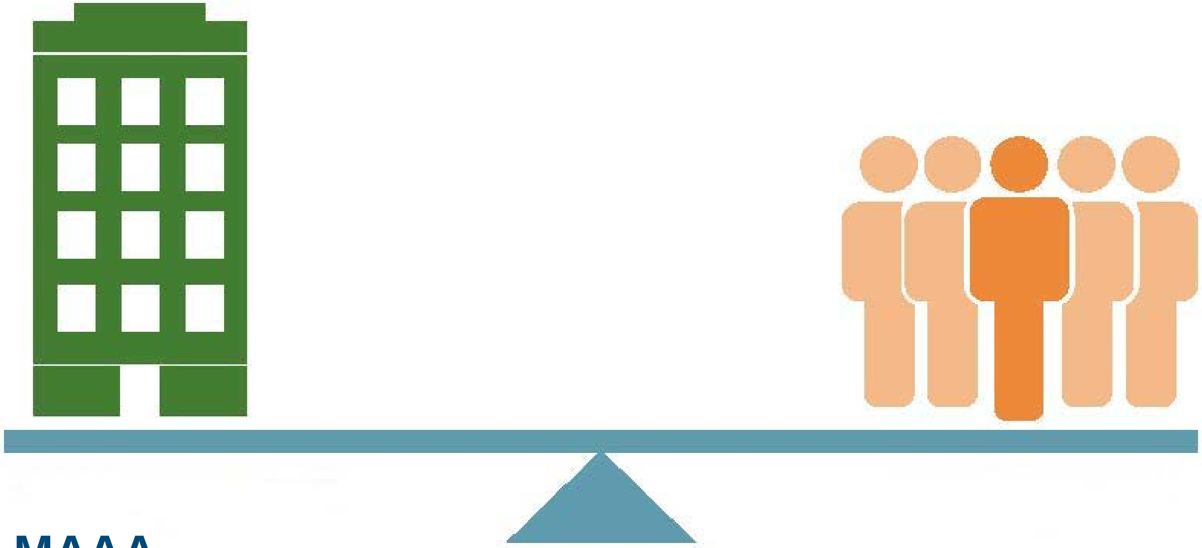
Western Pension & Benefits Council

November 17, 2015

Revitalizing your retirement strategy—An innovation in retirement plan design



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Tightening labor market

- “U.S. job openings surged to a record high in July and employers appeared to have trouble filling openings.”
- “Job openings were concentrated in professional and business services, accommodation and food services, retail trade, and nondurable goods manufacturing.”
- “The data now signal unambiguously that the labor market is unable to supply the people companies need.”

  –Ian Shepherdson*

Quotes from “U.S. job openings hit record high as labor market tightens,” by Lucia Mutikani, Reuters

*Chief Economist at Pantheon Macroeconomics, Reuters

Tightening labor market

- Result
  - Increased job changing
  - Fewer qualified candidates for openings
- How will your company respond?
- How will you retain your best employees?
- How will you attract and then retain top talent?

How will you stand out?

Will you have
the more competitive
wage and benefits package?

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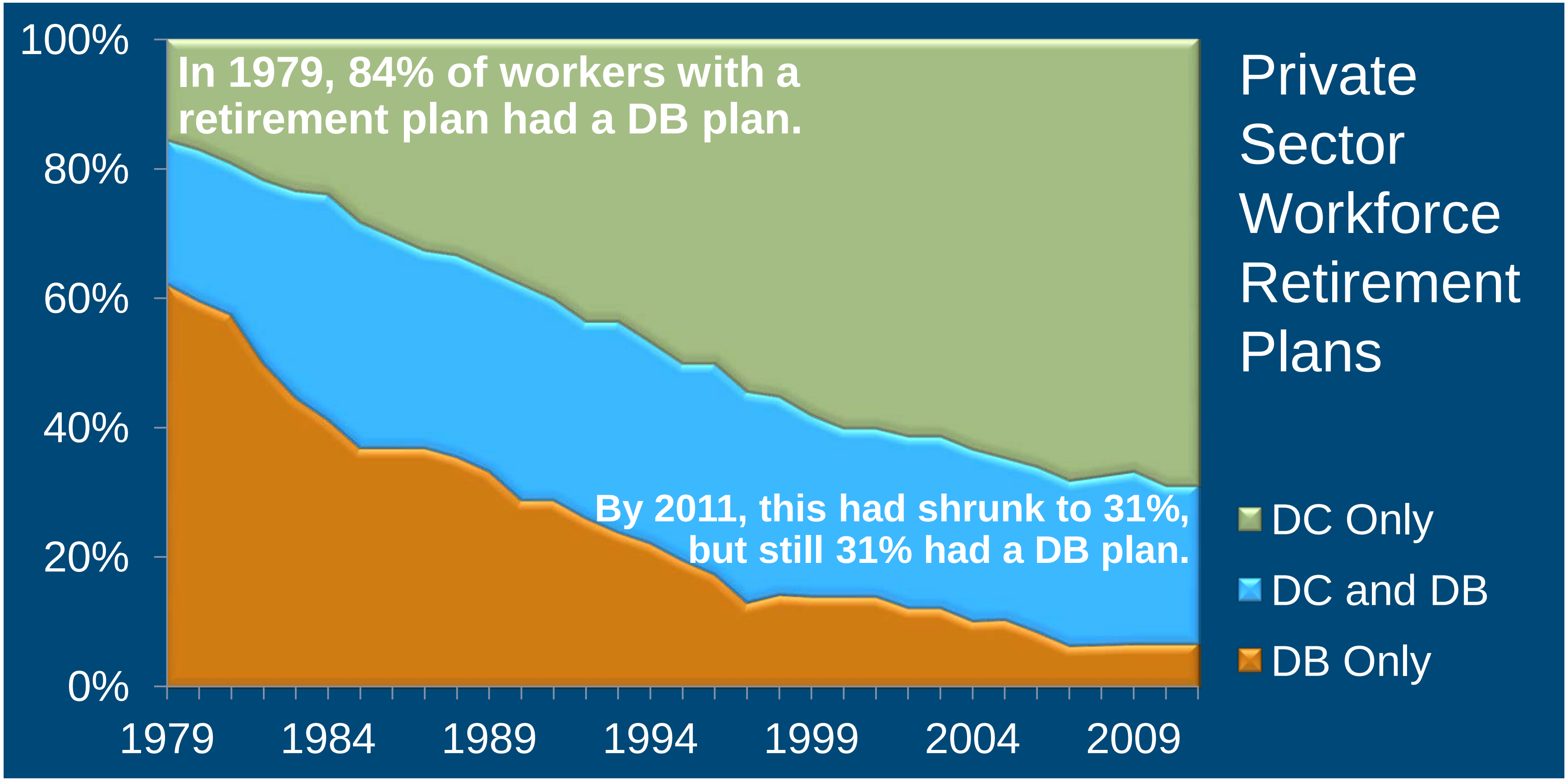
How will you stand out?

- Competitive wage and benefits package
  - Pay
  - Medical: May be harder to differentiate under ACA
  - PTO
  - Creative benefits
    - Flexible schedules
    - Pets at work
    - Food service
    - Dry cleaning service
  - For younger workers
    - Culture matters
    - Meaningful cause: Does the company have a positive impact in the world?

How will you stand out?

- Retirement plan
  - How will you maximize employee value with your retirement plan?
  - Older workers have not accumulated sufficient savings to retire.
  - Younger workers do not want to manage their own retirement, according to Towers Watson survey.

History of predominant plan designs



- EBRI, 2015

History of predominant plan designs

- Defined benefit (DB) plans
  - Work great for participants
  - Difficult for employers, volatile markets result in
    - Plan underfunding and volatile contribution requirements
    - As plans matured
      - Plans got large compared to the size of the company
      - Volatility became unbearable
- Many employers switched to Defined Contribution (DC) plans
  - Eliminated employer risks
  - Transfers those risks to participants

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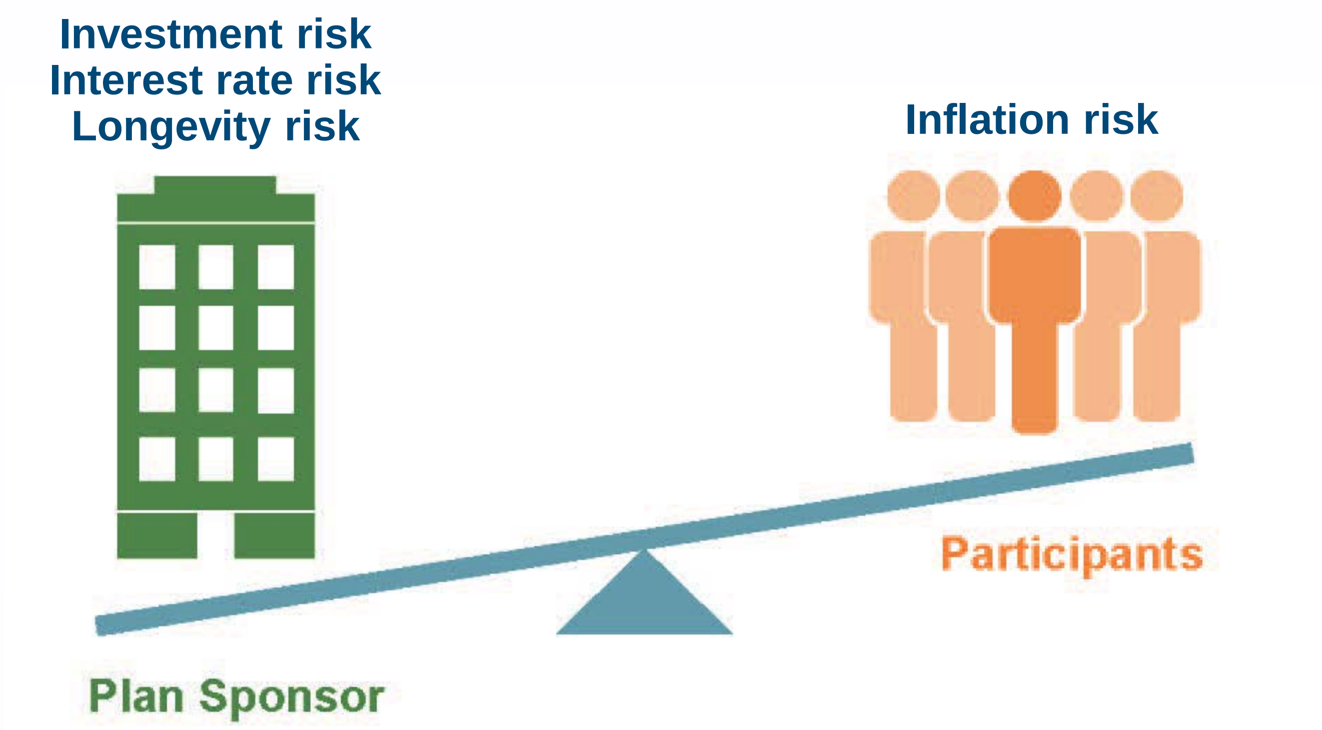
Retirement Risks

Traditional Defined Benefit Plan

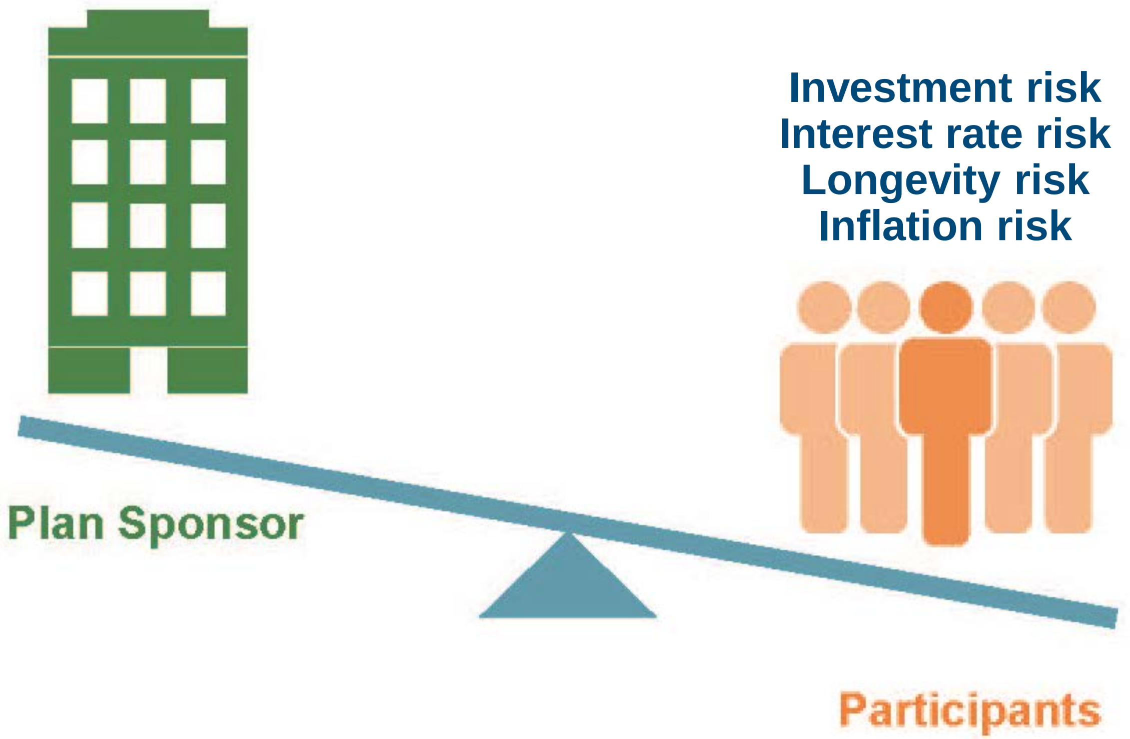
- Plan Sponsor bears **most** of the risks



Retirement Risks

Defined Contribution Plan

- Plan Sponsor bears **<u>none</u>** of the risks
- Participants bear **<u>all</u>** of the risks



History of predominant plan designs

- DC plans
  - Employers
    - Stable, predictable contributions
    - Stable balance sheet liability
  - Participants
    - Have very real chance of outliving their assets
    - No lifetime benefit guarantee
  - Smaller benefit per dollar of contribution
    - Lower investment returns compared to professional management
    - Higher fees after rollover to IRA
    - No longevity pooling

Predominant plan design comparison

	Plan maintains 100% funding in all market conditions	Prevents investment losses from creating contrib. volatility	Balanced asset allocation to maximize return	Lifelong income, longevity pooling, provides larger benefits	Designed to provide inflation protection in retirement	Retiree benefit never decreases
DB Plan	No	No	Yes	Yes	No	Yes
DC Plan	Yes	Yes	Maybe	No	Maybe	No
	Funding considerations			Benefit considerations		

Good feature

Bad feature

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What if DB or DC is a false choice?

- If we could start from scratch we would want a plan that:
  - Stays fully funded in all market conditions
  - Has stable, predictable contributions
  - Stable benefits
    - Providing lifelong income to participants
    - With inflation protection
  - Provides desirable benefit program
    - Improves ability to attract and retain top talent
    - Provides orderly exit from the workforce

What if DB or DC is a false choice?

How about a plan with:

- Stable, predictable contributions for the employers, like a DC plan, and
- Lifelong retirement income for participants, like a DB plan, plus inflation protection.

This is a place where HR and Finance can co-exist.

This is a Stabilized VAPP.

Basic VAPP

- VAPP is Variable Annuity Pension Plan
- Legal since 1953. It is not an insurance product!
- Design was more popular in the 1950s through 1970s, but benefit declines were a drawback
- Some of these plans around that have been around a long time
- There has been renewed interest since 2008
- In September 2014 regulations passed allowing for the Stabilized VAPP

Basic VAPP

- Accrual pattern like traditional DB Plan
- Participant earns a benefit for each year of service
- Then accruals go up AND down based on the Fund's actual return on assets for actives AND retirees
- Benefits can be volatile, even in retirement
- Keeps assets and liabilities in balance by adjusting <u>liabilities</u>
- Plan stays funded in all market conditions

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Basic VAPP

- Career average, flat dollar, or $/hour accumulation
- “Hurdle Rate”, usually set between 4% and 5%
- Liabilities calculated at hurdle rate
- Contributions must be at least as large as normal cost plus expenses
- Earned Benefits Fluctuate Annually Based on Investment Return
  - Return = Hurdle Rate: accrued benefits do not change
  - Return > Hurdle Rate: accrued benefits increase by excess
  - Return < Hurdle Rate: accrued benefits decrease by shortfall

Basic VAPP

- Example
  - Suppose a retiree's benefit is $1,000/month
  - The plan has a 4% hurdle rate and gets a -1% return.
  - The new monthly benefit amount under the VAPP is $952.

    $1,000 * (1-0.01)/(1+0.04) = $952
  - The next year, the plan's return is 16%.
  - The monthly benefit amount changes to $1,062.

    $952 * (1+0.16)/(1+0.04) = $1,062

Stabilized VAPP

- Like a basic VAPP
- In addition to the “hurdle rate,” has a “cap”, which limits benefit increases in years with particularly high returns
- “Stabilization reserve,” which is built in years when the “cap” is reached, is used to “shore-up” benefits when returns are less than the “hurdle rate”
- “High-water-mark” is highest benefit level ever paid, and is paid as long as there are sufficient “stabilization reserves”

Stabilized VAPP

- Example
  - Suppose a retiree's benefit is $1,000/month in a plan with a 4% hurdle rate
  - The Plan gets a -1% return
  - The new "underlying benefit" is $952, which is fully funded

$$\$1{,}000 * (1-0.01)/(1+0.04) = \$952$$

  - The retiree receives the $952 "underlying benefit" and $48 "shore-up" from the "stabilization reserve", so the "high-water-mark" benefit of $1,000 is preserved

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Stabilized VAPP

- Example
  - The next year, the adjustment is applied to the “underlying benefit” of $952
  - The plan’s return is 16%, which would result in a basic VAPP increase of 11.5%

$$(1+0.16)/(1+0.04)-1=11.5\%$$

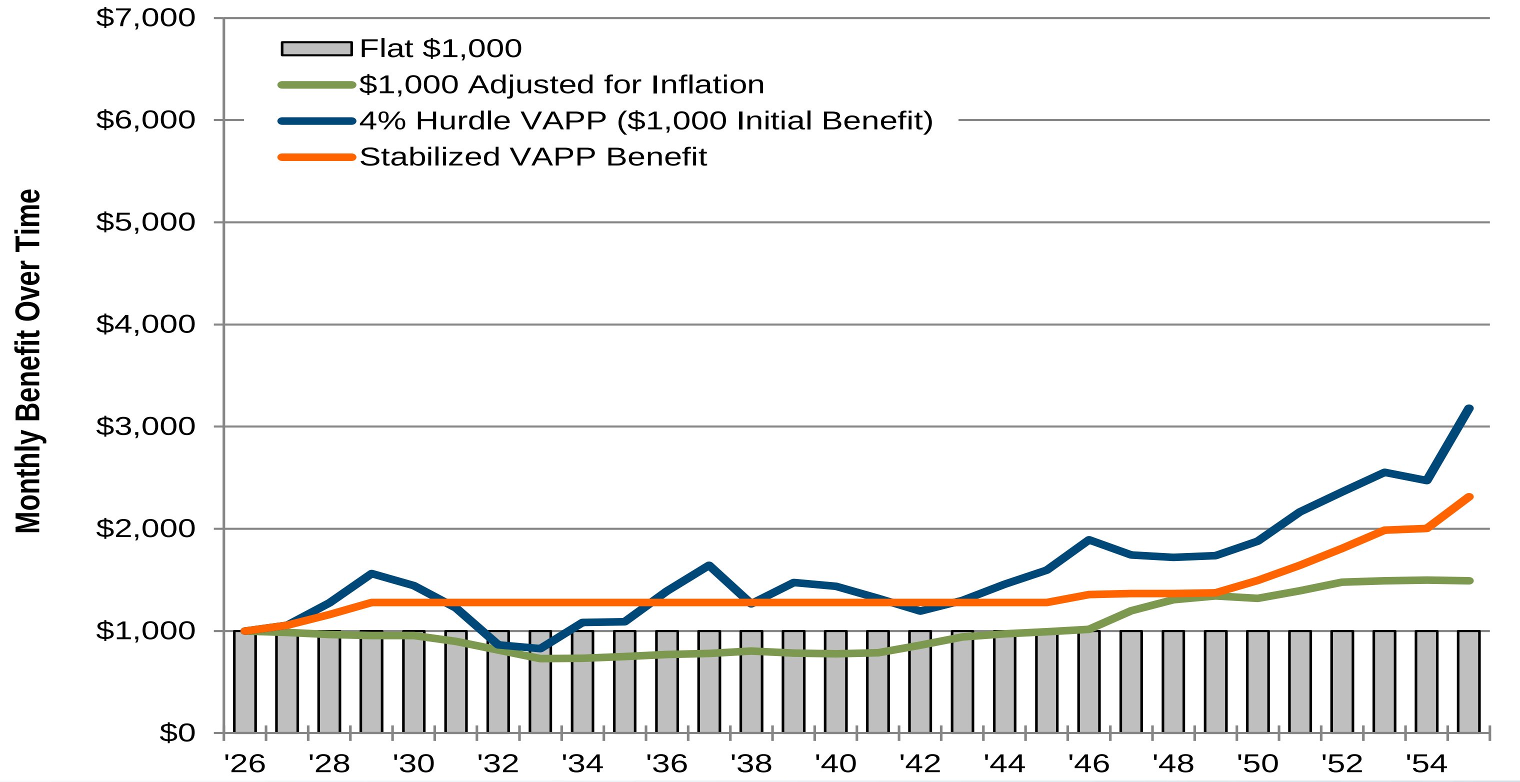
  - But, the stabilized VAPP has “cap”, so benefit increases are limited to 10%
  - The monthly benefit amount changes to $1,047

$$\$952 * 1.10 = \$1,047$$

  - The excess above 10% builds the “stabilization reserve” to “shore-up” benefits if future downturns

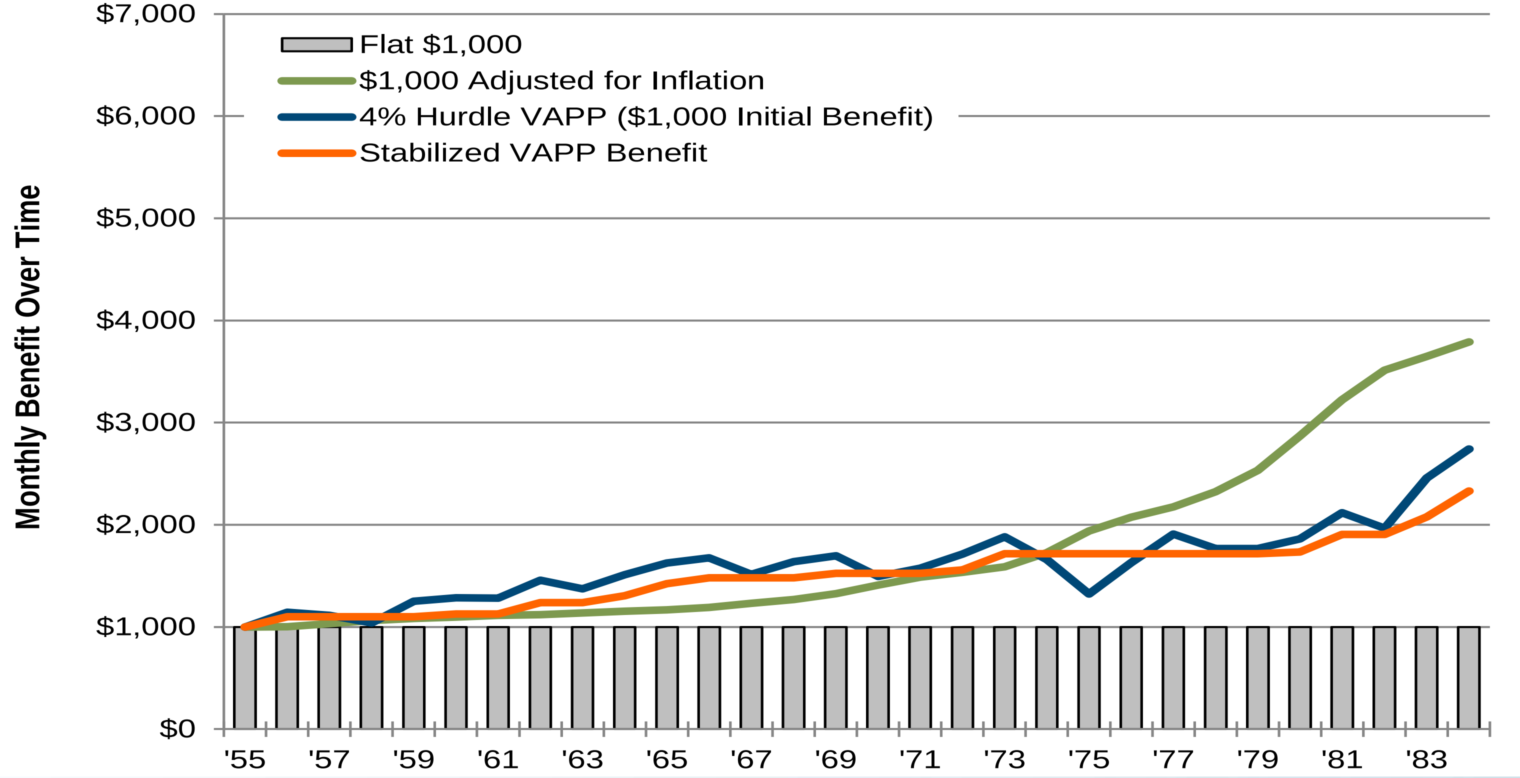
Stabilized VAPP

- Cap increases at 10%, limit funded status to 125%, 4% hurdle
  - 70% Stocks / 30% bonds from **1926 to 1955**; 115%



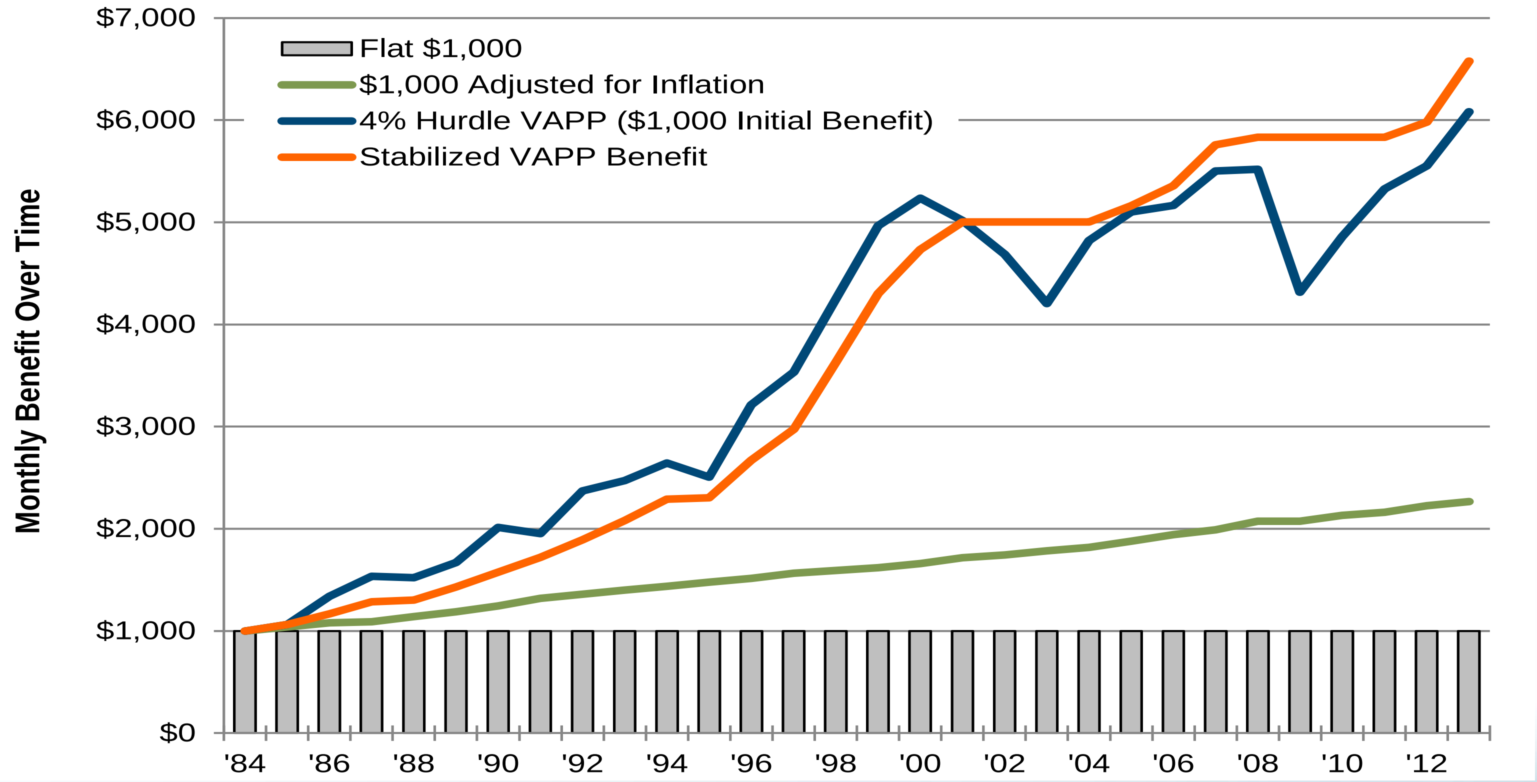
Stabilized VAPP

- Cap increases at 10%, limit funded status to 125%, 4% hurdle
  - 70% Stocks / 30% bonds from **1955 to 1984**; 115%



Stabilized VAPP

- Cap increases at 10%, limit funded status to 125%, 4% hurdle
  – 70% Stocks / 30% bonds from **1984 to 2013**; 115%



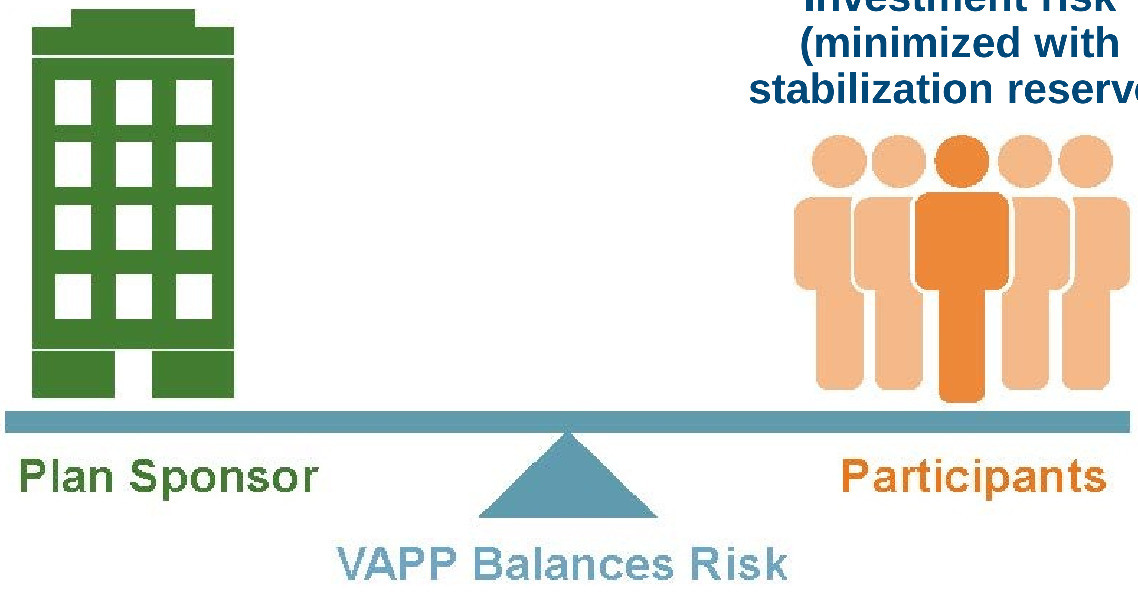
Retirement Risks

Variable Annuity Pension Plan (VAPP)

- Risks are shared

Longevity risk
(minimized with pooling)

Investment risk
(minimized with
stabilization reserve)



Inflation and interest rate risks
(significantly reduced)

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Stab. VAPP	Yes	Yes	Yes	Yes	Yes	Maybe
	Funding considerations			**Benefit considerations**		

Good feature

Bad feature

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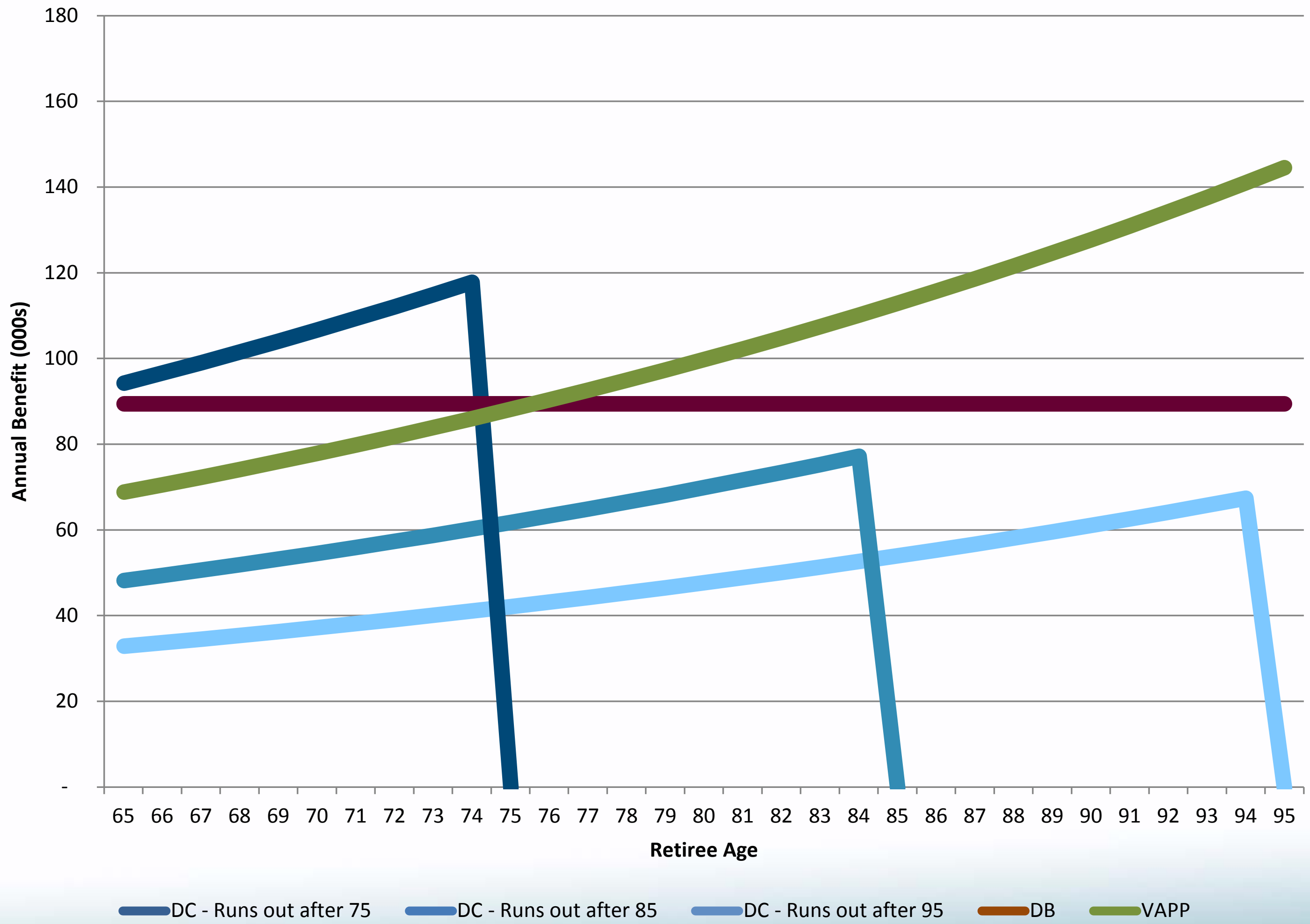
Benefits Side by Side

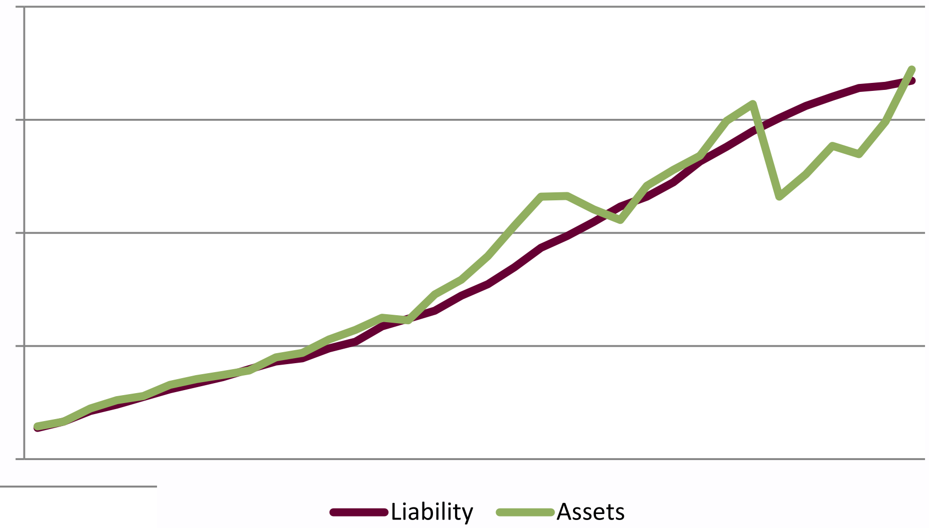
- How do benefits compare for DC vs DB vs VAPP?
  - Based on accumulated benefits in DB and VAPP
  - Based on accumulated account balance in DC
- We have assumed:
  - The same accumulated value for each plan at age 65
  - Assets earn 6.6% in all years
  - Retirement income increases 2.5% per year for inflation in DC and VAPP

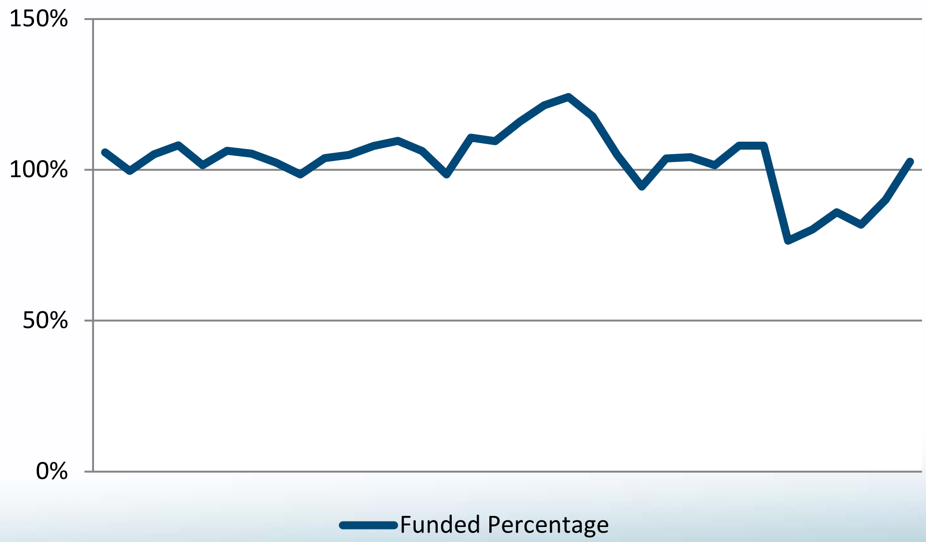
Benefits Side by Side



Funding Side by Side

- Traditional DB Plan





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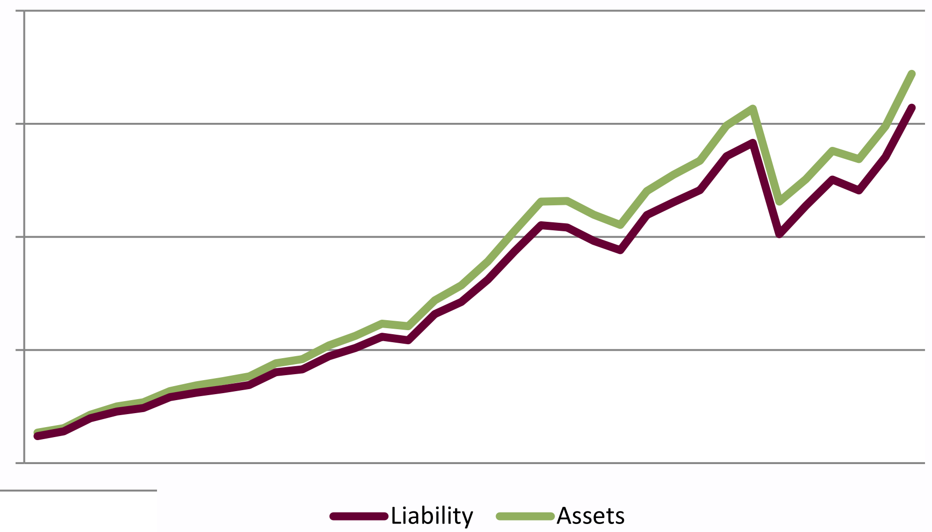
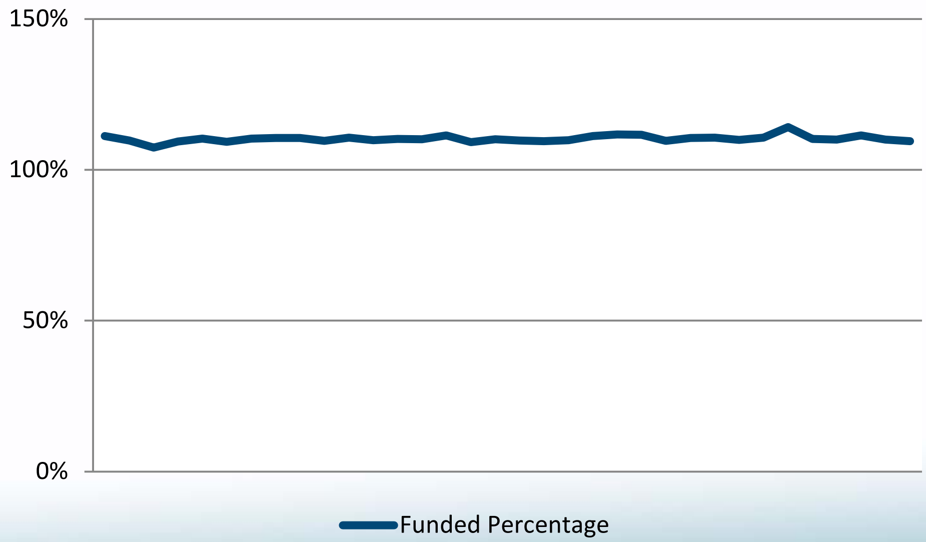
Funding Side by Side

- VAPP





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Anecdote

- My grandpa worked as a mailman. My grandma stayed home and raised the kids.
- After my grandpa died, I reviewed my grandma's finances. She was 80.
  - Social Security, not large, but inflation adjusted.
  - Civil Service retirement, not large, but inflation adjusted.
  - Personal savings, not large, but enough to reroof the house once more, buy a new car and take a few trips.
- They had the traditional three-legged stool of retirement security.

Anecdote

- Most folks now just have one or two legs
- We can get back to retirement security:
  - Social Security
  - Stabilized VAPP
  - DC for tax advantaged personal savings

DB or DC is a false choice

- DC plans are hard for participants to manage
- DB plans are hard for employers to manage
- A Stabilized VAPP provides
  - For employers
    - Stable contribution requirements
    - Stable balance sheet
    - Plan stays fully funded
    - Maximum benefit per $1 of contribution
  - For participants
    - Lifelong inflation protected benefits
    - Maximum benefit per $1 of contribution

Next steps

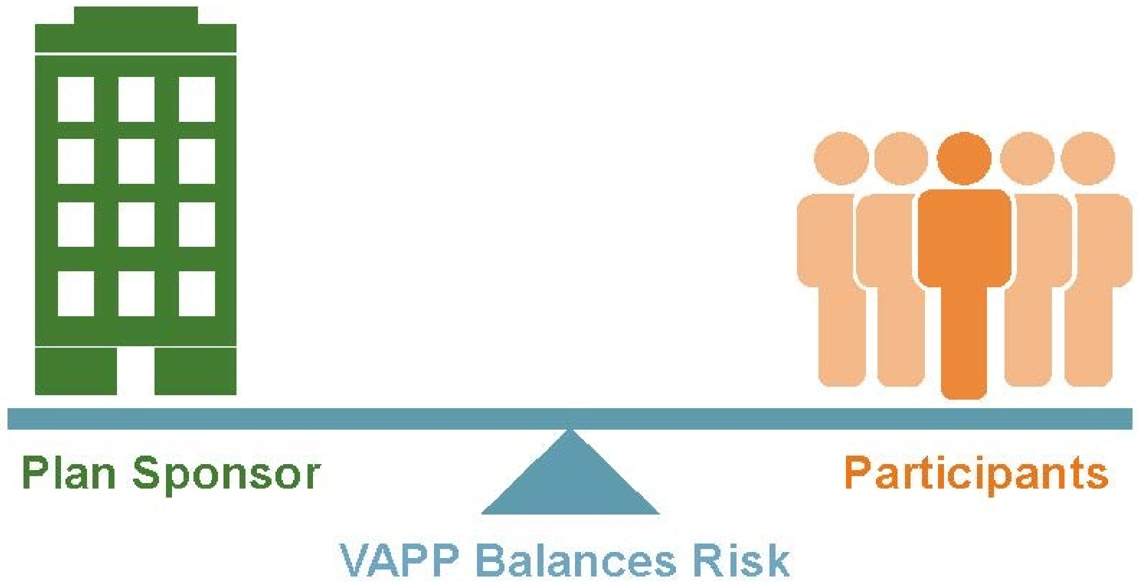
- We have one plan that went live 1/1/15
- We have one plan going live 1/1/16
- We have two others that are targeting mid-year 2016 or 2017
- Change requires a champion
- Let’s change the landscape of retirement security!

Conclusion

- Whether you currently have a DC a DB or both, give some thought to a Stabilized VAPP
- A VAPP provides
  - Stable contributions
  - Lifelong benefits
  - Inflation protection

- For more information, you can contact me or go to: http://www.milliman.com/insight-VAPPs/

Questions?



Resources

- http://www.milliman.com/insight-VAPPs/
- "Asset Driven Liabilities: The Variable Annuity Plan," Donald Fuerst, Enrolled Actuaries Meeting, Session 103, April 7-10, 2013.
- "2012 Hot Topics in Retirement: Waning Confidence and the Need for Continued Innovation," Survey Highlights, Aon Hewitt, 2011.
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- "Defined Benefit vs. 401(k) Investment Returns: The 2006 2008 Update," Towers Watson Insider, December 2009.
- Employee Benefit Research Institute (EBRI), 2015
- "What Young People Want from Work," by Catherine Clifford, June 18, 2014, entrepreneur.com