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RESEARCH

Global Graying Country Report: United States of America

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While the world's population will continue to grow to reach 9 billion by the middle of the current century from 6 billion in 2000, it will also turn much older. The U.N. estimates that by 2050, the median age of the world's people will reach 38 years, 10 years older than in 2005. The worldwide old-age dependency ratio is estimated to surge to 45% in 2050, from 19% in 2005. This trend will put pressure on public finances across the globe. Without concerted policy and fiscal reforms, aging populations will lead to intense pressure on the public finances and sovereign ratings of many developed countries in the coming years.

On May 31, 2006, Standard & Poor's Ratings Services published a report outlining various simulations through 2050 of the fiscal and hypothetical sovereign ratings implications for 32 sovereigns, including all 25 EU members, as well as Canada, the U.S., Australia, New Zealand, Norway, Japan, and the Republic of Korea (see commentary article "Global Graying: Aging Societies and Sovereign Ratings," published on RatingsDirect, Standard & Poor's Web-based credit analysis system). A supplement detailing the simulation model, assumptions, and data sources was also published (see "Global Graying: Aging Societies and Sovereign Ratings--Methodological and Data Supplement," published on RatingsDirect on May 31, 2006).

A key conclusion of the main report is the fall-out that aging may have on government solvency. Without further adjustment either to the current fiscal stance or to pension and health care costs, the median general government net debt-to-GDP ratio for the sample will reach an overpowering 180% of GDP by the middle of the current century, from 33% in 2005. In addition to these projections for the whole sample of 32 sovereigns, Standard & Poor's has also made country-specific simulations for the United States of America (AAA/Stable/A-1+).

The worldwide trend of global aging will not bypass the U.S. The old-age dependency ratio will rise slightly less than for the global population, to reach 33% in 2050, up from 18% in 2005 (see table). The median age will rise to 41 years by 2050, from 36 years today. Overall, the U.S. population will rise to 395 million in 2050, from 298 million in 2005. The share of the working age population will fall to 62% by mid-century, from 67% today. This shift in the age structure of the population will profoundly change U.S. society in a multitude of aspects.

Among the certain consequences of demographic change will be sustained and increased pressure on public finances. Demand for publicly provided health- and long-term care services, as well as social security pensions, which will only be minimally offset by lower outlays for unemployment benefits, as a shrinking workforce reduces the number of the jobless. Absent further reforms (our base-case scenario for this simulation) total age-related public expenditure in the U.S. will rise to 20% of GDP in 2050, up from 10% in

2005. This increase of 10 percentage points of GDP is above the 6.4 percentage point increase for the median in the sample of 32 sovereigns. The strongest pressure on spending is expected to come from health care outlays, followed by long-term care and social security pensions (see table). Until 2020, the rise of age-related public spending will be contained, but it will accelerate thereafter, as larger cohorts reach retirement age.

The implications for public finances would be severe. First of all, the weight of general government, including social security, would rise sharply to 55% of GDP in 2050, up more than 25 percentage points from current levels. This would result not only from the higher expenditures themselves, but also from the rising interest costs of the government debt. Without any measures on the fiscal or structural policy front, general government deficits and net debt would rise sharply from 2020, reaching 29% and 350% of GDP, respectively, by 2050, which is well above the corresponding values of the sample median.

A fiscal deterioration of that magnitude is not compatible with the current 'AAA' sovereign rating of the United States. Based on the described fiscal outcomes, a simplistic "hypothetical sovereign rating" is derived. In practice, Standard & Poor's takes a large number of factors into consideration when deriving sovereign credit ratings (see criteria report "Sovereign Credit Ratings: A Primer," published on RatingsDirect on Sept. 27, 2005). In the very long-term, however, prolonged fiscal imbalances tend to become a dominant factor. To obtain an indication of the direction of sovereign ratings, it is therefore useful to compare the U.S. simulated general government balance with the median budget balance for each rating category, averaged over the 2000-2008 period, which comprises both boom and bust episodes of the global business cycle (see the "Methodological And Data Supplement" for details). Using this simplistic approach, the U.S. 'AAA' rating would come under increasing pressure. After 2015 it would fall into the 'A' category, and would then drop further into the 'BBB' category by 2020. In 2025, U.S. fiscal indicators would have weakened to an extent that they would be more typical of performances currently associated with speculative-grade sovereigns.

This scenario is not a prediction by Standard & Poor's. It is a simulation that highlights the importance of age-related spending trends as a factor in the evolution of sovereign creditworthiness. In reality, it is highly unlikely that governments will allow debt and deficit burdens to spiral out of control. Once governments are confronted with unsustainably rising debt burdens they do react, however reluctantly, by tightening the fiscal stance and/or reforming expenditure programs.

In addition to the base-case, we have considered several other long-term scenarios (see table). The scenarios are explained in greater detail in the main report and include radical structural reform freezing all age-related spending at current levels as a percentage of GDP, a front-loaded fiscal adjustment leading to budget balance by 2008, persistently lower real interest rates, or creditors demanding risk spreads as a function of the U.S. government debt ratio.

The scenario analysis gives some valuable insights about the power of policy choices. If the U.S. were to embark on a radical structural reform preventing age-related spending from rising, fiscal indicators would hold up much better. Following such a concentrated policy approach, the U.S. net debt ratio would be only 40% of the ratio under the no-policy-change base-case. The theoretical sovereign rating would not fall below the 'BBB' category even by the middle of the current century.

Alternatively, if the government leaves social security and other age-sensitive expenditure programs untouched but delivers an up-front fiscal consolidation, balancing the books by 2008, the net debt ratio in 2050 would only be one-half of the outturn under the base-case simulation. However, the bond rating would still fall into the speculative range by 2035.

Comparing the two scenarios suggests that the key challenge to the sustainability of U.S. public finances lies

in the aging population, although the current imbalance in the budget is a major contributing factor.

The U.S. position has worsened since 2003, because of the new drug benefit added to Medicare, which increases estimated health care costs by nearly 2% of GDP annually in 2050, and accounts for one-quarter of the rise in spending on the elderly. Even without that new program, however, the U.S. fiscal position would slip to speculative-grade characteristics by 2030.

United States Aging Population Assumptions And Scenario Outputs

	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Demographic and economic assumptions										
Population (mil.)	298.2	312.3	325.7	338.4	350.1	360.9	370.7	379.5	387.5	395.0
Working-age population (% of total)	66.9	67.2	66.2	64.9	63.6	62.6	62.3	62.3	62.3	62.1
Elderly population (aged over 65; % of total)	12.3	12.8	14.1	15.8	17.7	19.2	19.9	20.2	20.3	20.6
Old-age dependency ratio (%)	18.4	19.0	21.3	24.4	27.9	30.7	32.0	32.4	32.5	33.3
Total dependency ratio (%)	49.4	48.9	51.0	54.0	57.1	59.6	60.5	60.6	60.5	61.1
Real GDP (% change)	3.5	3.0	2.6	2.6	2.6	2.5	2.5	2.5	2.6	2.7
Age-related government expenditures (% of GDP)										
Pensions	4.2	4.2	4.6	5.0	5.5	6.0	6.2	6.3	6.3	6.4
Health care	4.2	4.9	5.6	6.2	7.0	7.7	8.4	8.9	9.4	9.8
Long-term care	0.7	0.9	1.1	1.4	1.7	2.0	2.3	2.6	2.8	3.1
Unemployment benefits	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3
Total	9.7	10.5	11.8	13.1	14.6	16.1	17.3	18.2	18.8	19.6
Scenario 1: base-case* (% of GDP)										
Net general government debt	49.4	53.1	65.5	85.8	113.4	149.0	191.9	240.9	294.1	350.3
General government balance	(3.9)	(4.5)	(6.7)	(9.0)	(12.0)	(15.2)	(18.5)	(21.9)	(25.2)	(28.8)
General government expenditures	30.3	31.2	33.4	35.7	38.6	41.9	45.2	48.5	51.8	55.4
General government interest expenditures	1.7	2.5	3.4	4.4	5.7	7.5	9.6	12.1	14.7	17.5
Theoretical long-term sovereign rating	AAA	AAA	A	BBB	Spec.	Spec.	Spec.	Spec.	Spec.	Spec.
Scenario 2: no additional age-related spending¶ (% of GDP)										
Net general government debt	49.4	53.0	62.0	72.2	82.8	93.7	104.9	116.4	127.8	139.0
General government balance	(3.9)	(4.3)	(5.0)	(5.5)	(6.1)	(6.6)	(7.2)	(7.7)	(8.3)	(8.9)
Theoretical long-term sovereign rating	AAA	AAA	AAA	AA	AA	A	A	A	BBB	BBB
Scenario 3: balanced budget in 2008§ (% of GDP)										
Net general government debt	49.4	45.6	39.0	39.8	47.4	62.6	84.6	112.2	143.9	178.8
General government balance	(3.9)	(0.2)	(1.4)	(2.7)	(4.7)	(6.9)	(9.2)	(11.5)	(13.7)	(16.3)
Theoretical long-term sovereign rating	AAA	AAA	AAA	AAA	AA	A	Spec.	Spec.	Spec.	Spec.
Scenario 4: lower real interest rate (% of GDP)**										
Net general government debt	49.4	52.6	62.5	79.4	102.6	132.4	167.9	207.5	249.2	292.0

General government balance	(3.9)	(4.1)	(5.9)	(7.9)	(10.4)	(13.1)	(15.7)	(18.1)	(20.5)	(22.9)
Theoretical long-term sovereign rating	AAA	AAA	AA	BBB	Spec.	Spec.	Spec.	Spec.	Spec.	Spec.
Scenario 5: discriminating investors¶¶ (% of GDP)										
Net general government debt	49.4	53.1	65.5	86.3	115.6	155.8	208.8	278.1	370.3	500.3
General government balance	(3.9)	(4.5)	(6.8)	(9.3)	(12.7)	(17.1)	(22.5)	(29.8)	(40.5)	(58.3)
Theoretical long-term sovereign rating	AAA	AAA	A	BBB	Spec.	Spec.	Spec.	Spec.	Spec.	Spec.

*Base-case scenario assumptions include a real interest rate of 3%, inflation of 2%, no country-specific spreads, and a 2% of GDP fiscal surplus ceiling. ¶As base-case, but no additional age-related spending above and beyond the level of 2005. §As base-case, but starting with a balanced general government budget in 2008. **As base-case, but with a lower, 2%, real interest rate. ¶¶As base-case, but credit spreads over the 3% real interest rate rise by 1 basis point for each percentage point that general government debt exceeds 60% of GDP. Details regarding data sources and methodology can be found in a supplement published separately ("Global Graying: Aging Societies And Sovereign Ratings--Methodological And Data Supplement," published on May 31, 2006, on Ratings Direct, Standard & Poor's Web-based credit analysis system). All projections (except scenario 2) use the technical assumption that the current design of social security systems will remain in place throughout the projection period. Spec.--Speculative-grade.