

# **Funding Social Security: Still Manageable with Little Distress..... for Now**

**A White Paper by:**

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## **Introduction & Importance**

Now is the time to act. Social Security is the single largest liability of the US Government at between 14 and 19 trillion dollars of unfunded liability. If you improve Social Security solvency you improve everything for all Americans. Most particularly you improve the lives for those for whom Social Security represents all or nearly all of their retirement income.

Social Security can be likened to a huge cruise ship. It is not easy to turn, stop or start. An entity this large requires advance planning and execution. If we do the planning and execution now, future course corrections will be mild such that the passengers (taxpayers) will barely notice. If we neglect our duty now severe course corrections will be required resulting in the passengers being tossed to and fro. The concept is simple enough but your current constituents will likely not feel the effects of poor planning for many years. Indeed, many current politicians will long be out of office by the time their constituents are being tossed around. This means courage is required to take action now. As a politician no political capital will be earned now. In fact, you may never receive political capital in your career as the actions that are taken (or not taken) now will be felt over decades not days or weeks or even years. Nevertheless, Congress and the Executive Branch have a fiduciary obligation to assure that promises made to current and future Americans can and will be met.

Fortunately, we are not yet at a point where the actions required will disturb your constituents all that much. But time is growing short.

There are many possible solutions to begin the process of funding our Social Security liability. The three-pronged solution outlined in this Paper is one possible solution. Doing nothing is not a solution.

## **Three-part Solution**

1. Take a dynamic and fluid view of OASI contributions
2. Convert the OASI Trust Fund into a funded Trust with actual marketable securities.
3. Creation of a 100-year zero coupon pension liability retirement bond

### **1. Dynamic OASI Rate – Part 1**

#### **Current**

Each eligible employee (government workers and railroad workers are exempt) contributes 6.2% of their gross wages to Social Security. Their employers match their contribution with 6.2%. Contributions are capped at the Social Security Wage Base maximum which is indexed for inflation.

These contributions represent the majority of Social Security funding. The most current Social Security report indicates at the current contribution rates annual Social Security payouts will exceed deposits by 2021.

Chart 1 taken from the ssa.gov site outlines the problem. As baby boomers continue to retire and as the population in general lives longer there are not enough workers to cover the total distributions.

**Chart 1 -via ssa.gov**

<b>Current Projections with No Change</b>										
<b>OASI (Billions)</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>
Projected Income	823	853	913	954	996	1047	1096	1143	1190	1235
Projected Distributions	996	1049	1108	1173	1242	1313	1385	1468	1549	1633
Deficit	-173	-196	-195	-219	-246	-266	-289	-325	-359	-398

Attempting to raise the OASI (Old-Age and Survivors Insurance) contribution rate to meet the long-term projected liabilities of OASI has two main issues:

1. Such an increase would likely be traumatic to contributors
2. Said increase would not assure coverage of future liabilities – leaving OASI participants with a traumatic upfront contribution increase and still no assurance that the promises made to them will be met

A more dynamic solution is required, one that could respond to higher or lower liabilities quickly without traumatizing the OASI participants.

The Dynamic OASI Rate suggested by this Paper would have two components.

1. 10-year 4% amortization of the prior years short fall in funding
2. Automatic 2% increase in the OASI contribution rate after a deficit year

Fully funding the 2021 projected deficit of \$173b would require an estimated increase of the OASI contribution rate from 6.2% for employees to 7.5%. 1.3% for a family earning \$50,000 is \$650 or about \$12.50 per week. When other standard deductions are considered from a families’ wages, \$650 could easily equal more than 2% of said families’ take-home pay.

By amortizing the deficit over 10 years at 4% the increase is a more manageable .16%. This represents about \$80 a year for the same family or about \$1.55 a week.

The gradual increase reduces trauma to the OASI participant while still providing the OASI Trust with the funding it needs.

The second component of the Dynamic OASI Rate would provide for an automatic 2% increase in the OASI contribution rate in the year following the year of a funding deficit.

By increasing the rate slowly as deficits manifest themselves, we can decrease or even eliminate deficits over time.

Chart 2 compares the current OASI funding projections provided by ssa.gov over the same period with funding projections utilizing the Dynamic OASI rate.

**Chart 2 – Part 1 via ssa.gov**

<b>Current Projections with No Change</b>										
<b>OASI (Billions)</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>
Projected Income	823	853	913	954	996	1047	1096	1143	1190	1235
Projected Distributions	996	1049	1108	1173	1242	1313	1385	1468	1549	1633
Deficit	-173	-196	-195	-219	-246	-266	-289	-325	-359	-398

<b>Dynamic OASI Rate</b>										
<b>OASI (Billions)</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>
Projected Income	823	870.06	949.8852	1012.392	1078.102	1155.973	1234.274	1312.948	1394.275	1475.939
Projected Distributions	996	1049	1108	1173	1242	1313	1385	1468	1549	1633
Deficit	-173	-178.94	-158.1148	-160.608	-163.898	-157.027	-150.726	-155.052	-154.725	-157.061

By amortizing deficits as they occur and increasing funding as we incur deficits, we are able to shrink the projected funding deficit more than 50% by 2028.

Projecting the Dynamic OASI Rate out another 10 Years to 2040, deficits continue to decrease and a surplus is projected for the 2040 fiscal year.

When the SSA projects future distributions they provide a range of possible outcomes including a low, median and high cost scenario. For purposes of this Paper we have utilized the ‘high cost’ cost scenario. However, since the Dynamic OASI Rate is indeed dynamic, participants would automatically enjoy the benefits of lower costs should those manifest themselves.

In addition, this Paper utilizes a dynamic rolling method of projecting future covered payroll based on past covered payroll growth. The method in question may understate or overstate future covered payroll but the methodology deployed is likely conservative. Higher future covered payrolls would be very helpful to OASI funding but once again since the Dynamic OASI Rate is indeed dynamic – OASI participants would automatically benefit.

**Chart 3 (billions)**

<u>2031</u>	<u>2032</u>	<u>2033</u>	<u>2034</u>	<u>2035</u>	<u>2036</u>	<u>2037</u>	<u>2038</u>	<u>2039</u>	<u>2040</u>
1559.542474	1646.759	1748.501	1850.245	1951.995	2052.438	2152.861	2255.085	2360.947	2482.151
<b>1706.511856</b>	<b>1786.909</b>	<b>1881.233</b>	<b>1973.583</b>	<b>2063.957</b>	<b>2149.746</b>	<b>2220.834</b>	<b>2291.062</b>	<b>2362.246</b>	<b>2445.813</b>
-146.9693812	-140.1499	-132.732	-123.3377	-111.9623	-97.30832	-67.97285	-35.97727	-1.299306	36.33799
<u>2041</u>	<u>2042</u>	<u>2043</u>	<u>2044</u>	<u>2045</u>	<u>2046</u>	<u>2047</u>	<u>2048</u>	<u>2049</u>	<u>2050</u>
2547.204014	2608.374096	2664.683484	2717.585289	2768.841388	2872.709509	2930.077172	2979.99203	3026.508183	3068.976607
<b>2525.424374</b>	<b>2593.291056</b>	<b>2656.650319</b>	<b>2716.914554</b>	<b>2775.821784</b>	<b>2829.718415</b>	<b>2892.588382</b>	<b>2949.951095</b>	<b>3004.211039</b>	<b>3056.360134</b>
21.77964042	15.08303986	8.033164683	0.670734797	-6.98039639	42.99109494	37.48878986	30.04093536	22.2971443	12.6164731

Surplus

Once a surplus is achieved in 2040, OASI is able to continue producing a surplus in 9 of the next 10 years as depicted in Chart 3.

Surpluses, like deficits, are amortized over 10 years and returned to OASI participants via lower contribution rates.

In the next decade surpluses are projected in seven of the ten years as depicted in Chart 4.

**Chart 4 (billions)**

<u>2051</u>	<u>2052</u>	<u>2053</u>	<u>2054</u>	<u>2055</u>	<u>2056</u>	<u>2057</u>	<u>2058</u>	<u>2059</u>	<u>2060</u>
3105.533534	3203.490974	3236.492975	3275.2724	3374.924618	3403.899085	3430.169301	3452.641955	3543.614162	3563.692413
<b>3124.789975</b>	<b>3178.901334</b>	<b>3228.870659</b>	<b>3284.985734</b>	<b>3336.167346</b>	<b>3384.340947</b>	<b>3428.353505</b>	<b>3468.824775</b>	<b>3508.537687</b>	<b>3544.81996</b>
-19.2564407	24.58963947	7.622315636	-9.71333435	38.75727146	19.55813787	1.815795874	-16.1828208	35.07647432	18.87245306

We have established the Dynamic OASI Rate would allow the OASI trust to fund its promises without incurring persistent deficits.

The remaining question is; can the participants afford to make the contributions that the Dynamic OASI Rate would require?

Chart 5 illustrates the cost of the Dynamic OASI Rate for a family earning \$25,000 a year of covered compensation.

Over the next ten years persons in this income range would see an increase in their OASI contributions of \$1 to \$1.50 a week per year. This sort of gradual increase lightens the economic impact on the participant and therefore likely lightens the impact on the overall economy.

**Chart 5**

Cost for Family earning \$25,000	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030</u>
YoY \$ Increase	40.17	71.09	64.72	64.42	64.34	62.22	60.51	86.76	34.53	60.62
YoY % Increase	0.16%	0.28%	0.26%	0.26%	0.26%	0.25%	0.24%	0.35%	0.14%	0.24%

  

<u>2031</u>	<u>2032</u>	<u>2033</u>	<u>2034</u>	<u>2035</u>	<u>2036</u>	<u>2037</u>	<u>2038</u>	<u>2039</u>	<u>2040</u>
18.83	17.92	23.85	23.62	23.12	24.44	23.72	20.90	18.71	15.90
0.08%	0.07%	0.10%	0.09%	0.09%	0.10%	0.09%	0.08%	0.07%	0.06%

  

<u>2041</u>	<u>2042</u>	<u>2043</u>	<u>2044</u>	<u>2045</u>	<u>2046</u>	<u>2047</u>	<u>2048</u>	<u>2049</u>	<u>2050</u>
-24.33	-21.83	-19.24	-16.55	-13.76	28.72	-11.92	-7.13	-2.24	2.91
-0.10%	-0.09%	-0.08%	-0.07%	-0.06%	0.11%	-0.05%	-0.03%	-0.01%	0.01%

  

<u>2051</u>	<u>2052</u>	<u>2053</u>	<u>2054</u>	<u>2055</u>	<u>2056</u>	<u>2057</u>	<u>2058</u>	<u>2059</u>	<u>2060</u>
4.14	45.45	0.16	0.93	42.89	2.55	3.48	4.25	47.03	-0.43
0.02%	0.18%	0.00%	0.00%	0.17%	0.01%	0.01%	0.02%	0.19%	0.00%

As the amortizations of past deficits begin to mature the OASI participants projected annual increases are reduced to less than 50 cents per week in the next decade. Negative YoY amounts represent decreases in the OASI rate for the participant.

Would a reasonable person contribute a dollar a week knowing that their benefit was now properly funded and that their children’s benefit and/or grandchildren’s benefit was also properly funded? It is a rhetorical question – but one would think the answer is a resounding “Yes.”

Chart 6 depicts the same cost study for an individual or family earning \$50,000 a year

**Chart 6**

Cost for Family earning \$50,000	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
YoY \$ Increase	80.34	142.18	129.43	128.85	128.69	124.43	121.01	173.52	69.07	121.25
YoY % Increase	0.16%	0.28%	0.26%	0.26%	0.26%	0.25%	0.24%	0.35%	0.14%	0.24%
<u>2031</u>	<u>2032</u>	<u>2033</u>	<u>2034</u>	<u>2035</u>	<u>2036</u>	<u>2037</u>	<u>2038</u>	<u>2039</u>	<u>2040</u>	
37.66	35.84	47.70	47.24	46.24	48.87	47.45	41.80	37.42	31.79	
0.08%	0.07%	0.10%	0.09%	0.09%	0.10%	0.09%	0.08%	0.07%	0.06%	
<u>2041</u>	<u>2042</u>	<u>2043</u>	<u>2044</u>	<u>2045</u>	<u>2046</u>	<u>2047</u>	<u>2048</u>	<u>2049</u>	<u>2050</u>	
-48.67	-43.66	-38.47	-33.10	-27.52	57.44	-23.83	-14.26	-4.48	5.82	
-0.10%	-0.09%	-0.08%	-0.07%	-0.06%	0.11%	-0.05%	-0.03%	-0.01%	0.01%	
<u>2051</u>	<u>2052</u>	<u>2053</u>	<u>2054</u>	<u>2055</u>	<u>2056</u>	<u>2057</u>	<u>2058</u>	<u>2059</u>	<u>2060</u>	
8.28	90.90	0.31	1.86	85.78	5.10	6.95	8.49	94.07	-0.86	
0.02%	0.18%	0.00%	0.00%	0.17%	0.01%	0.01%	0.02%	0.19%	0.00%	

Chart 7 depicts the same cost study for an individual or family earning \$100,000 a year

**Chart 7**

Cost for a Family earning \$100,000	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
YoY \$ Increase	160.68	284.35	258.86	257.70	257.38	248.87	242.03	347.03	138.13	242.50
YoY % Increase	0.16%	0.28%	0.26%	0.26%	0.26%	0.25%	0.24%	0.35%	0.14%	0.24%
<u>2031</u>	<u>2032</u>	<u>2033</u>	<u>2034</u>	<u>2035</u>	<u>2036</u>	<u>2037</u>	<u>2038</u>	<u>2039</u>	<u>2040</u>	
75.32	71.69	95.39	94.49	92.47	97.75	94.90	83.61	74.84	63.59	
0.08%	0.07%	0.10%	0.09%	0.09%	0.10%	0.09%	0.08%	0.07%	0.06%	
<u>2041</u>	<u>2042</u>	<u>2043</u>	<u>2044</u>	<u>2045</u>	<u>2046</u>	<u>2047</u>	<u>2048</u>	<u>2049</u>	<u>2050</u>	
-97.33	-87.33	-76.95	-66.19	-55.04	114.87	-47.66	-28.53	-8.97	11.63	
-0.10%	-0.09%	-0.08%	-0.07%	-0.06%	0.11%	-0.05%	-0.03%	-0.01%	0.01%	
<u>2051</u>	<u>2052</u>	<u>2053</u>	<u>2054</u>	<u>2055</u>	<u>2056</u>	<u>2057</u>	<u>2058</u>	<u>2059</u>	<u>2060</u>	
16.56	181.80	0.63	3.71	171.56	10.21	13.91	16.99	188.14	-1.71	
0.02%	0.18%	0.00%	0.00%	0.17%	0.01%	0.01%	0.02%	0.19%	0.00%	

Chart 6 and 7 are provided for the readers convenience. One can find the cost projections for the Dynamic OASI Rate for any covered income level by utilizing the \$100,000 earning chart to prorate the amount of compensation in question.

The Dynamic OASI Rate resolves, at least over the intermediate term, the two main problems in crafting a funding solution for OASI:

1. It smooths the future cost increases required to fund OASI thereby making any funding changes less traumatic to the OASI participants
2. It provides dynamic funding to the OASI fund such that deficits are funded immediately allowing the OASI fund to remain solvent without legislative action

Additionally, the Dynamic OASI Rate is calculated with zero contributions from the current OASI Trust.

### **Three Part Solution – Part 2**

#### **2. OASI Trust Fund -Investing for the Future**

The current balance of the OASI Trust is approximately 2.8 trillion dollars. The Trust is funded entirely with special notes payable from the US Government. The notes are not marketable and cannot be purchased or sold by any entity other than the US Government.

The notes accrue interest at a rate determined by a formula described under section 201(d) of the Social Security Act. The trailing blended rate of interest for the 2019 fiscal year was 2.78%. Assuming an average maturity of 7 years in the portfolio the market value of these notes – if they were marketable – would be 3.24 trillion dollars.

The current investment regime of the OASI Trust is not sustainable. According to the most recent Social Security Administration report the funds in the Trust will be completely depleted by 2035. This assumes that the principal and interest would be drawn to subsidize the income from OASI contributions.

The recommendation of this Paper is to change the investment regime and intermediate term purpose of the Social Security Trust Fund. The logic behind this recommendation is that the current overall regime is only moderately helpful currently and is projected to go away completely in a short period of time becoming less and less helpful each year. America is a perpetuity. The opportunity exists to build the Trust so it can be helpful to many generations to come as opposed to being decreasingly helpful for just 15 years or so. Now is the time to make a change.

Converting the OASI Trust Fund to a funded Trust with actual marketable securities similar to the pension trusts of state and federal employees makes sense from both an actuarial, risk and investment standpoint.

Actuarially the projections for the OASI Trust cannot be more dire. This being the case it makes sense to change strategies. Although converting the OASI Trust to marketable securities does create market-based risk we already know that the outcome of the current investment strategy depletes the OASI Trust completely. By combining the Dynamic OASI Rate with active management of the OASI Trust Assets, the Trust could be allowed to grow with the goal of reaching a level of well-funded. A well-funded pension trust is currently one that has funded 80% of its' accrued liabilities. Actively investing the OASI Trust assets within carefully set parameters has produced better returns than the current OASI Trust strategy and will likely provide better returns in the future. This is especially true given the current status of government bond rates.

The recommendation of this Paper is to perform an asset swap by having the OASI Trust transfer the special notes to the Federal Reserve and having the Federal Reserve transfer 3.24 trillion worth of US Government Securities, Mortgages and Corporate Bonds to the OASI Trust.

Once the OASI Trust owns marketable securities the Trust could rebalance the assets to a portfolio of Treasuries, Corporate and Municipal Bonds, Mortgages, Stocks, and REITs. The goal of the OASI Trust

would be to increase the average growth rate to 4-5% per annum while limiting volatility. And to ultimately grow the Trust to a level that is proportionate to the OASI liabilities.

This is a sea change. A change that has many moving parts and specifications. Said changes are listed below. The list is not intended to be exhaustive. Rather it is intended to describe in broad terms the construct and considerations in implementing said change.

### **Legislative**

This change in investment regime and purpose requires legislative action. Currently the OASI trust may only be invested in US Government backed debt.

### **Trustees**

Heretofore the Trustees have had little work to do when deciding on how the OASI Trust was to be invested. Going forward the Trustees would need to be involved in the Asset Manager selection process including setting contractual terms. The Trustees would also set general investment policy for the OASI Trust fund.

### **Staffing**

The OASI does not currently have the staffing or expertise to manage a portfolio of marketable securities. There are two possible courses of action. One is to attempt to hire the personnel necessary to manage the OASI Trust Assets. The other is to contract the work out to asset managers in the private sector.

Attempting to hire enough personnel has two main difficulties. The market for such employees is tight. It would be very difficult to compete with the private sector for such employees. Further, hiring the sheer number of employees necessary to run such an enterprise would be difficult. For these reasons this paper will focus on the latter option of contracting the work out to private sector money managers.

Contracting the work of allocating and investing the OASI Trust is multi-faceted. The Trust needs managers for different classes of investment, asset allocation managers, accountability managers and custodians and traders.

#### **Accountability Manager**

The Accountability Manager would be in charge of tracking the metrics of each manager to make certain their performance and portfolio construction is in alignment with their charge under their specific contract.

#### **Asset Allocation Manager**

The Asset Allocation Manager would be in charge of selecting each sector manager. They would also be in charge of deciding on the overall allocation of the Trust within parameters set by the Trustees. They might also advise the Trustees on the most ideal overall allocation based on expected return and risk. Additionally, they would organize and manage custodial and trading relationships.



### **Sector Managers**

In order to achieve diversification, the Trust would need to own different types of securities. A pool of managers for each sector would need to be selected. For instance, 'intermediate term corporate bonds' is an example of a sector. There would be multiple sectors with multiple managers assigned to each sector.

### **Custodians**

Custodians are needed to hold the shares and bonds in question. A custodian provides the physical location of the securities and allows for the efficient trading of said securities. Multiple custodians will be needed.

### **Traders**

Traders execute the instructions of the various sector managers. They make the actual purchase or sell transaction per the Sector managers instruction. With the current state of automation, it is possible that some Sector managers might handle their own trading.

### **Job Creation**

Changing the investment regime of the OASI trust and contracting the work out to the private sector would create 1000's of permanent jobs. Perhaps more if a slice of the work is assigned to small business owners. Parameters for the hiring of firms would be specked out by the Asset Allocation Manager under the auspices of the Trustees.

Specifications might include demonstrable experience, resumes of key employees, past performance and size and scale. Specks might also include diversity requirements and under what circumstances and specifications the Trust might contract with smaller firms.

### **Fee expectations**

Due to the size of the OASI Trust a low fee regime could be contracted. Fees would vary depending on the contract parameters – but a range of 3 to 10 basis points would not be an unreasonable assumption. A low fee regime would be a significant barrier to entry for small businesses. The Trustees would have to weigh the importance of including small business with the potentially higher costs of their inclusion.

### **Moral Hazard and Conflicts**

Many may object to the OASI Trust owning marketable investments. The main objection being that such a large fund might manipulate the markets. Dissenters may say that the government should not be involved in the markets at all. Other objections might originate with the personnel managing the OASI Trust and the personal conflicts that they may experience. Fortunately, the OASI would not be a pioneer in this regard. State pension funds experience the same sorts of hazards and conflicts. They deal with these via a set of procedures which guide the conduct of the personnel and companies involved with managing their funds. Similar procedures could be adopted by the OASI Trust.

It is interesting that there is an ongoing objection to the US Government owning marketable securities. But the OASI Trust is not the US Government. The Trust represents the retirement interests of millions of Americans. Furthermore, there seems to be no objection to allowing the prudent investment of the

retirement funds of state and local government workers. Why disadvantage all other American workers by confining their retirement to intermediate term government bonds?

### **Federal Reserve**

An interesting and potentially helpful effect of the Federal Reserve accepting the swap of the Special Notes from the OASI Trust Fund is that the Special Notes could immediately be returned to the Treasury without a negative or positive affect on the marketplace. The Special Notes do not trade in the market place therefore turning them in should have no affect one way or the other on the financials markets. It is not the purpose of this Paper to provide advice to the Federal Reserve – but one would think reducing their balance sheet by 3.2 trillion would be helpful.

### **Expected Returns and Outcome**

Historically an asset allocation of 20-30% equity and 70-80% fixed income has provided returns in excess of 5%. Such an allocation might be deemed appropriate by the trustees. But future returns are expected to be muted for a variety of reasons. Chart 8 depicts the ratio of projected OASI Assets to Liabilities in each respective year calculated at three different rates of return. All the results depicted are far superior to the 0% path we are currently on.

### **Chart 8**

<b>Projected OASI Trust to Liability @ Varied ROR</b>			
<b>Year</b>	<b>4.00%</b>	<b>4.50%</b>	<b>5.00%</b>
<b>2030</b>	12.71%	13.27%	13.85%
<b>2040</b>	12.56%	13.76%	15.06%
<b>2050</b>	14.88%	17.10%	17.10%
<b>2060</b>	18.99%	22.89%	27.58%

### **Three Part Solution – Part 3**

#### **Financing the OASI Well-Funded Gap by 2060**

Part 1, The Dynamic OASI Rate, maintains the funding rate necessary to deliver promised benefits. Part 2, Investing in the Future with the OASI Trust Fund begins the process of growing the Trust to well-funded by 2060.

These two items alone are vast improvements over the current situation – but they alone do not give us a path to a well-funded OASI Trust fund by 2060. Chart 8 indicates a funding level of between 19% and 27%. Well-funded is considered 80%. This Paper estimates the additional level funding needed between now and 2060 in order to achieve a well-funded OASI Trust is between \$320 and \$360 billion dollars per year.

Thus, additional action is needed to put the Trust fund on the path to well-funded.

In order to obtain the funding required without adding outflows to an already strained federal budget this Paper recommends that a new series of treasury be issued – a 100-year zero coupon pension liability retirement bond (PLRB.)

This series of bonds will be designed to pay for themselves without the need to tap into the general federal budget.

A 'Zero-Coupon' is a bond that pays no interest during its' term. Instead the interest accrues and is paid all at once when the bond matures.

The rate could be pegged to twice the rate of the 30-year treasury bond – as of the writing of this Paper that rate is 1.52%. For purposes of preparing an example the rest of this Paper will assume the 30-year treasury is at 1.52% and therefore use a rate of 3.04% in the following illustrations.

The recommendation of this Paper is that the proceeds of the PLRBs be allocated in three equal parts:

1. OASI Trust Fund
2. PLRB Debt Retirement Trust Fund
3. The General Fund

### **OASI Trust**

As previously mentioned in order to achieve the status of well-funded by 2060 the OASI Trust fund, in addition to Parts 1 & 2 of this Paper, needs between \$320-\$360 billion dollars of funding per year until 2060. It follows that approximately 1 trillion dollars per year of the PLRBs would need to be issued in order to provide said funding. On average from 2016-2019 the treasury issued \$10 trillion dollars of treasuries a year. The new PLRBs would only increase overall treasury issuance by about 10%. It is important that the PLRBs remain a relatively small percentage of overall issuance in order to avoid cannibalizing other Treasury issues. Maintaining PLRB issuance at relatively conservative levels is also helpful in creating and maintaining demand for PLRBs.

### **PLRB Debt Retirement Trust Fund**

The PLRB Debt Retirement Trust would be created by legislative action and would be charged with investing the allocation received from the PLRBs such that overtime the Trust could retire the PLRB issuance at maturity.

Chart 9 depicts the projected liability of one issuance of 1 trillion dollars of PLRBs in various years versus the Value of the Debt Retirement Trust projected at various rates of return. The difference between the fixed rate accrued by the PLRBs and the expected return of the Debt Retirement Trust is called the Spread. The Spread will vary over the years. In order to make issuance of the PLRBs viable a Spread of just over 1% is required. The Trustees of the Debt Retirement Trust would determine if the projected future Spread is adequate to continue issuing future PLRBs.

The management of the Trust could be contracted similarly to the OASI Trust described in part 2 of this Paper. The main difference being that with no cash demands for 100 years the Debt Reduction Trust could be invested more aggressively.

In all three return scenarios illustrated by Chart 9, the Debt Reduction Trust has grown to a level adequate to retire the PLRB issuance well before the PLRBs mature. In these scenarios the Debt Reduction Trust not only retires the PLRB liability without tapping the Federal Budget but actually

contributes to the current Federal Budget thirty-three cents on a dollar per PLRB issuance. A win-win so to speak.

**Chart 9**

<b>2021</b>	<b>Current Value</b>	<b>Projected Value of the</b>			
	<b>PLRB Issuance</b>	<b>Debt Retirement Trust @ Various ROR</b>			
	<b>\$</b>				
<b>2021</b>	<b>1,000,000,000,000</b>				
<b>Year</b>	<b>Value of Liability</b>	<b>4.50%</b>	<b>5.00%</b>	<b>5.50%</b>	
<b>2050</b>	\$ 2,369,871,000,000	\$ 1,194,678,000,000	\$ 1,372,045,000,000	\$ 1,574,708,000,000	
<b>2075</b>	\$ 4,986,128,000,000	\$ 3,590,528,000,000	\$ 4,646,231,000,000	\$ 6,004,979,000,000	
<b>2100</b>	\$ 10,490,642,000,000	\$ 10,791,099,000,000	\$ 15,733,790,000,000	\$ 22,899,344,000,000	
<b>2121</b>	\$ 19,595,419,000,000	\$ 27,196,172,000,000	\$ 43,833,752,000,000	\$ 70,489,544,000,000	

**The General Fund**

One third of each PLRB issuance would be allocated to the general federal budget.

Holders of Zero-Coupon Bonds pay tax on the accrued interest of the bond each year thus contributing an additional amount to the federal budget each year.

**Incentives**

The most obvious question that must be answered about the PLRBs is, “Why would anyone buy a 100-year bond?”

Most individuals would be reticent to purchase such a long-dated bond – without an incentive to do so. Corporations and Foreign Governments are perpetuities who may have more interest – if balanced inducements were offered. “Balanced” means an inducement that does not harm the current budget or other wise compromise the balance sheet of the federal government.

For individuals the PLRBs might be offered with the guarantee that there would be no estate taxes on estate assets held in PLRBs. The revenue the government receives from estate taxes is a fraction (less than 1%) of the federal budget. This sort of incentive may be enough to induce the wealthy to allocate some part of their wealth to PLRBs.

Banks and Insurance Companies could be allowed to hold the PLRBs at ‘book value’ in their reserves as a Tier 1 asset. Eliminating a Mark to the Market requirement for the PLRBs would remove some risk for the financial institution and encourage them to participate in the PLRB issuances.

Foreign Governments and/or those who import related goods could be induced by lowering their tariffs by some ratio of Bonds purchased to the Tariff. For instance, a reduction of \$1 in Tariffs for every \$10 of PLRBs purchased. Tariffs like estate taxes are a small fraction of the federal budget.

There may well be other interested buyers. Mutual funds, Exchange Traded Funds and State and Private Pension funds may all consider adding PLRBs to their portfolios.

With balanced inducements and conservative issuance there should be enough of a market for the PLRBs to create issuance equal to the amount needed to fund the OASI well-funded shortfall at least in the short term. No prediction can be made long term about the availability or prudence of the PLRBs – but it is an opportunity that is available now. Ultimately any substantial positive percentage increase of OASI Assets to OASI Liabilities is a significant improvement over zero percent and deficit spending.

Chart 10 depicts the ratio of projected OASI Assets to Liabilities projected to 2060 calculated at various rates of return and at various issuance rates. In order to reach well-funded status by 2060 this Paper projects that approximately 1 trillion of PLRBs would need to be issued each year until 2060. The issuance rate is the percentage of this target.

**Chart 10**

<b>2060 Rate of Return</b>	<b>Issuance Rate</b>			
	<b>100%</b>	<b>90%</b>	<b>75%</b>	<b>50%</b>
<b>4.00%</b>	61.52%	53.10%	43.64%	32.08%
<b>4.50%</b>	71.20%	60.96%	49.84%	36.75%
<b>5.00%</b>	82.57%	70.12%	57.07%	42.25%

**Ancillary Benefits**

Taking affirmative action toward improving one’s balance sheet creates other positive outcomes whether one is a person or small business or large business – or the most powerful country in the world.

To name a few:

1. Improving our balance sheet should make credit cheaper long term.
2. Maintaining large investment pools of allocated assets will automatically create two additional large purchasers of US Government securities and Government backed mortgages.
3. Maintaining large investment pools will put the OASI Trust and the Debt Retirement Trust in the position of quasi marketing making. Having large market makers involved could have the affect of discouraging those who would attempt to manipulate the various markets for financial or political gain. Conversely the market place could become more stable for all participants with the addition of two large investment pools.

**Conclusion**

Although broken now, the OASI Trust Fund is not broken beyond repair. Corrective action must be taken quickly to avoid large scale disruptions in future years.

How would the OASI Trust look if it were well-funded now? Chart 11 illustrates a well-funded current OASI Trust Fund. The current balance in the Trust would be approximately 16 trillion dollars. For the fiscal year ended 9/30/2020 various asset allocation funds with an allocation of 20-30% stock and 70-80% bond have returned about 4%. 4% of 16 trillion dollars is \$640 billion dollars. The projected distributions for 2021 are \$996 billion dollars. That would leave \$356 billion dollars of unfunded benefit.

The implied OASI rate required to cover the difference would be 5.36% compared to 12.4% - the current rate. That would represent a 50% cut in contributions for both employees and employers without invading the federal budget and without compromising the OASI Trust Fund.

**Chart 11**

<b>What If the OASI Trust were Well-Funded Now?</b>	
Current Balance	\$ 16,000,000,000,000
Trailing Return	4%
Dollar Return	\$ 640,000,000,000
Funding Requirement	\$ 996,000,000,000
Deficit	\$ (356,000,000,000)
% of Payroll Required to Fund Deficit	5.36%
Current OASI Contribution %	12.40%

Promises made in regard to America’s current and future pensioners should be considered among the most sacred ‘We the People’ make. To renege on such promises must be considered unacceptable – especially when solutions are clearly available.

**Sources**

Any information that is not original to this Paper has been obtained and is publicly available on the ssa.gov web site or the fred.stlouisfed.org web site. Said sites provided this Paper with the basis of its’ various assumptions.

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