional arrangements are likely to be needed if policymakers want to require or strongly encourage retirees to buy life annuities.

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Who Will Inform Consumers?



- ❖ If retirees have choices, consumer education will be important. For example,
 - ❖ Whether and when to annuitize?
 - ❖ What kind of annuity to buy?
 - ❖ How to compare prices of annuities?
- ❖ SSA has very little experience because Social Security offers almost no choice.
- ❖ In TSP, employers educate retirees.
- ❖ Private employers have mixed capacity.
- ❖ State laws do not currently address these issues.

Policymakers designing payout rules will confront an inevitable tension between offering choice and guaranteeing adequate retirement income for life. Hard-and-fast rules, mandates, or defaults might ensure that the system meets certain high-priority goals, but they might also create pressure for exceptions. The list of possible choices include:

- (a) Whether to buy an annuity at all;
- (b) How much of one's account to spend on an annuity;
- (c) Whether the annuity would be indexed for inflation;
- (d) When to buy an annuity;
- (e) Whether to buy a guarantee feature;
- (f) If a guarantee is desired, whether it is period-certain (and for how long) or a refund of premium, and whether it would go to a named beneficiary or to the estate;
- (g) If joint-life annuities were optional for unmarried individuals, whether to buy one and with whom;
- (h) If joint-life annuities were offered or required for married individuals, whether to buy symmetric or contingent products;
- (i) If joint-life annuities were offered or required, what size survivor protection to

provide; (i) Whether to buy a guarantee in addition to a joint-life annuity; (j) Whether to coordinate claiming Social Security with the purchase of an annuity.

Who would educate retirees about their choices could become a pivotal issue. The SSA has little experience, because retirees' only choice is whether and when to take the benefits they are entitled to. While large employers with extensive benefits might have capacity to educate retirees, most private employers don't have this capacity.

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		Federal	State	Private
Risk Bearing				
Mortality				X
Investment				X
Inflation	n.a.	n.a.	n.a.	n.a.
Management				
Annuity design and pricing				X
Administration				X
Investment management				X
Consumer Education and Marketing				X
Regulatory Oversight				
Solvency Regulation			X	
Solvency Guaranty			X	

Three kinds of functions are involved in providing life annuities – risk bearing, management, and regulation. In theory, these functions could be provided by three kinds of entities -- private insurers, state governments, or the federal government. This figure illustrates how they are carried out in the existing life annuity market.

Private insurers bear mortality risk and investment risk when they offer life annuities.

Annuities that are indexed for inflation are not generally not available. [Some annuities are designed to rise by a specified percentage each year, others vary with investment returns. But VERY few annuities are adjusted to keep pace with inflation.] Insurers also design, price, and administer life annuities and managed the invested funds that back the annuities. All regulatory oversight and solvency guarantees rest with state governments.

These arrangements might be acceptable to policymakers if new individual accounts were voluntary supplemental savings plans in which retirees had broad choices about whether

to buy annuities and had many other options for retirement withdrawals. Experience suggests that few would buy annuities.

But current arrangements present some drawbacks if annuities are required or are designed to replace part of Social Security. Potential drawbacks are: the absence of inflation-indexed annuities; different prices for men and women, and other market segmentation; possible shortcomings of the state guaranty system if insurance companies should fail; and potentially inadequate consumer education.

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Inflation-Indexed Annuities



- ❖ In the U.S., inflation-indexed annuities are not generally available on the private market
- ❖ To develop a large market for inflation-indexed annuities is likely to involve the U.S. government in some way.
- ❖ Treasury Inflation Protected Securities (TIPS)
- ❖ Reinsure private insurers
- ❖ Issue inflation-indexed annuities to retirees

A large market for inflation-indexed annuities does not yet exist in the U.S. and creating one is likely to involve the federal government – perhaps in one of three ways. The government might issue a large volume of long-dated Treasury Inflation Protected Securities (TIPS) to help insurance companies hedge inflation risk, it might reinsure private insurers or guarantee their solvency, or it might issue inflation-indexed annuities directly to retirees.

TIPS are a special class of Treasury securities. Like other securities, TIPS make interest payments every 6 months and pay back the principal when the security matures. TIPS are unique, however, in that the interest and redemption payments are tied to inflation.

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TIPS and Inflation-Indexed Annuities

- ❖ Some thought that TIPS issued in 1997 would launch a market in inflation-indexed annuities. Why did that not happen? Possible reasons:
- ❖ Weak consumer demand?
- ❖ Possible insurer concerns: (a) not enough 30-year TIPS; (b) inflation-indexing can increase exposure to mortality risk; (c) reserve and capital requirements may impede underwriting of inflation-indexed annuities.



The Treasury Department first issued TIPS in 1997. Some people thought that this would launch a large market in inflation-indexed annuities. But that did not happen. Why not?

Several conditions might explain the failure of a market to develop. .

First, consumers may not see the value of inflation-indexed annuities. Retirees simply may not understand inflation risk.

TIPS may not exist in sufficient volume, duration, and predictability to entice insurers to offer inflation-indexed annuities. Treasury stopped issuing all 30-year bonds, including TIPS, in 2001. Insurers might believe that only 30-year TIPS are long enough to cover the life spans of new retirees. 30-year TIPS are about \$40 billion, or about 1% of all Treasury securities.

Third, insurers and their regulators might be concerned that inflation indexing would increase insurers' exposure to mortality risk. Even if inflation risk is hedged by Treasury

securities, insurers who underestimate their annuitants' life spans will be exposed to much greater losses if the annuities they promise keep pace with the cost of living. Finally, uncertainty remains about how state regulators would set reserve requirements for inflation-indexed annuities.

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Volume of assets backing inflation-indexed annuities

- ❖ Asset volume would depend on contributions to accounts, investment returns, and participation.
- ❖ Assets backing universal annuities funded with 2% of workers' earnings could amount to about 15% of GDP when the system is fully mature.



The volume of reserves required to back widespread inflation-indexed annuities would be substantial.

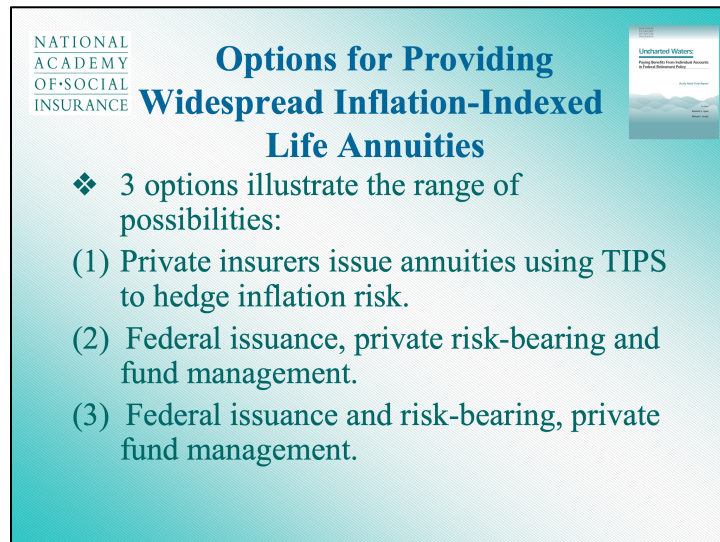
Reserves backing universal annuities funded with 2 percent of workers' earnings could amount to about 15 percent of GDP when the system is fully mature. Total, current federal debt instruments are roughly one-third of GDP. So if TIPS substituted for other federal debt instruments and total federal debt remained one-third of GDP, TIPS would be roughly half of all treasury securities.

Assumptions underlying this estimate are: participation in the accounts and purchase of annuities would be universal; during the accumulation phase, accounts would earn a net real return of 4.6 percent; annuity reserves would earn a 3.0 percent net annual return.

Those annuity reserves would be equivalent to roughly 7 percent to 8 percent of the value of total U.S. financial assets.

Today, total financial asset values are roughly twice the size of GDP, according to estimates of the Office of the Chief Actuary of the Social Security Administration.

Assuming that relationship remained unchanged, annuity reserves would be about 7-8 percent of total financial asset values.



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Options for Providing Widespread Inflation-Indexed Life Annuities

- ❖ 3 options illustrate the range of possibilities:
 - (1) Private insurers issue annuities using TIPS to hedge inflation risk.
 - (2) Federal issuance, private risk-bearing and fund management.
 - (3) Federal issuance and risk-bearing, private fund management.

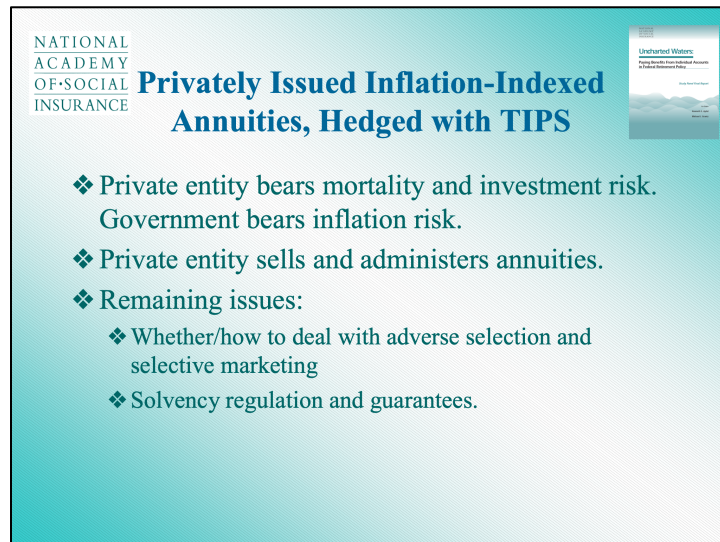
Good afternoon. There are many ways to mix and match the roles of public and private entities in order to handle the range of functions necessary to provide inflation-indexed life annuities to large numbers of participants. We use three specific models to illustrate the range of possibilities.

One option is to have the private sector take on the main functions, with the government confined to issuing inflation-indexed securities and regulating the private entities. In this model, private insurers would issue inflation-indexed life annuities and they would bear the mortality and investment risk. The federal government would help the companies hedge inflation risk by issuing a sufficient volume of long-duration TIPS.

Alternatively, the federal government could issue the annuities directly to participants, but pass the bulk of the economic risks on to private financial institutions. Participants would deal directly with the government, but the government would buy wholesale protection from the private sector.

Finally, the federal government could take on all significant roles except the actual investment management. The government would issue the annuities and bear all risks. It would contract out the investment management, but retain the upside and downside.

We examine each model in the following slides.



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Privately Issued Inflation-Indexed Annuities, Hedged with TIPS

- ❖ Private entity bears mortality and investment risk. Government bears inflation risk.
- ❖ Private entity sells and administers annuities.
- ❖ Remaining issues:
 - ❖ Whether/how to deal with adverse selection and selective marketing
 - ❖ Solvency regulation and guarantees.

In the first approach, private insurers would market the annuities and bear the mortality and investment risks. The government would issue TIPS in sufficient volume and duration to back the inflation-indexed life annuities. These government securities might be supplemented by new products developed by the capital markets, as has occurred to a modest extent in the UK, which has a longer history of inflation-indexed securities.

In this model, private annuity providers would sell annuities directly to participants. The entities would also handle the many administrative tasks, such as: making timely payments, adjusting payments for the cost of living, keeping track of annuitants' change of address or direct deposit instructions, reporting to the IRS, documenting annuitant deaths, and paying survivor benefits.

Remaining issues include:

How to deal with adverse selection and selective marketing. High levels of adverse selection could force high prices and shrink the number of participants choosing to take annuities. On the flip side, selective marketing could raise profits at the expense of fairness.

Solvency guarantees. If the federal government required or strongly encouraged the purchase of annuities, buyers might expect it to guarantee those annuities in case of insurance company failure. If the federal government were the guarantor, then policymakers might want it to also have a role in solvency regulation – setting reserve requirements, investment restrictions and so forth.

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**Federally Issued Annuities, Private
Risk Bearing and Fund Management**



- ❖ A central administrative authority (CAA) – government or semi-private – to deal directly with annuitants
- ❖ Private entities bear mortality and investment risk in bulk. Government bears investment risk through TIPS.
- ❖ CAA set up pools of annuity buyers
- ❖ CAA deal directly with individuals

In this approach a new central administrative authority might be set up – either as part of the government or a new semi-private entity -- to deal directly with annuitants. This Authority would sell annuities to individual retirees and collect their premiums. It would then package together large pools of annuities and contract with private insurers and other financial institutions. The private entities would charge the government an up-front premium, in exchange for making monthly payments back to the government to cover the promised payments to annuitants in each pool for as long as they lived. The Authority's pricing of annuities to participants would be heavily influenced by the bulk pricing available from private institutions.

The federal government would make the actual payments to annuitants and be the record keeper. As in the first model, the government would issue TIPS in sufficient volume and duration to back the insurers' inflation risk.

This approach could eliminate selective marketing issues, since the federal government itself would be the only entity marketing the annuities. Adverse selection issues could be somewhat mitigated by the methods chosen to construct pools of annuities from individual participants.

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**Federal Annuity Provider: Private
Investment Management**



- ❖ Federal government – or central administrative authority – bears mortality, investment and inflation risk.
- ❖ Deals directly with annuitants, guarantees payments
- ❖ Issues:
 - ❖ What investment policy for annuity assets?
 - ❖ How are assets counted in the unified budget?

If the goal is to produce widespread life annuities at retirement that resemble aspects of Social Security, then the federal government might decide to provide those annuities directly. The federal government already has experience paying Social Security benefits. If the federal government were to be the guarantor of individual account annuities, then policymakers might choose to have the government bear the risks, rather than have it regulate and ultimately guarantee the solvency of private insurers.

Remaining issues involve the investment management function. Unlike Social Security, genuine life annuities would be wholly prefunded, placing investment management responsibilities on the federal government, unless it contracted out this function.

The assets backing universal annuities that are funded with 2 percent of workers' earnings could amount to 15 percent of GDP when the system is fully mature. This large volume of funds poses two questions:

(1) What investment policy would apply to the funds and who would be responsible for the investments? Should annuity reserves be invested like the Social Security trust funds, that is, solely in special-issue Treasury securities? Or should the premiums be invested in a more diversified portfolio? Diversification into corporate bonds and stocks would produce higher expected returns, but might worry the business community about federal involvement in corporate decisions. This function might be contracted out to private fund manager similar to the private fund management of TSP funds.

(2) How would the funds be viewed in terms of the unified federal budget? Budget scoring rules can affect how policymakers view various types of federal funds when they make taxing and spending decisions. If annuity premiums are viewed as government receipts, policymakers might be tempted to spend them for current outlays.



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Budget Scoring Rules

- ❖ Different precedents in budget scoring rules exist for how to classify receipts from annuity premiums?
 - ❖ Treasury securities
 - ❖ Federal loan programs
 - ❖ Entitlement programs
 - ❖ TSP contributions
 - ❖ Federal insurance programs
 - ❖ Federal investment in corporate bonds or stocks

Budget scoring rules can affect how policymakers view various types of federal funds when they make taxing and spending decisions. For example, if annuity premiums are viewed as government receipts, policymakers might be tempted to spend them for current outlays.

There are several precedents for how to how to score annuity premiums. The report summarized each and we will not review them here, in the interests of time.

To wrap up, institutional arrangements for providing widespread or universal annuities to retirees pose a number of important policy questions. This Panel's contribution is not to provide the answers, but to help clarify the questions.

Thank you.

[Notes in case of questions on budget scoring precedents.]

Treasury securities. When Treasury issues securities, no budget transaction occurs. It is simply an exchange of assets. The government receives cash and issues securities of equal value. There is no budget outlay and no receipt.

Federal loan programs. Under the Credit Reform Act of 1990, federal loan programs are scored similar to Treasury securities. Loans are an exchange of assets, but the assets are not of equal value if the loan program subsidizes certain groups. Only the present value of the subsidy is counted as a budget outlay in the year the loan is approved.

Entitlements programs. Under the unified budget, Social Security revenues are counted as receipts and benefit payments are counted as outlays. Reserves held by the trust funds are viewed as government money.

Federal insurance programs. Federal insurance activities are generally scored on a cash basis. For example, Pension Benefit Guaranty Corporation premiums are counted as receipts and pension payments are counted as outlays. Experts have recommended that Federal Credit Reform Act of 1990 concepts would provide better accounting of federal insurance.

Federal investment in corporate bonds or stocks. There are conflicting views about how the federal government's purchase of corporate stocks and bonds should be scored. Office of Management and Budget Circular A-11, a basic document on budget rules, says that

such a purchase is a government outlay, while the sale of such assets is a government receipt. Many budget experts believe it would be more consistent to treat the transaction as an exchange of assets. Consistent with this view, Congress in 2002 allowed the Railroad Retirement Board to invest its assets in stocks and corporate bonds and both the Congressional Budget Office and the Office of Management and Budget scored the transactions as an exchange of assets.