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## The Implications of Paying for Current Medicare

Thomas R. Saving<sup>\*</sup>

**Abstract:** Medicare is America's second largest entitlement program and this year will account for 14 percent of the Federal budget, 3.2 percent of the nation's Gross Domestic Product (GDP) and is growing rapidly so that by the end of the Medicare Trustees 75-year projection period, 2080, the Medicare alone will account for 11.0 percent of GDP and all health care will consume 42 percent of GDP. This paper estimates the effect of covering the projected Medicare deficits with either additional taxes on the working generation or additional Medicare premiums imposed on the elderly. The additional taxation would require an increase in the current 2.9 percent payroll tax to almost 20 percent by the close of the Trustees 75-year projection period. If premiums are used to cover the deficits, by the close of the Trustees 75-year projection period the elderly would be faced with Medicare premiums that would more than exhaust the total projected Social Security check for a medium earner and use up more than three-fourths of a high earner's Social Security check.

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**Keywords:** Trustees, Medicare, general revenue burden, Hospital Insurance cost rate, general revenue transfers, federal non-entitlement revenues, Medicare premiums, Social Security benefits

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# The Implications of Paying for Current Medicare

Thomas R. Saving\*

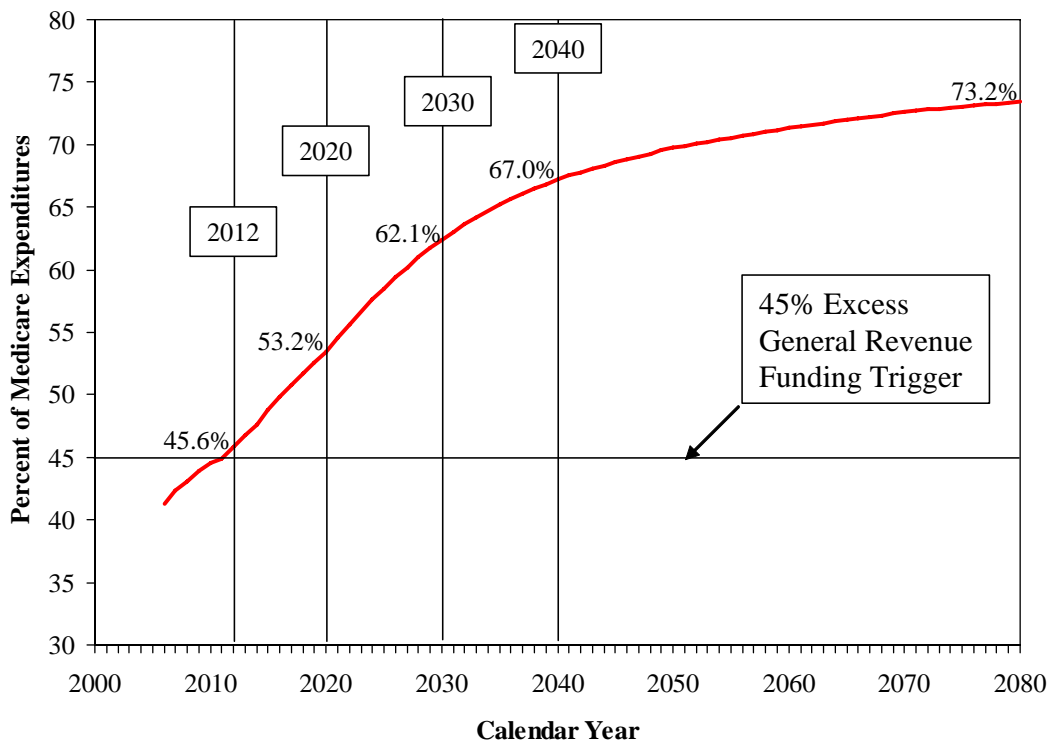
## Introduction

Medicare is America's second largest entitlement program and this year will account for 14 percent of the Federal budget, 3.2 percent of the nation's Gross Domestic Product (GDP). The program provides health care insurance for the retired population, including, since the beginning of this year, a prescription drug benefit. By the end of the Medicare Trustees 75-year projection period, 2080, the Trustees project that Medicare alone will account for 11.0 percent of GDP and all health care will consume 42 percent of GDP.

The extreme growth of Medicare is the result of two factors. First, the inescapable demographics that will increase the share of the population, especially the elderly, that is on the receiving end of Medicare benefits. The share of the US population 65 years of age and older is expected to almost double from its current level of 12 percent of the population to 20 percent of the population by 2080. Second, since 1960, per-capita health care expenditures have grown three percentage points faster than per-capita GDP. Even though the Medicare premium income from Medicare Parts B and D rise with the growth of expenditures, Medicare Part A, tax revenues rise only as fast as GDP. Thus, the share of Medicare expenditures that must be financed with general revenues is expected to continue to rise over the entire Trustees 75-year projection period.

In Figure 1 I show the Trustees projected the share of Medicare expenditures that will have to be financed using general revenues. The general revenue share is projected to rise rapidly from its current level of 41.3 percent to the 2003 Medicare Modernization Act’s critical 45 percent level that requires a determination of “excess general revenue funding” in 2012, just six years from now.<sup>1</sup> The required transfers will continue to rise reaching 53 percent in 2020, 63 percent in 2030, and 67 percent in 2040. Finally, at the close of the Trustees 75-year projection period, funding current Medicare will require general revenue transfers for more than 73 percent of all expenditures.

**Figure 1**  
**Medicare’s General Revenue Burden**



Source: 2006 Medicare Trustees Report

<sup>1</sup> The 2003 Medicare Modernization Act set the trigger for informing the President of potential program insolvency at 45 percent. Specifically, if projected Medicare expenditures are expected to require general revenue transfers of more than 45 percent of total expenditures within a seven-year horizon for two consecutive years, the Trustees are required to send an alert to the President and the President is required to produce proposals to Congress to rectify the problem.

It is clear from the implications of current Medicare's general revenue requirements that Medicare as it is currently structured cannot continue. The implications of the projected transfer for the remainder of government expenditures imply that significant tax increases or benefits cuts will be required to pay for the level of benefits projected by the Trustees. To get a feel for the magnitude of the problem, I present here the revenue that must be raised if no benefit cuts are made. My approach throughout will be to assume that the Medicare expenditures projected by the Trustees will in fact happen so that the resources implied by these expenditures will be found. Since we cannot expect other nations to help us we must either place additional taxation on workers or force the elderly to pay additional premiums.

### **Making the Young Pay: The Tax Solution**

#### *Balancing the Medicare Part A Budget with Payroll Taxation*

Currently, 94 percent of Medicare Part A revenues come from the 2.9% payroll tax. The remainder of Part A revenue comes from Medicare's share of the taxation of Social Security benefits and premiums from buyers of Medicare.<sup>2</sup> Since Medicare Part A revenue comes primarily from the payroll tax, I begin by calculating the payroll tax rate that would balance the Medicare Part A budget.

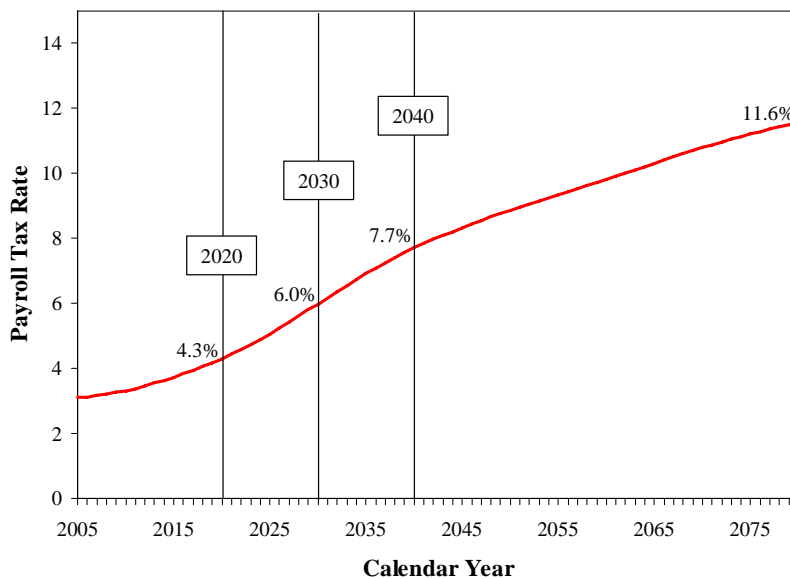
Based on the 2006 Medicare Trustees Report and accounting for both the revenue from premiums and the taxation of Social Security benefits, I show in Figure

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<sup>2</sup> The law provides for individuals 65 years of age and older, who do not have the required number of quarters to be eligible for Medicare, the opportunity to purchase Medicare. In addition, the 1983 Social Security reform provided for the taxation of up to 50% of Social Security benefits if recipient income exceeded legislated levels, with the proceeds going to Social Security. In 1992, up to 80% of Social Security benefits became subject to income taxation with the revenues collected from the taxation of Social Security benefits above the 50% level dedicated to Medicare Part A. These revenues can be expected to grow as more retirees become subject to Social Security benefit taxation.

2 the payroll tax rate required to balance the Medicare Part A budget. The required payroll tax immediately begins a slow rise that accelerates in the middle of the next decade as the front edge of the baby boomers reach age 65. In 2020, the HI payroll tax rate will have to rise from its current 2.9% level to 4.3% and by 2030, the required HI payroll tax will be at 6.0%, more than double its current level. By the end of the 75-year period, 2080, the required payroll tax rate will be 11.6%.<sup>3</sup>

**Figure 2**  
**Payroll Tax Rate Required to Balance the Medicare Part A Budget**



Source: Figure II.E1 2006 Medicare Trustees Report

*Balancing the Medicare Parts B and D Budgets with General Taxation*

Medicare Parts B and D are financed by a combination of premium payments from participants and general revenue transfers. The current legislated level of Medicare Part B premiums is set at 25 percent of per-capita cost for the elderly and

<sup>3</sup> Bear in mind that payroll taxes are pre-income-tax dollars so that the payroll tax payments themselves are subject to income taxation.

20 percent for disabled participants. For Medicare Part D, premiums are expected to generate 22.8 percent of total expenditures.

In 2005, general revenue transfers covered 77.7 percent of total Medicare Part B expenditures, including the disabled. The Medicare Modernization Act of 2003 (MMA), included some means testing for Medicare Part B premiums so that when fully implemented the means testing is expected to reduce the general revenue share of Medicare Part B cost to 74.6 percent from the current long run legislated level of 75 percent.<sup>4</sup>

In Figure 3 I show the projected path of the general revenue transfers required to pay for Medicare Parts B and D after accounting for premiums paid by participants. To show the effect of the general revenue transfers to Medicare on the federal budget, these general revenue transfers are expressed as a share of non-entitlement federal tax receipts.

Beginning with Medicare Part B, general revenue transfers accounted for 7.8 percent of non-entitlement federal income. By 2020, funding Medicare Part B will require 10.7 percent of non-entitlement federal income, by 2030, 14.5 percent, and by 2040, 17.7 percent. At the close of the Trustees 75-year projection period, 2080, Medicare Part B transfers from general revenue will consume more than 24 percent of non-entitlement federal revenues.<sup>5</sup>

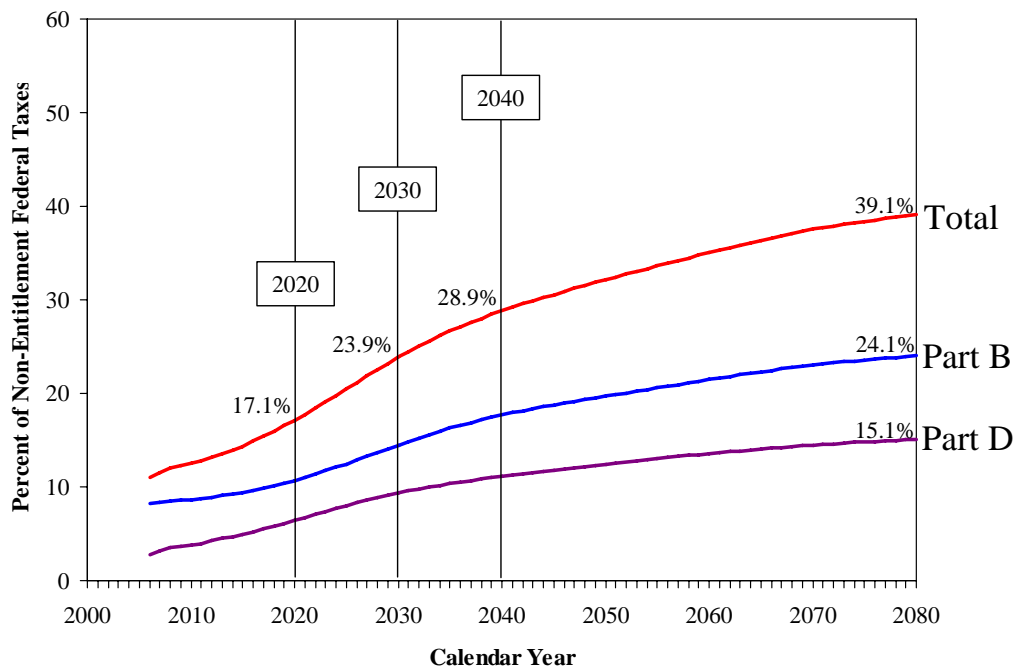
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<sup>4</sup> The 2004 Medicare Modernization Act introduced a higher “income-related” premium for individuals whose modified adjusted gross income exceeds a specified threshold, set for 2007 at \$80,000 for individual returns and \$160,000 for joint returns and then indexed to inflation. Individuals exceeding the threshold will pay premiums covering 35, 50, 65 or 80 percent of average program cost for aged beneficiaries, depending on their income level.

<sup>5</sup> For these calculations we treat as revenue all premium payments. We note here however, that approximately 12 percent of Part B premium revenues represent the federal share of Part B premiums paid by the states for those citizens on Medicaid. Thus, our estimated general revenue transfers are a lower bound on the required level of such transfers.

The full Medicare Part D prescription drug benefits began in 2006. The share of non-entitlement federal tax receipts required to fund Medicare Part D is projected to rise rapidly throughout the Trustees full 75-year projection period. In 2020, the Trustees project that Medicare Part D will require general revenue transfers equal to 6.4 percent of non-entitlement federal tax receipts, by 2030, 9.4 percent, and by 2040, 11.2 percent. At the end of the Trustees 75-year projection period, Medicare Part D will require more than 15 percent of non-entitlement federal revenues.

**Figure 3**  
**Medicare Parts B and D Required Transfers**  
*% Non-Entitlement Federal Taxes*



Source: 2006 Medicare Trustees Report and author's estimates. Non-entitlement Federal Revenues are estimated to be 11.80% of GDP, the 25-year average.

Taken together, by 2020, Medicare Parts B and D together will require more than 17 percent of all non-entitlement federal revenues, by 2030, almost 24 percent, and by 2040, almost 29 percent of non-entitlement federal revenues. At the close of

the 75-year projection period paying for projected Medicare Parts B and D benefits will require almost 40 percent of all non-entitlement federal revenues.

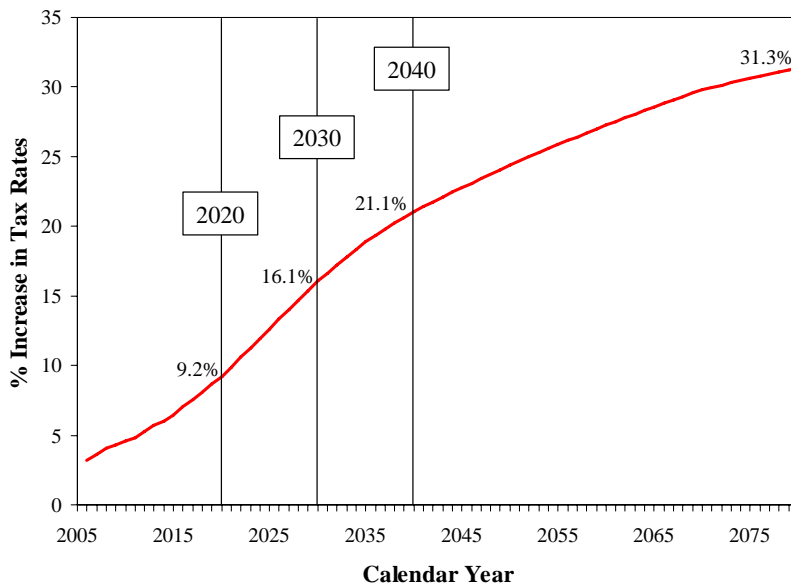
If the only change in taxation that occurs is the increased payroll taxes required to balance the Medicare Part A budget, then non-Medicare federal expenditures as a share of the economy will have to fall by roughly 40 percent. Further, if payroll tax increases are not used to cover the Medicare Part A deficits, and general revenues are used to make up the Medicare Part A deficits, more than two-thirds of non-entitlement federal revenues will be required to cover all Medicare. Such transfers would require a two-thirds reduction in non-Medicare federal expenditures.

Since a two-thirds reduction in the role of the federal government outside Medicare seems unlikely, here I proceed by assuming that the non-entitlement role of the federal government should remain at its current share of the economy. Based on the projections of GDP from the 2006 Medicare Trustees Report, I calculate the non-entitlement federal revenues that would be required to maintain non-Medicare federal programs. The sum of the revenues required to maintain federal non-Medicare programs and the projected general revenue transfers to Medicare becomes my estimate of the level of non-entitlement federal revenues that will both maintain the non-Medicare federal government at its current share of the economy and cover projected Medicare shortfalls.

Since Medicare Part is currently financed with payroll taxation, I begin by assuming that the projected Medicare Part A deficits are financed by increases in the HI payroll tax rate. Thus, only the Medicare Parts B and D deficits must be financed

through increases in federal non-entitlement revenues. The ratio of estimated required non-entitlement federal revenues to the projected level of non-entitlement federal revenues, yields the percent change in tax revenues that would keep the federal government at its current share of the economy and pay projected Medicare Parts B and D benefits. Figure 4 shows the projected percentage increase in average federal tax rates that would be required to maintain non-entitlement federal government at its current share of the economy, and provide the transfers necessary to pay projected Medicare Parts B and D benefits.

**Figure 4**  
**Average Tax Rate Increase Required to Pay for Projected Medicare Parts B and D and Maintain Non-Entitlement Expenditures**  
*Part A Deficits Financed with Payroll Taxes*



Taking the year 2006 as the base, the figures shows the percentage increase in non-payroll tax federal revenues required to pay for Medicare Parts B and D deficits and maintain non-entitlement federal spending as a share of the economy. The required tax increases are significant so that in 2020, federal non-entitlement revenues will have to rise by more than 9 percent to cover the projected Medicare

Parts B and D shortfalls and maintain the federal government's share of GDP, by 2030, more than 16 percent, and by 2040, more than 21 percent. Finally, by the end of the Trustees 75-year projection period, federal non-entitlement revenues must rise by more than 31 percent.

*The Pure Taxation Solution to Paying for All Projected Medicare Benefits*

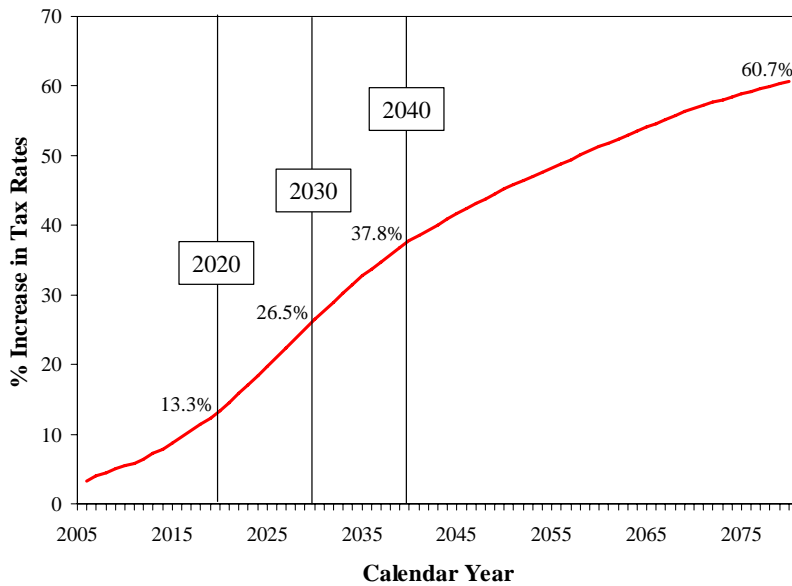
The previous section estimated the tax increases required to pay for future Medicare assuming that Medicare Part A deficits were financed by increases in the HI payroll tax. In order to make the total tax requirements of funding Medicare's future deficits more transparent, I do away with that assumption. Rather, in this exercise I assume that the HI payroll tax rate remains at its current level of 2.9 percent of payroll. Then, letting all projected Medicare deficits, including the projected Medicare Part A deficit, be financed through general revenue transfers yields complete picture of the tax impact of the projected deficits inherent in current Medicare.

Figure 5 shows the percent increase in federal non-entitlement revenues that would be required to fund all projected Medicare deficits while at the same time allowing the non-elderly entitlement federal government to remain at its 2006 share of the economy. For example, the Medicare Part A deficit's share of federal non-entitlement revenues, at the current payroll tax rate, will rise from essentially zero to 4.1 percent between now and 2020. During the same period, the share of federal non-entitlement tax revenue consumed by Medicare Parts B and D will rise from 11.1 percent to 17.1 percent, resulting in a 2020 total transfer to Medicare 21.2 percent of federal non-entitlement revenues. Thus, by 2020 the average federal tax rate will

have to increase by 13.3 percent if other federal expenditures are to remain at their current share of the economy.

By way of comparison, over the past twenty-five years, revenue from personal income taxation has averaged 14.38 percent of personal income so that the required 13.3 percent increase in personal income taxation would increase the average taxation of personal income from 14.38 percent to 16.29 percent. By 2030, the average taxation of personal income would have to be 18.19 percent and by 2040, 19.8 percent. Finally, at the end of the 75-year Trustees estimation period, the average taxation of personal income would have risen by just more than 60 percent 23.11 percent.

**Figure 5**  
**Average Tax Rate Increase Required to Pay for**  
**all Projected Medicare Deficits and Maintain Non-Entitlement Expenditures**  
*Part A Payroll Tax Rate Remains at 2.9%*

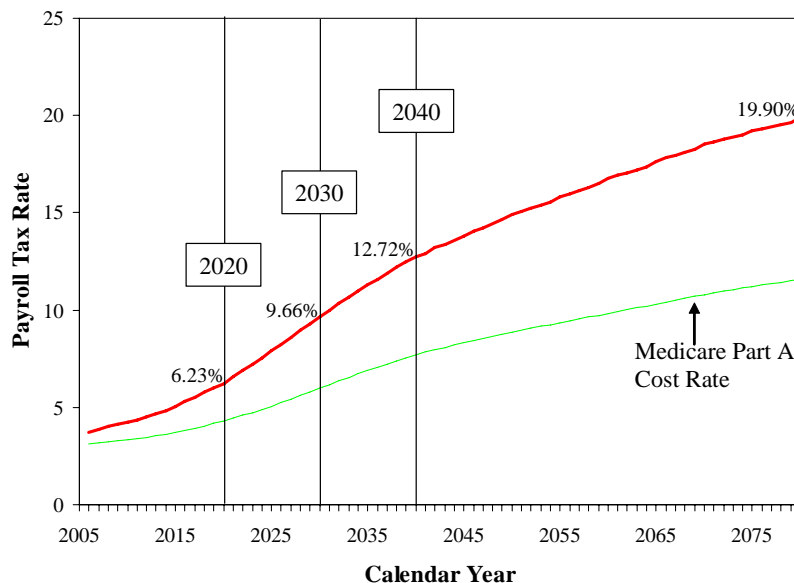


An alternative way to express the magnitude of the tax changes necessary to fund the projected cost of Current Medicare, is in terms of payroll taxes. Figure 6

shows the payroll tax rates that would be required to maintain the share that federal non-entitlement spending is of the economy and make the necessary transfers to pay the projected cost of Medicare Parts A, B and D. The upper line in the figure shows the total payroll tax rate required to fund all projected Medicare deficits at current premium and tax rates. The lower line shows the Trustees projected Medicare Part A cost rate. The widening difference between the payroll taxes required to fund Medicare Part A, and the payroll tax rate required to fund all Medicare is a result of the rising share Medicare Parts B and D in total Medicare expenditures.

The payroll tax rate required to fund all projected Medicare deficits will, by 2020, be 6.23 percent, more than double the current 2.9 percent rate. By 2030, the Medicare payroll tax rate will have to be 9.66 percent, more than three times the current rate, and in 2040, 12.66 percent, more than four times the current rate. Finally, at the close of the Trustees' 75-year projection period, the required Medicare payroll tax rate would be 19.9 percent, almost seven times the current Medicare tax rate.

**Figure 6**  
**The Payroll Tax Required to Pay for Projected Current Medicare Deficits**  
**and Maintain Non-Entitlement Expenditure Share of GDP**



## **Making the Elderly Pay: The Premium Solution**

It is clear that a one-sided solution to solving the funding issues of the pending Medicare deficits that imposes all the cost on the young through taxation would require tax rates that are most likely unsustainable. Here I investigate a one-sided solution that imposes all the cost on the elderly. Rather than making the young pay through taxation, I show the premiums that would be required if we make the elderly pay. As an aside, I will discuss the impact of either solution on the generational distribution of who pays, the retired generation or the working generation.

### *Increasing Medicare Parts B and D Premium to Pay for Projected Deficits*

As I did in the discussion of the level of taxation required to fund projected Medicare, the premium calculations are designed to leave the non-elderly federal budget unaffected by Medicare deficits. I will treat each part of Medicare separately and begin with Medicare Part B. To leave the non-elderly federal budget unaffected by future Medicare Part B, I assume that the general revenue transfer to Medicare Part B remains fixed at its 2006 share of GDP.<sup>6</sup> Medicare Part B premiums are the same across all aged beneficiaries and are set in the Fall of each year at 25 percent of expected per-capita Part B expenditures.<sup>7</sup> A further complication comes from the Medicare Modernization Act's introduction of limited means testing that is projected

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<sup>6</sup> Thus, the general revenue transfer is allowed to grow at the same rate as GDP. Because health care growth exceeds GDP growth, the required transfers grow faster than GDP.

<sup>7</sup> There is the small matter of the Medicare Part B Trust Fund. The Trust Fund is managed through the level of premiums and exists to allow for the payment of benefits should the forecast of expenditures be well below actual costs.

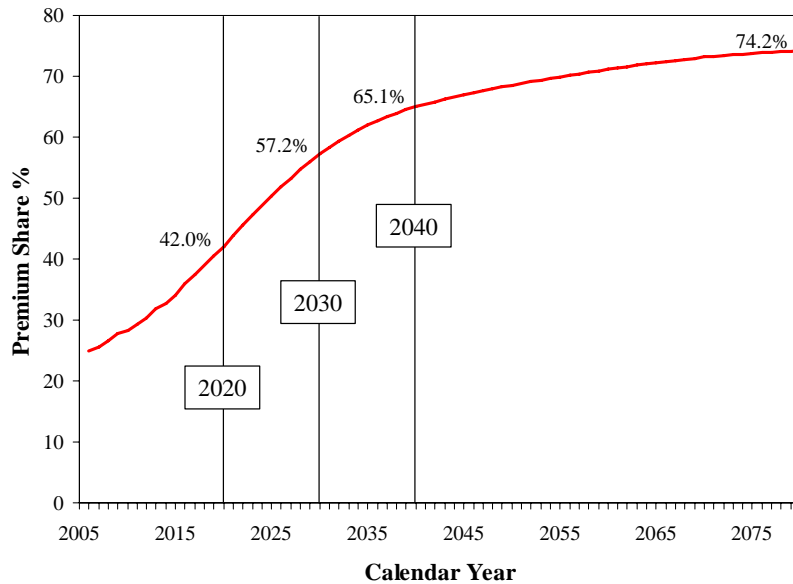
to provide a small increase in the revenue contribution of Medicare Part B premiums.<sup>8</sup>

Figure 7 shows the premiums that must be imposed to fund the Medicare Part B deficits projected by the Trustees when we fix the Medicare Part B general revenue transfer as a share of GDP at its 2006 level. The required level of premiums rise rapidly from their 2006 level of 25 percent of the per-capita cost of Medicare Part B. By 2020, the share of all Medicare Part B expenditures paid by beneficiaries in the form of premiums will reach to 42 percent of expenditures and the general revenue financing of Medicare Part B will in 2020 have fallen from its current share of 75 percent to 58 percent. Beneficiaries will be paying for more than one-half, 57.2 percent, of all Medicare Part B expenditures in 2030, and in 2040, beneficiaries will be paying for almost two-thirds, 65.1 percent, of Medicare Part B expenditures. Finally, at the end of the Trustees 75-year projection period, Medicare Part B beneficiaries will be paying for almost three-fourths, 74.2 percent, of Medicare Part B expenditures, essentially reversing the current-law participant, general revenue shares.

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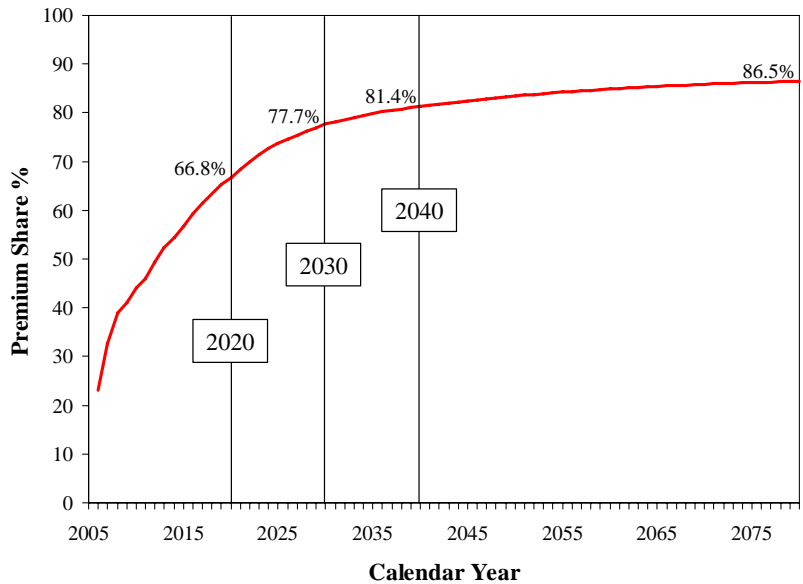
<sup>8</sup> The 2004 MMA introduced a limited means testing of premiums. However, the level of the means testing threshold, \$80,000 adjusted gross income for an individual and \$160,000 adjusted gross income for a couple, the impact on the share of Part B expenditures covered by premiums is projected to rise only slightly from its current level of 25 percent.

**Figure 7**  
**Premiums as a Share of Total Medicare Part B Expenditures**  
*Part B Transfer Share Non-Entitlement Federal Revenues Fixed*



Because the full implementation of the Medicare Part D prescription drug benefit is in its first year, the future of this program is still highly uncertain. However, for purposes of the required premium estimation, I will treat the estimates presented in the 2006 Medicare Trustees Report as having the same level of reliability as the Trustees estimates of Medicare Part B, which has a long history. Figure 8 shows the Medicare Part D premium required when we limit the general revenue transfer to Medicare Part D as a share of GDP to its 2006 level as projected by the Trustees.

**Figure 8**  
**Premiums as a Share of Medicare Part D Expenditures**  
*Part D Transfer Share of Non-Entitlement Federal Revenues Fixed*



Given that we have no history for the Medicare Part D premium share of Medicare Part D expenditures I use the Trustees estimate that by 2015 these premiums are expected to account for 22.8 percent of expenditures, as my 2006 starting point.<sup>9</sup> The rise in the premium share of total projected Medicare Part D expenditures is even more rapid than was the case for Medicare Part B. By 2020, the premium financed share of Medicare Part D expenditures account for two-thirds, 66.8 percent, by 2030, premiums would account for more than three-fourths, 77.7 percent, and by 2040, more than four-fifths, 81.4 percent. Finally, at the end of the

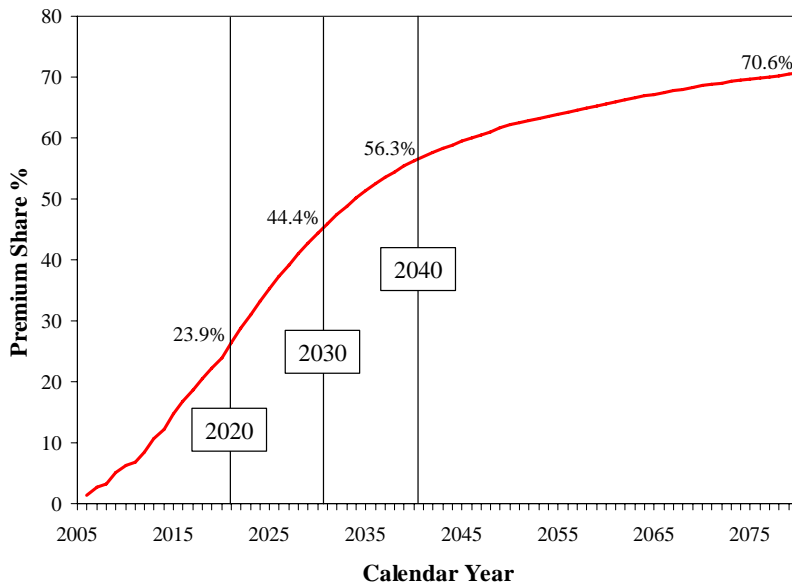
<sup>9</sup> The premium revenue for Medicare Part D comes from two sources: premiums from participants who are not eligible for Medicaid. For those eligible for Medicaid, the dual eligibles, the State's are expected to return to the federal treasury some or all of the savings they incur because of the federal subsidy to these beneficiaries. The projections we have assume that these transfers actually occur. Also, our projections fail to account for the fact that the transfers from the States to the federal government may imply a tax burden on the citizens of the various States.

Trustees 75-year projection period, 86.5 percent of all Medicare Part D expenditures will be paid by beneficiaries.

*Using Premiums to Pay for Projected Medicare Part A Deficits*

A full transfer of the cost of future deficits of Medicare to the elderly requires that I estimate the level of premiums that would be necessary to pay for the projected Medicare Part A deficits. Figure 9 shows the share of projected Medicare Part A expenditures that would be paid with premiums if the current Medicare payroll tax rate remains at its current 2.9 percent level. Medicare Part A was essentially self-supporting in 2005, so premiums would be zero. However, beginning in 2006, the Trustees project that Medicare Part A will be in deficit. Since there have been no general revenue transfers to Medicare Part A, I have estimated the Medicare Part premiums at levels to cover all future projected deficits.

**Figure 9**  
**Premiums as a Share of Medicare Part A Expenditures**  
*Beneficiaries Pay For All Deficits*



Because Medicare Part A goes into deficit immediately, premiums would be positive in 2006 and would rise rapidly as the Medicare Part A deficits grow. By 2020, Medicare Part A premiums would account for almost one-fourth of Medicare Part A expenditures, by 2030, more than 40%, and by 2040 well more than one-half of all Medicare Part A expenditures. Finally, at the end of the Trustees 75-year projection period, Medicare Part A premiums would account for more than 70 percent of Medicare Part A expenditures.

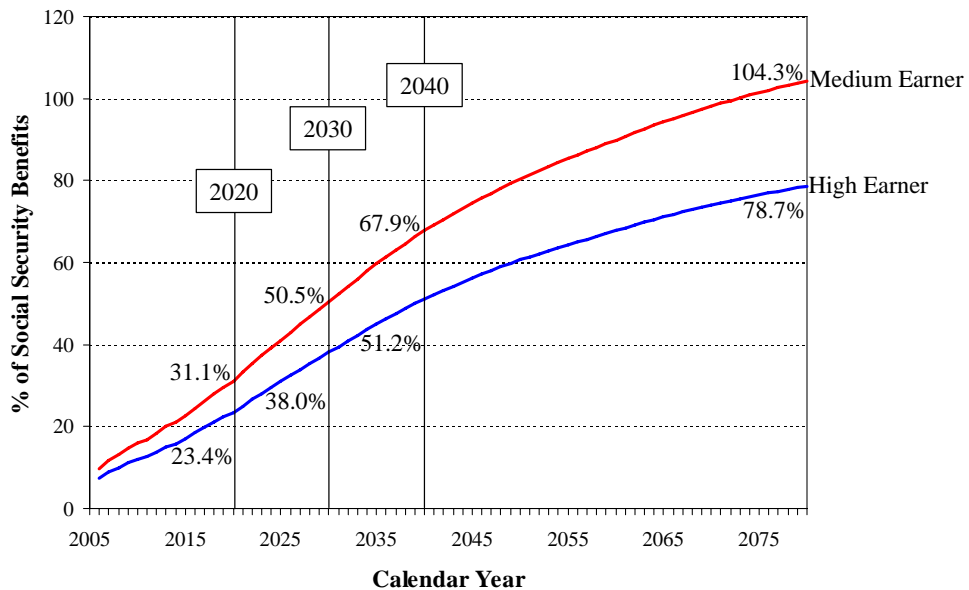
#### *The Total Premium Burden on Elderly Income*

The shifting of the burden of funding the projected Medicare deficits from the young to the elderly, results in the elderly paying for from 70 to 86 percent of all Medicare Parts A, B and D expenditures by the end of the 75-year projection period. The level of premiums required will place a substantial burden on elderly income. One way to think about the future income of the elderly is the level of Social Security benefits as projected by the Social Security Trustees. Figure 10 shows the total Medicare premium burden as a share of projected Social Security benefits for scaled medium and high career earners who retire at the normal retirement age, as specified by the current Social Security law.

From the 2006 Medicare Trustees Report, the Trustees estimate current Medicare premiums will consume 7.4 and 9.8 percent respectively of the High and Medium earners Social Security benefit in 2006. If the general revenue transfers to Medicare are fixed at their projected 2006 share of GDP, the required increases in premiums to cover the projected revenue shortfalls for all parts of Medicare as a share of retirees Social Security benefit checks will rise rapidly. These premiums

will consume 23.4 of a High earners Social Security benefit and 31.1 percent of a Medium earners benefit check as early as 2020. By 2030 these shares will have risen to 38.0 percent and 50.5 percent respectively. Then by 2040, the required premiums will consume more than one-half, 51.2 percent, of a High earners Social Security benefit and more than two-thirds, 67.9 percent, of a Medium earners Social Security benefit. Finally, at the end of the Trustees 75-year projection period, the required Medicare premiums will consume more than three-fourths of High earner Social Security benefits and more than 100 percent of Medium earner benefits.

**Figure 10**  
**Parts A, B, D Premiums as a Share of Projected Social Security Benefits**  
*Medicare Transfer is a Constant Share of Federal Non-Entitlement Revenues*  
*Part A Payroll Taxes Remain at Current Level*



Transfer fixed 2006 share of GDP from Table III.A2 2006 Medicare Trustees Report.

## **Summary**

As the above estimates make clear the solution to financing the projected Medicare deficits will require a combination of taxes on the younger generation, premium payments by the older generation, and perhaps even expenditure cuts by Congress. Requiring the young to cover the looming deficits through increased taxation implies an almost doubling of the total tax burden from its current level of 14.4 percent of personal income to 23.1 percent. Expressed in terms of payroll, the tax rate at the close of the Trustees 75-year projection period must be almost 20 percent, a seven-fold increase from the current 2.9 percent HI payroll tax rate. When one considers that the Social Security Trustees estimates that the tax rate required to pay projected Social Security benefits in 2080 will be 18.6 percent of payroll, it is clear that such tax rates are beyond any real possibility.

By the same token, requiring the elderly to bear the entire burden required premiums that are beyond any real expectation. If the level of general revenue transfers to Medicare are fixed at their current share of GDP and beneficiaries are required to pick up the difference, beneficiaries would ultimately be paying for more than 70 percent of total expenditures. Premiums at the level required would consume most of a Social Security recipient's benefit check, more than three-fourths of a high earner's check and more than 100 percent of a medium earner's check.

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Table 2.3 Receipts by Source as a Percentage of GDP 1934-2011, in Budget of the United States Government, Fiscal Year 2007, available at, <http://www.whitehouse.gov/omb/budget/fy2007/hist.html>