

Sustainability of Health Care and Pensions

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Nicola C. Salerno
salerno@reforming.it

<<The net present value of future increases in health care and pension spending is more than ten times larger than the increase in public debt due to the crisis. Any fiscal consolidation strategy must involve reforms in both these areas. This includes Europe, where official projections largely underestimate health care spending trends. Given the magnitude of the spending increases involved, early action in these areas will be much more conducive to increased credibility than fiscal front-loading [...]. For health care spending, the outlook is much more challenging [than for pensions]. [...] Studies indicate that non-demographic factors - most notably technology, but also income growth and the expansion of insurance - explain the vast majority of spending increases in health [...]. Altogether, in the G-7 economies, the key policy challenge over the coming decades will be to make health care systems sustainable by containing costs as well as creating fiscal space in other areas so as to adapt to societal preferences and needs for a greater share of ageing-related spending [...]>>

-IMF, Ten Commandments for Fiscal Adjustment in Advanced Economies-

1. Introduction

In an era of crisis, projections on the evolution of age related expenditure for health and pensions are of critical importance to design, support, and implement policies, which can succeed in conciliating fiscal consolidation and growth.

In the EU, medium and long-term projections on age-related expenditures for pensions and health inform the process of budgetary consolidation implemented to sustain the Monetary Union.

Important architectural differences among Member States notwithstanding, two challenges will produce dramatic consequences on the sustainability of public finances and welfare systems in Europe.

First, the decrease of fertility and mortality rates has already induced an intense ageing process, which is not compensated by immigration flows. Second, the reduction of the share of active population has amplified the burden on income and growth within Pay-as-you-go systems (*PayGo*), in which, at each point in time, those who work pay health and pensions for the non-active elderly through taxation and social contributions.

2. Long term projections for pensions and health expenditure

In the late Nineties, a specific working group (*Awg: Ageing Working Group*) has been set up at the EU level to develop medium and long-term projections for aged-related expenditure. The fourth edition of *Awg Report* has been released in May 2012.

The *Awg Report* covers in fact all the main items financed by member States through *PayGo*: pensions, acute health care, long-term care (Ltc), education, and unemployment benefits.

The *Awg* projections show that, while pensions are the main component of welfare expenditure and so will be in future decades, health care expenditure has the highest expected rate of growth.

Projections of health care expenditure are uncertain, since they are influenced by a wide range of drivers: demography; technical change; individual preferences and income elasticity; organizational models and labor productivity in health services; public policies on cost containment and on copayment solutions.

While the so called “reference scenario” for health care expenditure projection, which only considers the demographic driver, corresponds to a long term increase of public expenditure for health of about 2 percentage points over Gdp, according to the “technological scenarios” developed by the FMI and the OECD, which take into account the historical values for income elasticity and the non demographic factors, health care expenditure is projected to double or more than double its incidence on Gdp.

The 2012 *Awg* report includes, for the first time, a “non demo drivers” scenario in which, for both acute care and Ltc, the elasticity with respect to Gdp is equal to 1,3 in the first year, then gradually converging to 1 at the end of the projection horizon. Such an assumption corresponds to introduce an intermediate scenario, which generates projected values that are quite close to those of the “technological” scenarios.

3. The sustainability assessment in Stability Programs

In their annual assessment of public finances sustainability, the *Stability Programs* of EU Partners adopt the “*Awg reference scenario*”, centered on the demographic driver.

As a consequence, both Stability and Convergence Programs systematically underestimate the expected rate of growth of health care expenditure.

Stability Programs are intended to sustain a better coordination of policy agenda among Partners. At present, the lack of realism of health care expenditure projections is the most serious source of bias in the Stability Programs of European Partners.

Besides affecting the approval of Stability Programs presented by Partners to the European Commission and to the European Council, the expected growth rate of health care expenditure produces significant consequences on budget decisions at the National level. First, that indicator becomes a reference and a target for political economy decisions, fixing the budget constraint at the Country level. Second, it conveys a representation of the future configuration of the systems, influencing the debate on the sustainability of the status quo and the political agenda.

4. The (un)sustainability of the status quo

If one computes how much, today and in coming decades, each worker has to pay, through income taxation or social contribution, to finance pensions and health care for the elderly, a challenge emerges for all Partners even under the conservative assumptions of the demographic scenario.

Data for Italy, France, Germany, and the Uk are presented in the Annex.

When health care projections are designed to take into account also the extra-demo drivers, the burden on active citizens and workers is expected to grow, by 2030, to more than 50% Gdp per capita in Germany and to values higher than 50 % of Gdp per capita in France and in Italy. Such a burden would induce unsustainable, distortive, and depressive effects on labor supply and demand, as well as on labor productivity and investment. When a large fraction of labor earnings is allocated to finance provisions that will not be fully appropriated by the worker, both the supply of human capital and labor productivity lower for any given amount of gross wage. Lower levels of human capital and labor productivity then depress the marginal utility of investment, lowering the capital intensity of the economy.

In addition, an over reliance on *PayGo* to fund pensions and health care expenditure would prevent an adequate development of the components of the welfare system that must be funded through general taxation and social contributions (family, children, unemployment-reemployment ...) to sustain redistribution and growth.

5. Towards a multi pillar system

The pressure of *PayGo* on incomes and growth cannot be reduced, per se, through the development of complementary private insurance coverage. Insurance contracts are based on pooling, and replicate, on a smaller scale, what pay-as-you-go schemes do in the public: participants pay, as-they-go according the contract clauses, year by year to cover the expenditure for those who need provisions and benefits. Though pooling schemes may be sustained and reinforced by mathematical reserves invested on the markets, they are quite like pay-as-you-go schemes and they face the very same challenges. Pay-as-you-go and pooling schemes are similar, because they both consume, year-by-year, resources produced by the economic system in that year. For this reason, they cannot rebalance each other. To rebalance the excess of pay-as-you-go for financing welfare expenditure, a debate should be promoted on how to achieve a more balanced structure, which combines *PayGo* and real accumulation plans.

Concluding remarks

A few points of debate and priorities can be outlined:

1. Increase the realism of pension and health care expenditure projections incorporated in the annual Stability Programs of EU Partners, developing adequate sensitivity analysis around the central scenario. Currently, health care expenditure projections are underestimated, since they do not incorporate the effects of non demographic drivers;
2. Strengthen the link between medium-long term projections and the economic policy guidelines that EU Partners convene to indicate at the end of the discussion session of Stability Programs;
3. Strengthen the link between the policy guidelines at European level and the annual budget law of each Partner;
4. Promote a debate on the future of the European Social Market Economy, with a specific focus on the consequences of the status quo for States and individuals, as well as for economic growth and fiscal consolidation;
5. Promote a debate on how to achieve a balance between *PayGo* and capitalized funds to finance age related expenditures for pensions and health. Such an effort could contribute to set up a common ground to coordinate the structure of welfare systems among Member States, with positive effects on the mobility of human and financial capital.

References

Ageing Working Group (2012), *"The 2012 Ageing Report - Economic and budgetary projections for the 27 EU Member States (2010-2060)"*, EU Commission, Brussels.

European Commission (2012), *"Fiscal Sustainability Report"*, European Economy n.8-2012

International Monetary Fund (2010), *"Ten Commandments for Fiscal Adjustment in Advanced Economies"*, IMF, Washington DC.

International Monetary Fund (2010), *"Long-Term Trends in Public Finances in the G-7 Economies"*, IMF, Washington DC.

Oecd (2006), *"Projecting OECD health care and long term care expenditures: what are the main drivers?"*, OECD, Paris.

Stability Programs presented by Eu Partners (various editions)

Annex 1:***Health Care and Pension Expenditure in Stability and Convergence Programs***

In 2010, Italy has the highest incidence for pensions (more than 15% over Gdp). Total public expenditure for pensions and health counts for 23,6% of Gdp, with a burden of pay-as-you-go on the single worker equal to 64% of Gdp per capita. In France, pensions counts for 13,5% of Gdp, and the sum of pension and health care expenditure amounts to more than 23% of Gdp. The burden per worker overcomes 57% of Gdp per capita. In Germany, the incidence of pensions is lower and amounts to 10,4% of Gdp. Overall the expenditure for pensions and health care amounts to 18% of Gdp, with a burden of pay-as-you-go on the single worker close to 45% of Gdp per capita.

Finally in the UK 5,7% of Gdp dedicated to pensions. Pension and Health Care public expenditure amounts to 15,2% of Gdp, with a burden of PayGo on the single worker of almost 35% of Gdp per capita.

| Stability Program 2013 | | | | | | | |
|---|-------|---------------|---------------|---------------|---------------|---------------|-------------------|
| | % GDP | 2010 | 2015 | 2020 | 2025 | 2030 | ... 2060 |
| Health Care and Ltc provided by NHS | | 7.3 | 6.9 | 6.8 | 7.0 | 7.2 | ... 8.0 |
| Pensions | | 15.3 | 16.1 | 15.6 | 15.2 | 15.2 | ... 14.6 |
| Ltc by other public providers | | 1.0 | 1.0 | 1.0 | 1.0 | 1.1 | ... 1.6 |
| var SP 2013 / SP 2012 | | 0.0 | 0.0 | -0.2 | -0.2 | -0.2 | ... -0.2 |
| var SP 2013 / SP 2012 | | 0.0 | 0.5 | 0.4 | 0.4 | 0.4 | ... 0.2 |
| var SP 2013 / SP 2012 | | 0.0 | 0.0 | -0.1 | -0.1 | 0.0 | ... -0.1 |
| Gdp (Euro/mln) | | 1,551,886 | 1,544,772 | 1,678,964 | 1,851,892 | 2,012,747 | ... 2,994,696 |
| Population | | 60,626,442 | 61,787,648 | 62,876,781 | 63,737,079 | 64,491,289 | ... 64,989,319 |
| Per-capita Gdp (Euro) | | 25,597,510.74 | 25,001,313.85 | 26,702,451.05 | 29,055,179.14 | 31,209,601.79 | ... 46,079,819.06 |
| Aged 20-64 | | 36,877,066 | 37,029,609 | 37,324,687 | 37,370,095 | 36,902,079 | ... 33,389,736 |
| Active people aged 20-64 | | 24,523,249 | 25,439,341 | 25,791,359 | 25,710,625 | 25,425,532 | ... 23,372,815 |
| Employed aged 20-64 | | 22,463,296 | 22,488,378 | 23,392,762 | 23,833,750 | 23,671,171 | ... 21,783,464 |
| Pay-as-you-go Burden | | | | | | | |
| Burden per active to finance 1. and 3. (Euro) | | 5,252,425.51 | 4,797,176.79 | 5,077,638.85 | 5,762,262.79 | 6,570,483.38 | ... 12,300,222.26 |
| Burden per worker to finance 1. and 3. (Euro) | | 5,734,088.98 | 5,426,670.57 | 5,598,278.78 | 6,216,033.22 | 7,057,447.24 | ... 13,197,663.37 |
| Burden per active to finance 1., 2. and 3. (Euro) | | 14,934,607.47 | 14,573,701.63 | 15,232,916.55 | 16,710,562.09 | 18,603,175.83 | ... 31,006,810.28 |
| Burden per worker to finance 1., 2. and 3. (Euro) | | 16,304,156.62 | 16,486,087.82 | 16,794,836.33 | 18,026,496.33 | 19,981,928.93 | ... 33,269,109.74 |
| Burden per active to finance 1. and 3. / per-capita Gdp | | 20.52% | 19.19% | 19.02% | 19.83% | 21.05% | ... 26.69% |
| Burden per worker to finance 1. and 3. / per-capita Gdp | | 22.40% | 21.71% | 20.97% | 21.39% | 22.61% | ... 28.64% |
| Burden per active to finance 1., 2. and 3. / pe-capita Gdp | | 58.34% | 58.29% | 57.05% | 57.51% | 59.61% | ... 67.29% |
| Burden per worker to finance 1., 2. and 3. / per-capita Gdp | | 63.69% | 65.94% | 62.90% | 62.04% | 64.02% | ... 72.20% |

Our calculations on Stability Program of Italy, May 2013

For demo variables, see projections by Eurostat, convergence scenario (online)

Gdp is in constant prices 2010

Until 2014 Gdp rates are the most recent consensus estimates

Gdp rates of growth beyond 2014 are linear interpolations of data reported in the Stability Program for 2015, 2020, 2025, 2030, 2035 ... 2060

| Stability Program 2013 | | | | | | | | |
|---|-------|---------------|---------------|---------------|---------------|---------------|-----|---------------|
| | % GDP | 2010 | 2015 | 2020 | 2025 | 2030 | ... | 2060 |
| Health Care | | 8.0 | 8.3 | 8.5 | | 8.9 | ... | 9.4 |
| Pensions | | 14.6 | 14.4 | 14.4 | | 14.9 | ... | 15.1 |
| Ltc (Dépense de dépendance) | | 2.2 | 2.2 | 2.1 | | 2.0 | ... | 2.0 |
| var SP 2013 / SP 2012 | | -0.2 | | -0.1 | | 0.0 | ... | 0.0 |
| var SP 2013 / SP 2012 | | 1.1 | | 1.6 | | 1.3 | ... | 1.5 |
| var SP 2013 / SP 2012 | | 0.7 | | 0.3 | | -0.2 | ... | -0.2 |
| Gdp (Euro/mln) | | 1,936,720 | 2,023,918 | 2,201,890 | 2,412,057 | 2,621,590 | ... | 4,220,618 |
| Population | | 64,714,074 | 66,358,014 | 67,820,253 | 69,125,300 | 70,302,983 | ... | 73,724,251 |
| Per-capita Gdp (Euro) | | 29,927,338.53 | 30,499,980.90 | 32,466,554.87 | 34,893,975.57 | 37,289,888.15 | ... | 57,248,709.71 |
| aged 20-64 | | 37,989,976 | 37,948,905 | 37,779,599 | 37,719,344 | 37,600,045 | ... | 37,903,908 |
| active people aged 20-64 | | 28,910,372 | 29,296,555 | 29,921,442 | 30,364,072 | 30,343,236 | ... | 30,740,069 |
| employed aged 20-64 | | 26,327,053 | 26,829,876 | 27,616,887 | 28,176,350 | 28,162,434 | ... | 28,617,451 |
| Pay-as-you-go Burden | | | | | | | | |
| burden per active to finance 1. and 3. (Euro) | | 6,833,030.09 | 7,253,802.00 | 7,800,437.33 | | 9,417,365.62 | ... | 15,652,224.91 |
| burden per worker to finance 1. and 3. (Euro) | | 7,503,515.01 | 7,920,700.35 | 8,451,363.02 | | 10,146,614.23 | ... | 16,813,184.64 |
| burden per active to finance 1., 2. and 3. (Euro) | | 16,613,641.79 | 17,201,873.31 | 18,397,257.86 | | 22,290,645.24 | ... | 36,384,557.91 |
| burden per worker to finance 1., 2. and 3. (Euro) | | 18,243,840.41 | 18,783,375.10 | 19,932,459.95 | | 24,016,756.62 | ... | 39,083,280.08 |
| burden per active to finance 1. and 3. / per-capita Gdp | | 22.83% | 23.78% | 24.03% | | 25.25% | ... | 27.34% |
| burden per worker to finance 1. and 3. / per-capita Gdp | | 25.07% | 25.97% | 26.03% | | 27.21% | ... | 29.37% |
| burden per active to finance 1., 2. and 3. / pe- capita Gdp | | 55.51% | 56.40% | 56.67% | | 59.78% | ... | 63.56% |
| burden per worker to finance 1., 2. and 3. / per-capita Gdp | | 60.96% | 61.58% | 61.39% | | 64.41% | ... | 68.27% |

| Stability Program 2013 | | | | | | | | |
|---|-------|---------------|---------------|---------------|---------------|---------------|-----|---------------|
| | % GDP | 2010 | 2015 | 2020 | 2025 | 2030 | ... | 2060 |
| Health Care (Statutory health insurance) | | 8.0 | | 8.6 | | 9.0 | ... | 9.4 |
| Pensions | | 10.8 | | 10.9 | | 12.0 | ... | 13.4 |
| Ltc (Ltc health insurance) | | 1.4 | | 1.7 | | 2.0 | ... | 3.1 |
| var SP 2013 / SP 2012 | | 0.6 | | 0.5 | | 0.5 | ... | 0.2 |
| var SP 2013 / SP 2012 | | 0.4 | | 0.4 | | 0.5 | ... | 0.6 |
| var SP 2013 / SP 2012 | | 0.5 | | 0.5 | | 0.2 | ... | 0.7 |
| Gdp (Euro/mln) | | 2,496,200 | 2,678,006 | 2,825,773 | 2,943,541 | 3,029,897 | ... | 3,787,403 |
| Population | | 81,742,884 | 80,953,582 | 80,098,347 | 79,077,629 | 77,871,675 | ... | 66,360,154 |
| Per-capita Gdp (Euro) | | 30,537,214.71 | 33,080,756.11 | 35,278,797.22 | 37,223,429.27 | 38,908,842.99 | ... | 57,073,448.88 |
| Aged 20-64 | | 49,560,809 | 49,233,178 | 47,837,086 | 45,797,923 | 42,856,845 | ... | 33,400,637 |
| Active people aged 20-64 | | 39,946,012 | 40,272,740 | 39,322,085 | 37,645,893 | 35,399,754 | ... | 27,789,330 |
| Employed aged 20-64 | | 37,121,046 | 37,811,081 | 36,930,230 | 35,355,997 | 33,256,912 | ... | 26,119,298 |
| Pay-as-you-go Burden | | | | | | | | |
| Burden per active to finance 1. and 3. (Euro) | | 5,873,998.13 | | 7,401,811.38 | | 9,414,998.92 | ... | 17,036,227.84 |
| Burden per worker to finance 1. and 3. (Euro) | | 6,321,018.01 | | 7,881,203.31 | | 10,021,635.45 | ... | 18,125,500.72 |
| Burden per active to finance 1., 2. and 3. (Euro) | | 12,622,847.04 | | 15,234,796.25 | | 19,685,906.83 | ... | 35,299,064.09 |
| Burden per worker to finance 1., 2. and 3. (Euro) | | 13,583,464.24 | | 16,221,505.85 | | 20,954,328.66 | ... | 37,556,037.49 |
| Burden per active to finance 1. and 3. / per-capita Gdp | | 19.24% | | 20.98% | | 24.20% | ... | 29.85% |
| Burden per worker to finance 1. and 3. / per-capita Gdp | | 20.70% | | 22.34% | | 25.76% | ... | 31.76% |
| Burden per active to finance 1., 2. and 3. / per-capita Gdp | | 41.34% | | 43.18% | | 50.59% | ... | 61.85% |
| Burden per worker to finance 1., 2. and 3. / per-capita Gdp | | 44.48% | | 45.98% | | 53.85% | ... | 65.80% |

| Stability Program 2013 | | | | | | | |
|---|-------|---------------|---------------|---------------|---------------|---------------|---------------|
| | % GDP | 2010 | 2015 | 2020 | 2025 | 2030 | 2060 |
| Health Care (Gasto en sanidad) | | 6.5 | | 6.5 | | 7.0 | 7.8 |
| Pensions | | 10.1 | | 10.6 | | 10.6 | 13.7 |
| Ltc (Gasto en cuidados de larga duración) | | 0.8 | | 0.9 | | 0.9 | 1.5 |
| var SP 2013 / SP 2012 | | 0.0 | | 0.0 | | 0.0 | 0.0 |
| var SP 2013 / SP 2012 | | 0.0 | | 0.0 | | 0.0 | 0.0 |
| var SP 2013 / SP 2012 | | 0.0 | | 0.0 | | 0.0 | 0.0 |
| Gdp (Euro/mln) | | 1,048,883 | 1,044,464 | 1,147,496 | 1,288,185 | 1,439,071 | 2,177,165 |
| Population | | 45,989,016 | 46,923,019 | 47,961,070 | 49,027,829 | 49,961,157 | 52,279,310 |
| Per-capita Gdp (Euro) | | 22,807,250.32 | 22,259,091.89 | 23,925,574.51 | 26,274,566.30 | 28,803,804.37 | 41,644,867.29 |
| Aged 20-64 | | 29,130,991 | 29,055,780 | 29,215,008 | 29,468,460 | 29,534,119 | 26,700,202 |
| Active people aged 20-64 | | 22,634,780 | 23,215,568 | 23,781,017 | 24,193,606 | 24,395,182 | 22,161,168 |
| Employed aged 20-64 | | 18,236,000 | 18,770,034 | 19,836,990 | 21,276,228 | 22,298,260 | 20,612,556 |
| Pay-as-you-go Burden | | | | | | | |
| Burden per active to finance 1. and 3. (Euro) | | 3,382,779.02 | | 3,570,693.26 | | 4,660,208.67 | 9,136,537.45 |
| Burden per worker to finance 1. and 3. (Euro) | | 4,198,752.88 | | 4,280,624.91 | | 5,098,453.46 | 9,822,961.24 |
| Burden per active to finance 1., 2. and 3. (Euro) | | 8,063,062.33 | | 8,685,470.09 | | 10,913,146.88 | 22,595,737.77 |
| Burden per worker to finance 1., 2. and 3. (Euro) | | 10,007,986.31 | | 10,412,330.86 | | 11,939,416.32 | 24,293,345.01 |
| Burden per active to finance 1. and 3. / per-capita Gdp | | 14.83% | | 14.92% | | 16.18% | 21.94% |
| Burden per worker to finance 1. and 3. / per-capita Gdp | | 18.41% | | 17.89% | | 17.70% | 23.59% |
| Burden per active to finance 1., 2. and 3. / per-capita Gdp | | 35.35% | | 36.30% | | 37.89% | 54.26% |
| Burden per worker to finance 1., 2. and 3. / per-capita Gdp | | 43.88% | | 43.52% | | 41.45% | 58.33% |



Convergence Program 2013

| | % GDP | 2010 | 2015 | 2020 | 2025 | 2030 | ... | 2060 |
|--|-------|---------------|---------------|---------------|---------------|---------------|-----|---------------|
| Health Care | | 8.1 | | 7.1 | | 7.7 | ... | 9.1 |
| Pensions (State pensions, Pensioner benefits, Public service pensions) | | 9.0 | | 8.4 | | 9.0 | ... | 10.8 |
| Ltc | | 1.3 | | 1.2 | | 1.5 | ... | 2.0 |
| var CP 2013 / CP 2012 | | -0.1 | | -0.5 | | -0.7 | ... | -0.7 |
| var CP 2013 / CP 2012 | | 3.3 | | 3.2 | | 3.0 | ... | 2.9 |
| var CP 2013 / CP 2012 | | 0.0 | | 0.0 | | 0.0 | ... | 0.0 |
| Gdp (Pound/mln) | | 1,466,569 | 1,549,332 | 1,715,624 | 1,888,621 | 2,074,989 | ... | 3,603,253 |
| Population | | 62,008,048 | 64,147,689 | 66,292,265 | 68,350,294 | 70,207,694 | ... | 78,925,262 |
| Per-capita Gdp (Pound) | | 23,651,268.62 | 24,152,574.12 | 25,879,704.75 | 27,631,503.50 | 29,555,010.29 | ... | 45,653,984.20 |
| Aged 20-64 | | 37,073,049 | 37,685,311 | 38,304,199 | 38,502,509 | 38,604,742 | ... | 41,494,204 |
| Active people aged 20-64 | | 29,287,709 | 30,072,878 | 30,605,055 | 30,763,505 | 30,883,794 | ... | 33,485,823 |
| Employed aged 20-64 | | 27,248,691 | 28,037,871 | 28,766,453 | 29,107,897 | 29,339,604 | ... | 31,867,549 |
| Pay-as-you-go Burden | | | | | | | | |
| burden per active to finance 1. and 3. (Pound) | | 4,707,008.23 | | 4,652,721.99 | | 6,181,203.04 | ... | 11,944,190.54 |
| burden per worker to finance 1. and 3. (Pound) | | 5,059,233.34 | | 4,950,099.69 | | 6,506,529.52 | ... | 12,550,731.46 |
| burden per active to finance 1., 2. and 3. (Pound) | | 9,213,718.24 | | 9,361,500.87 | | 12,228,032.10 | ... | 23,565,565.11 |
| burden per worker to finance 1., 2. and 3. (Pound) | | 9,903,180.15 | | 9,959,839.14 | | 12,871,612.74 | ... | 24,762,253.97 |
| burden per active to finance 1. and 3. / per-capita Gdp | | 19.90% | | 17.98% | | 20.91% | ... | 26.16% |
| burden per worker to finance 1. and 3. / per-capita Gdp | | 21.39% | | 19.13% | | 22.01% | ... | 27.49% |
| burden per active to finance 1., 2. and 3. / per-capita Gdp | | 38.96% | | 36.17% | | 41.37% | ... | 51.62% |
| burden per worker to finance 1., 2. and 3. / per-capita Gdp | | 41.87% | | 38.49% | | 43.55% | ... | 54.24% |



Congress Budget Office Us 2013 and U.S. Census Bureau Population Division

| | % GDP | 2010 | 2015 | 2020 | 2025 | 2030 | ... | 2060 |
|---|-------|-------------|-------------|-------------|-------------|-------------|-----|-------------|
| . Medicare, Medicaid, Chip | | 5.6 | 5.9 | 6.7 | 7.5 | 8.4 | ... | 13.3 |
| . Public pensions | | 4.6 | 4.8 | 4.9 | 4.9 | 4.9 | ... | 4.7 |
| . Total public health care provision | | 8.0 | 9.4 | 11.3 | | | | |
| <i>f which: contributions to private health care insurance coverages for public employees</i> | | 1.2 | 1.2 | 1.4 | | | | |
| . Total health care expenditure (private and public) | | 17.9 | 18.2 | 19.2 | | | ... | |
| | | | | | | | ... | |
| Gdp (\$/mln) | | 14,526,000 | 17,100,000 | 19,500,000 | 21,700,000 | 24,000,000 | | 45,900,000 |
| Population | | 308,700,000 | 321,362,000 | 333,898,000 | 346,408,000 | 358,471,000 | ... | 409,871,000 |
| Per-capita Gdp (\$) | | 47,055,394 | 53,211,021 | 58,401,069 | 62,642,895 | 66,951,023 | ... | 111,986,454 |
| Aged 20-64 | | 183,244,320 | 190,746,000 | 193,392,000 | 194,632,000 | 196,683,000 | ... | 225,126,000 |
| Active people aged 20-64 | | 145,129,501 | 150,995,408 | 153,006,494 | 154,440,954 | 156,644,124 | ... | 179,155,271 |
| Employed aged 20-64 | | 131,487,328 | 142,992,652 | 145,050,156 | 146,410,024 | 148,811,917 | ... | 170,197,507 |

Pay-as-you-go Burden - Basic health care assistance and Pensions

| | | | | | | | |
|---|---------------|---------------|---------------|---------------|---------------|-----|---------------|
| burden per active to finance 1. (\$) | 5,605,035.45 | 6,681,660.13 | 8,538,853.29 | 10,538,007.98 | 12,869,936.99 | ... | 34,074,911.52 |
| burden per worker to finance 1. (\$) | 6,186,573.34 | 7,055,607.32 | 9,007,229.20 | 11,116,042.17 | 13,547,302.09 | ... | 35,868,327.91 |
| burden per active to finance 1. and 2. (\$) | 10,209,171.71 | 12,117,587.01 | 14,783,686.29 | 17,422,839.86 | 20,377,400.23 | ... | 46,116,421.60 |
| burden per worker to finance 1. and 2. (\$) | 11,268,401.44 | 12,795,762.42 | 15,594,605.79 | 18,378,523.05 | 21,449,894.98 | ... | 48,543,601.68 |
| burden per active to finance 1. / per-capita Gdp | 11.91% | 12.56% | 14.62% | 16.82% | 19.22% | ... | 30.43% |
| burden per worker to finance 1. / per-capita Gdp | 13.15% | 13.26% | 15.42% | 17.75% | 20.23% | ... | 32.03% |
| burden per active to finance 1. and 2. / per-capita Gdp | 21.70% | 22.77% | 25.31% | 27.81% | 30.44% | ... | 41.18% |
| burden per worker to finance 1. and 2. / per-capita Gdp | 23.95% | 24.05% | 26.70% | 29.34% | 32.04% | ... | 43.35% |

Pay-as-you-go and Pooling Burden - Total public health care assistance and Pensions







| | | | | | | | |
|---|---------------|---------------|---------------|--|--|-----|--|
| burden per active to finance 3. (\$) | 8,007,193.50 | 10,600,057.43 | 14,401,349.57 | | | ... | |
| burden per worker to finance 3. (\$) | 8,837,961.92 | 11,193,302.46 | 15,191,297.02 | | | ... | |
| burden per active to finance 2. and 3. (\$) | 12,611,329.76 | 16,035,984.31 | 20,646,182.57 | | | ... | |
| burden per worker to finance 2. and 3. (\$) | 13,919,790.02 | 16,933,457.56 | 21,778,673.60 | | | ... | |
| burden per active to finance 3. / per-capita Gdp | 17.02% | 19.92% | 24.66% | | | ... | |
| burden per worker to finance 3. / per-capita Gdp | 18.78% | 21.04% | 26.01% | | | ... | |
| burden per active to finance 2. and 3. / per-capita Gdp | 26.80% | 30.14% | 35.35% | | | ... | |
| burden per worker to finance 2. and 3. / per-capita Gdp | 29.58% | 31.82% | 37.29% | | | ... | |

Pay-as-you-go Burden - Total private and public health care assistance and Pensions

| | | | | | | | |
|---|---------------|---------------|---------------|--|--|-----|--|
| burden per active to finance 4. (\$) | 17,916,095.45 | 20,611,222.77 | 24,469,549.72 | | | ... | |
| burden per worker to finance 4. (\$) | 19,774,939.79 | 21,764,754.78 | 25,811,761.30 | | | ... | |
| burden per active to finance 2. and 4. (\$) | 22,520,231.71 | 26,047,149.66 | 30,714,382.72 | | | ... | |
| burden per worker to finance 2. and 4. (\$) | 24,856,767.89 | 27,504,909.88 | 32,399,137.89 | | | ... | |
| burden per active to finance 4. / per-capita Gdp | 38.07% | 38.73% | 41.90% | | | ... | |
| burden per worker to finance 4. / per-capita Gdp | 42.02% | 40.90% | 44.20% | | | ... | |
| burden per active to finance 2. and 4. / per-capita Gdp | 47.86% | 48.95% | 52.59% | | | ... | |
| burden per worker to finance 2. and 4. / per-capita Gdp | 52.82% | 51.69% | 55.48% | | | ... | |

Annex 2:
Central scenarios vs. scenarios with the highest foreseen increase

Central scenarios from Health care and Ltc

| | | 2010 | 2060 | var. |
|--|---|--------|--------|--------|
|  Italy | Paygo burden per active to finance health care and Ltc / per-capita Gdp | 20.52% | 26.69% | 6.17% |
| | Paygo burden per worker to finance health care and Ltc / per-capita Gdp | 22.40% | 28.64% | 6.24% |
| | Paygo burden per active to finance health care, Ltc and pensions / per-capita Gdp | 58.34% | 67.29% | 8.95% |
| | Paygo burden per worker to finance health care, Ltc and pensions / per-capita Gdp | 63.69% | 72.20% | 8.50% |
|  France | Paygo burden per active to finance health care and Ltc / per-capita Gdp | 22.83% | 27.34% | 4.51% |
| | Paygo burden per worker to finance health care and Ltc / per-capita Gdp | 25.07% | 29.37% | 4.30% |
| | Paygo burden per active to finance health care, Ltc and pensions / per-capita Gdp | 55.51% | 63.56% | 8.04% |
| | Paygo burden per worker to finance health care, Ltc and pensions / per-capita Gdp | 60.96% | 68.27% | 7.31% |
|  Germany | Paygo burden per active to finance health care and Ltc / per-capita Gdp | 19.24% | 29.85% | 10.61% |
| | Paygo burden per worker to finance health care and Ltc / per-capita Gdp | 20.70% | 31.76% | 11.06% |
| | Paygo burden per active to finance health care, Ltc and pensions / per-capita Gdp | 41.34% | 61.85% | 20.51% |
| | Paygo burden per worker to finance health care, Ltc and pensions / per-capita Gdp | 44.48% | 65.80% | 21.32% |
|  Spain | Paygo burden per active to finance health care and Ltc / per-capita Gdp | 14.83% | 21.94% | 7.11% |
| | Paygo burden per worker to finance health care and Ltc / per-capita Gdp | 18.41% | 23.59% | 5.18% |
| | Paygo burden per active to finance health care, Ltc and pensions / per-capita Gdp | 35.35% | 54.26% | 18.91% |
| | Paygo burden per worker to finance health care, Ltc and pensions / per-capita Gdp | 43.88% | 58.33% | 14.45% |
|  United Kingdom | Paygo burden per active to finance health care and Ltc / per-capita Gdp | 19.90% | 26.16% | 6.26% |
| | Paygo burden per worker to finance health care and Ltc / per-capita Gdp | 21.39% | 27.49% | 6.10% |
| | Paygo burden per active to finance health care, Ltc and pensions / per-capita Gdp | 38.96% | 51.62% | 12.66% |
| | Paygo burden per worker to finance health care, Ltc and pensions / per-capita Gdp | 41.87% | 54.24% | 12.37% |
|  United States | Paygo burden per active to finance health care and Ltc / per-capita Gdp | 11.91% | 30.43% | 18.52% |
| | Paygo burden per worker to finance health care and Ltc / per-capita Gdp | 13.15% | 32.03% | 18.88% |
| | Paygo burden per active to finance health care, Ltc and pensions / per-capita Gdp | 21.70% | 41.18% | 19.48% |
| | Paygo burden per worker to finance health care, Ltc and pensions / per-capita Gdp | 23.95% | 43.35% | 19.40% |







Only public expenditures considered. For the Us, health care and Ltc expenditures cover Medicare, Medicaid and CHIP.

For European Partners, health care and Ltc expenditures cover the entire perimeter of public financing.

For the Us, the central scenario is the one developed by CBO.

For European Partners the central scenario corresponds to the Awg-reference scenario adopted also in the Stability/Convergence programs.

Highest scenarios for Health care and Ltc

| | | 2010 | 2060 | var. |
|--|---|--------|--------|--------|
|  Italy | Paygo burden per active to finance health care and Ltc / per-capita Gdp | 20.52% | 35.87% | 15.35% |
| | Paygo burden per worker to finance health care and Ltc / per-capita Gdp | 22.40% | 38.49% | 16.09% |
| | Paygo burden per active to finance health care, Ltc and pensions / per-capita Gdp | 58.34% | 76.47% | 18.12% |
| | Paygo burden per worker to finance health care, Ltc and pensions / per-capita Gdp | 63.69% | 82.04% | 18.35% |
|  France | Paygo burden per active to finance health care and Ltc / per-capita Gdp | 22.83% | 42.45% | 19.62% |
| | Paygo burden per worker to finance health care and Ltc / per-capita Gdp | 25.07% | 45.60% | 20.53% |
| | Paygo burden per active to finance health care, Ltc and pensions / per-capita Gdp | 55.51% | 78.66% | 23.15% |
| | Paygo burden per worker to finance health care, Ltc and pensions / per-capita Gdp | 60.96% | 84.50% | 23.54% |
|  Germany | Paygo burden per active to finance health care and Ltc / per-capita Gdp | 19.24% | 41.07% | 21.84% |
| | Paygo burden per worker to finance health care and Ltc / per-capita Gdp | 20.70% | 43.70% | 23.00% |
| | Paygo burden per active to finance health care, Ltc and pensions / per-capita Gdp | 41.34% | 73.07% | 31.74% |
| | Paygo burden per worker to finance health care, Ltc and pensions / per-capita Gdp | 44.48% | 77.74% | 33.26% |
|  Spain | Paygo burden per active to finance health care and Ltc / per-capita Gdp | 14.83% | 29.02% | 14.18% |
| | Paygo burden per worker to finance health care and Ltc / per-capita Gdp | 18.41% | 31.20% | 12.79% |
| | Paygo burden per active to finance health care, Ltc and pensions / per-capita Gdp | 35.35% | 61.34% | 25.98% |
| | Paygo burden per worker to finance health care, Ltc and pensions / per-capita Gdp | 43.88% | 65.94% | 22.06% |
|  United Kingdom | Paygo burden per active to finance health care and Ltc / per-capita Gdp | 19.90% | 32.53% | 12.62% |
| | Paygo burden per worker to finance health care and Ltc / per-capita Gdp | 21.39% | 34.18% | 12.79% |
| | Paygo burden per active to finance health care, Ltc and pensions / per-capita Gdp | 38.96% | 57.98% | 19.03% |
| | Paygo burden per worker to finance health care, Ltc and pensions / per-capita Gdp | 41.87% | 60.93% | 19.05% |
|  United States | Paygo burden per active to finance health care and Ltc / per-capita Gdp | 11.91% | 33.86% | 21.95% |
| | Paygo burden per worker to finance health care and Ltc / per-capita Gdp | 13.15% | 35.64% | 22.49% |
| | Paygo burden per active to finance health care, Ltc and pensions / per-capita Gdp | 21.70% | 44.61% | 22.92% |
| | Paygo burden per worker to finance health care, Ltc and pensions / per-capita Gdp | 23.95% | 46.96% | 23.01% |

Only public expenditures considered. For the Us, health care and Ltc expenditures cover Medicare, Medicaid and CHIP.

For European Partners, health care and Ltc expenditures cover the entire perimeter of public financing.

For the Us, the highest scenario correspond to the "high variant scenario" developed by CBO.

For European Partners the highest scenario corresponds to the highest one within those developed by Awg as sensitivity analysis.