STANDARD &POOR'S | RATINGSDIRECT

Return to Regular Format

Research:

In The Long Run, We Are All Debt: Aging Societies And Sovereign Ratings

Publication date: 18-Mar-2005

Primary Credit Analyst(s): Moritz Kraemer, London (44) 20-7176-7114; moritz_kraemer@standardandpoors.com

Secondary Credit Analyst(s): John Chambers, CFA, New York (1) 212-438-7344; john_chambers@standardandpoors.com
Beatriz Merino, London (44) 20-7176-7108; beatriz_merino@standardandpoors.com

Population aging is a global phenomenon. By 2050, the median age of the world's population will be 37 years, more than 10 years older than at the turn of the millennium. The U.N. estimates that 14 countries will have a median population age of 50 years or more by the middle of the current century, most of them in Europe. This article will investigate the repercussions of the aging mega-trend on public finances and sovereign credit ratings in five of the world's leading industrialized countries: Germany, France, Italy, the U.K., and the U.S. (for official names and sovereign credit ratings see "Sidebar: Statistical And Ratings Appendix" at the end of this article). This study updates and expands Standard & Poor's simulations published in 2004 for a wider set of countries (see commentary article "The Western World Past its Prime--Sovereign Ratings Perspectives in the Context of Aging Populations," published on RatingsDirect, Standard & Poor's Web-based credit analysis system, on March 31, 2004). Details regarding data sources and methodology used can be found in a methodological supplement published separately (see "In The Long Run We Are All Debt: Aging Societies And Sovereign Ratings--Methodological And Data Supplement," published on RatingsDirect on March 18, 2005). Our new report concludes that much more still needs to be done to bring public finances on an even keel over a long time horizon.

The Key Findings

The countries covered in the study have very diverse social security systems. In at least one country, the U.S., a major debate about social security reform is now underway. The debate is also heating up in the U.K., where significant changes can be expected after the 2005 general elections, whereas France, Germany, and Italy have already seen important modifications to their own pay-as-you-go (PAYGO) pension regimes in the past 24 months. Awareness of unresolved future sustainability problems are therefore on the ascendant on a broad front, increasingly including the general public.

Notwithstanding the reform flurry of late, without further adjustment either to the current fiscal stance or to social security and health care costs, the general government debt-to-GDP ratios of France, Germany, and the U.S. will surpass the 200% of GDP mark by the middle of the current century, resulting in deficits that will be more akin to those currently associated with speculative-grade sovereigns. Indeed, other factors being equal, sovereign ratings could begin to fall from their current levels early in the next decade. By the 2020s, the downward pressure on ratings would greatly accelerate and by the late-2030s, all but Italy would drop below the investment grade divide. It needs to be stressed that this scenario is not a prediction by Standard & Poor's. It is highly unlikely that governments will allow debt and deficit burdens to spiral out of control in the manner outlined above. Nevertheless, the scenario does reveal the dimension of the problem that governments face in pruning benefits granted by unfunded state-run social security systems and/or achieving further fiscal belt-tightening.

Although the requirements for further adjustment unite all the sovereigns covered here, the reforms are likely to differ across countries. In Germany, and especially France, public pensions are the main driver of burgeoning government deficits, especially after 2020, when the European baby-boom generation reaches retirement age. The transmission mechanism of aging populations on public finances is different in the U.K. and the U.S., as most pressure is likely to be related to health care expenditures, including long-term care. Overall, short of changes to the prevailing social security and health care

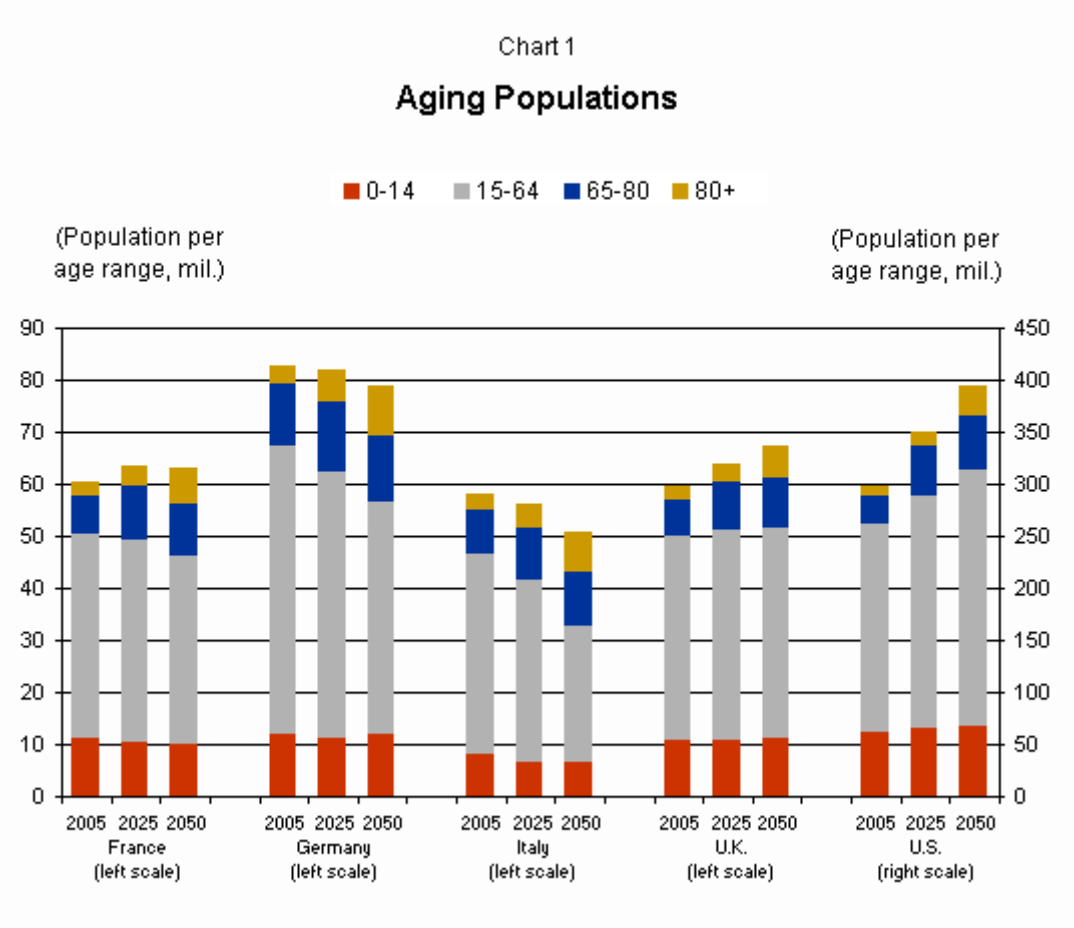
systems, Germany and the U.S. are expected to confront a rise in age-related public expenditures by 5.6% and 5.7% of GDP, respectively, by 2050 compared with 2005.

Finally, aging is only one force jeopardizing long-term fiscal solvency. The weak fiscal starting position is another factor of similar importance. If governments started with balanced budgets in 2005, their debt ratios by 2050 would on average only be about one-half as large as under the scenario described above, even with no further reform aimed at squeezing age-related outlays. This forcefully underlines the need to embark on a prudent fiscal stance as early as possible to be able to better absorb the surge of entitlements ahead. Although attempts to reform pensions and health care systems are therefore welcome, their positive effects are diluted by the nonchalant attitude among governments with regard to fiscal consolidation here and now. A rational and balanced approach to secure fiscal sustainability, with an emphasis to bring government budgets back to balance or into surplus as quickly as possible, would complement systemic reform.

Aging Is A Constant, Despite Demographic Divergence

Two central forces determine the source of a changing aging profile: longevity and fertility. What has caused the destabilization of the intergenerational distribution in the coming half-century is the unprecedented drop of fertility. By contrast, increases in longevity continue to follow broadly the historic trend. Chart 1 illustrates the consequences of these changed reproductive parameters. The annual number of births in the EU-15 peaked in the mid-1960s at 6.25 million, only to drop to a post-war low of fewer than 4.0 million today. Italy is particularly hard-hit by this development. The working-age population will fall by one-third between 2005 and 2050, while the median age will rise to 52 years from 42. The share of the very old (80+ years) will almost treble in Germany and Italy to 12% and 15% of the population, respectively. Indeed, Germany's population actually shrank for the first time in 2004, as net immigration was no longer sufficient to offset the naturally declining resident population. Even in the U.K., where the population is still increasing, fertility is too low to prevent indigenous population shrinkage, and population growth is driven by immigration. Population growth will be more stunted in Europe than in the U.S.: in 2005, the four European countries taken together will account for roughly 88% of the U.S. population, a share that will drop to 66% in 2050.

These numbers are based on the U.N.'s demographic base-case assumptions, which in the event may well err on the side of optimism. In this regard, the U.N. assumes partial "normalization" of currently depressed fertility rates to on average 1.85 children per woman. In the EU-15, fertility has dropped precipitously to less than 1.5 since the late-1990s, from more than 2.7 in 1964. As a rule, an average of fewer than 2.1 live births per woman indicates shrinking populations. The experience in the U.S. is very different, as the population will continue to rise by a total of 32% through to 2050. Although immigration plays a part, demography is key: American women give birth to more than two children on average and life expectancy increases somewhat more slowly than in Europe. The share of the working-age population will also fall in the U.S. (to 62% in 2050 from 67% in 2005), but this compares well with the average of the four European countries, where this ratio is to decline much faster to 56% from 66%.



The burden of aging on European workforces is exacerbated by the fact that the share of people in each cohort who actually pursue any labor market activity remains typically well below American standards. Furthermore those who do work tend to work fewer hours (see commentary article, "Degrees of Excellence: Comparing and Contrast the Five 'AAA' Rated G7 Economies," published on RatingsDirect on Oct. 17, 2004). Although the U.K. can match the American employment rate of more than 70% for the 15-64 year cohort, the ratio of most continental European countries falls far short of this, especially in the case of Italy (57%). The main culprit is the low participation rate of older workers (aged 55-64), and there again especially of women. For example, less than one-in-five Italian women in the 55-64 age-group participate in the labor market, compared with more than one-in-two in the U.S. The legal retirement age is 65 years in most cases, but European workers benefit from early retirement schemes and effectively retire on average at about 60. Although this gap is likely to narrow as older cohorts move out of the labor force, the graying of Europe's workforce will be a reality for decades to come. To the degree that absorption of innovation and change correlate positively with the youthfulness of the workforce, as some studies suggest, Europe's productivity growth may permanently trail that of the U.S., making it harder still to support the aging population.

Private Pensions Are No Panacea

The previous section seems to suggest that the U.K., and especially the U.S., should be better placed than their continental European peers to cope with the impending demographic transition. All the more so, as funded pension savings in the U.S. and the U.K. are estimated at about 80% of GDP, compared with only 5%-20% of GDP in Italy, France, and Germany. This misleading statistic has given rise to complacency in certain circles in both the U.K. and the U.S. In fact, household saving rates in continental Europe are substantially higher (about 10% of disposable incomes in 2000-2005) than in either the U.K. (6%) or the U.S. (less than 2%). A large share of this saving is directed towards retirement and invested in life insurance or other savings instruments, which are not classified as pensions savings, because they are not linked to a minimum-age condition. Indeed, high levels of precautionary savings are a likely contributor to structurally lackluster private consumption in Italy and Germany, as compared with the more consumerist societies in the U.K. and the U.S.

The probability is, however, that U.K. households will need to save more. The U.K. model (often touted as one to follow for would-be reformers in the U.S.) is in crisis itself. The reforms initiated in the 1980s allow workers to opt out of the state PAYGO system and to divert part of their tax payments into personal pensions. This was financed by increasing taxes for the better-off and reindexing state benefits to prices rather than wages. Two decades on, both the private pension and the state pension schemes are in troubled waters. More than 70% of U.K. companies have now closed their defined-benefit schemes and many pension plans are underfunded as a result of exuberant expectations of equity returns in the 1980s and 1990s, exacerbated by the abolition in 1997 of dividend tax-relief for pension funds. Accounting rules now force companies to reflect this shortfall more explicitly on their balance sheets, weighing down on reported corporate profitability for years to come. At the same time, the minimalistic public PAYGO system had caused pensioner living standards to fall to politically unacceptable levels, leading to multiple layers of means-tested benefits to redress old-age poverty. Although today about one-half of all British pensioners receive means-tested benefits, this ratio could rise to 80% in 2050 as a result of inflation indexing of benefits. Since means-tested benefits are withdrawn if pensioners have sufficient private savings to rise above the poverty line, the system acts for many as a disincentive to save.

Fundamentally, the British pensions crisis is similar to those facing the continental peers: generous pension promises were made without the resources to actually deliver. The difference is that in the U.K., companies made that promise, whereas in continental Europe, the promise was made by governments. Without entitlement cuts, there is only one way to solve fiscal problem of an aging society: national savings (private or public) need to rise. On that front, the British system has not been any more successful than the plain-vanilla PAYGO systems. The U.K. has reached an inflection point, and decisions on reforming the ailing system will be made after the 2005 general election, probably including some element of compulsory savings and a reduction of the excessive complexity of the current system.

Elements Of Age-Related Public Spending

The age-related spending categories considered in this study are old-age pensions (including early retirement schemes), health care, long-term care for the frail, education, and child benefits. The first two items exert the most pressure on public spending (see Table 1). Future savings on education and child benefits tend to be at best marginal, despite the decline in fertility rates. Age-related spending thus defined accelerates only after 2015, with a somewhat more frontloaded profile in France and the U.K. Spending pressures in the U.S. and Germany mount right until the end of the projection period. The peaks in Italy, France, and the U.K. happen earlier and are more moderate. In the English-speaking countries, spiraling health and care costs appear to be the main concern. In France and Germany, it is pension benefits that fuel public spending.

Table 1 Age-Related Spending

(Change versus 2005, % of GDP)	2015	2025	2035	2050	2050 composition of incremental public age-related spending (%)
Germany					
Total	0.1	1.6	3.3	5.6	100.0
Pensions*	0.1	1.1	1.9	2.7	48.4
Health care	0.5	0.8	1.5	1.9	33.2
Other¶	(0.5)	(0.3)	(0.2)	1.0	18.4
France					
Total	1.5	3.3	4.3	3.8	100.0
Pensions*	1.4	2.3	2.7	2.4	63.7
Health care	0.7	1.2	1.8	1.8	46.5
Other¶	(0.6)	(0.3)	(0.2)	(0.4)	(10.3)
Italy					
Total	(0.4)	1.2	2.6	1.9	100.0

Pensions*	(0.3)	0.8	1.5	0.5	26.2
Health care	0.3	0.7	1.3	1.6	84.0
Other¶	(1.5)	(0.8)	(0.6)	(1.4)	(75.9)
U.K.					
Total	1.2	2.4	3.7	3.5	100.0
Pensions*	0.6	1.3	2.0	1.6	45.7
Health care	1.3	1.2	2.3	2.0	57.7
Other¶	(0.4)	0.5	0.0	(0.1)	(3.3)
U.S.					
Total	1.1	3.5	5.0	5.7	100.0
Pensions*	0.6	1.8	2.3	2.1	36.8
Health care	0.5	1.1	1.8	1.9	33.3
Other¶	(0.7)	1.2	0.9	1.8	31.2

*Including early-retirement programmes. ¶Of which long-term care is the most important, but also including education and child benefits.

All spending projections are based on national estimates in the context of multilateral research projects conducted at the OECD and the European Commission. The figures include the effect of the 2003-2004 pension reforms in France, Germany and Italy. When interpreting the numbers and the fiscal consequences simulated below, the limited comparability must be kept in mind. Although the aforementioned international organizations, as well as Standard & Poor's itself (please consult the methodological supplement for details), do their best to correct for undue optimism or pessimism in the nationally compiled figures, the success of these harmonization attempts will always be only partial. Thus, overoptimistic official estimates may lead to too cheerful a fiscal and ratings trajectory, and vice-versa. Nevertheless, broad orders of magnitudes should be sufficiently precise, especially over longer timeframes. A second important caveat concerns projected health care expenditures, which are to a significant extent determined by the penetration of technological progress, which by definition is as yet unknown.

Deficits, Debt, And Dropping Ratings

Based on the 2005-2050 country-specific profiles of age-related government spending of Table 1 (including all intermediate years not presented) three scenarios are calculated to assess the importance of demography on government budgets, debt burdens, and sovereign credit ratings.

The simulations share two key assumptions:

- The "fiscal autopilot". This behavioral assumption states that in every country the recent (2000-2004) fiscal stance will be maintained every year in the simulation period. "Fiscal stance" is defined as the adjusted primary surplus, which is identical to the primary surplus excluding the effect of incremental future (post-2005) age-related expenditures and changes to the debt-service bill originating from declining or rising government debt levels relative to 2004. This means that all citizens receive exactly the same average mix of taxes and non-age-related public services as in the period 2000-2004.
- The "surplus ceiling". This assumption is based on the expectation that, in the countries covered in the sample, a budget surplus on a sustained basis is politically infeasible. If a surplus were to be achieved, taxes would be cut to bring the budget back to balance. The adjusted primary surplus is therefore taken to be whichever is the lower of either the actual average observed in 2000-2004, or the level that would have been required to generate a balanced budget in the three years immediately preceding the forecast period.

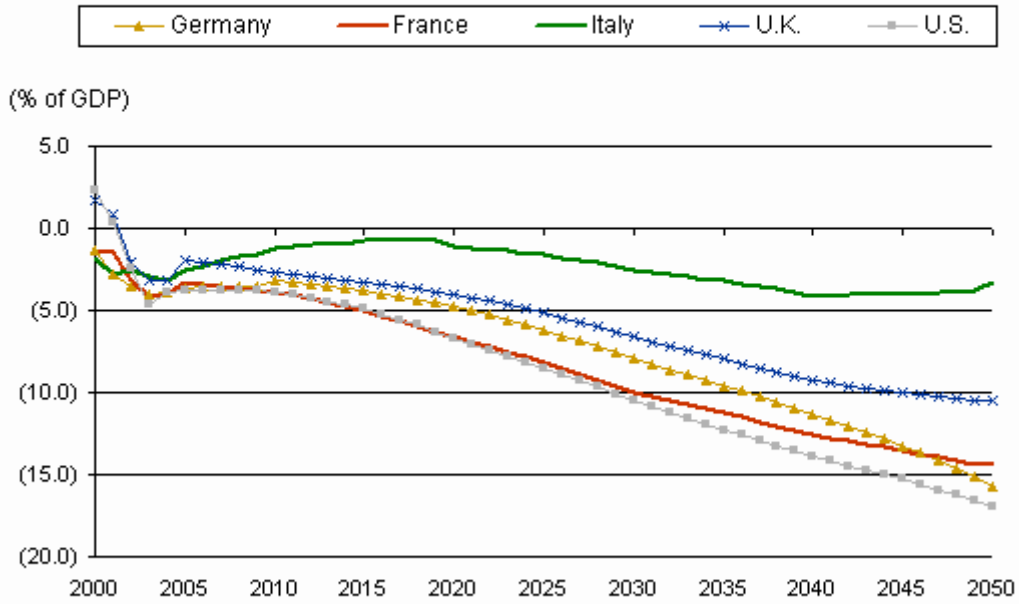
The first scenario is called the "No change scenario", under which the government refrains from adjusting either the fiscal stance as described above or the schemes governing age-related spending categories. In other words, the government does absolutely nothing except for borrowing for any budget shortfall that may materialize. Charts 2 and 3 display the deficit and debt trajectory for the five countries

through to 2050. It becomes evident that the fiscal imbalances would only embark on a truly unsustainable trend in the 2015-2025 period, with certain notable inter-country differences.

The exception is Italy, where the situation would remain under control throughout the forecast period. The reason for this lies in the fact that the very high current debt burden (see Chart 3) has left the Italian government no choice but to generate larger primary surpluses than in the peer countries (although these surpluses have been falling fast in recent years, leading to a lowering of the long-term sovereign credit ratings to 'AA-' in July 2004). The "fiscal autopilot" is defined in a way that would perpetuate the adjusted primary surpluses even as the debt ratio initially continues to decline. This leads to headline deficit improvements until about 2020, when the rising age-related expenditures begin to outweigh the downward-trending interest burden. It is possible that Italy's age-related expenditures may also be estimated optimistically. Nevertheless, the main reason for the apparent better performance is the model's assumption that, as long as the headline budget balance remains in deficit, governments will not cut taxes even if primary balances improve. This assumption should be viewed through the prism of political reality in Italy (especially considering the 2005/2006 tax cuts), but the "fiscal autopilot" is the common basis of the simulations for all countries.

Chart 2

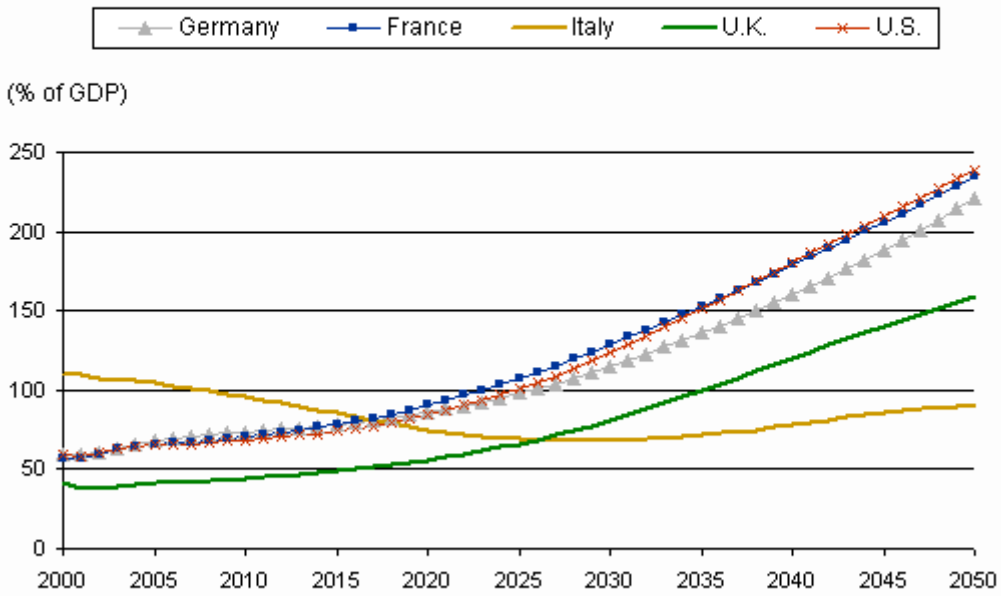
General Government Balances



Assuming no change in current government fiscal policies.

Chart 3

General Government Debt Trajectories



Assuming no change in current government fiscal policies.

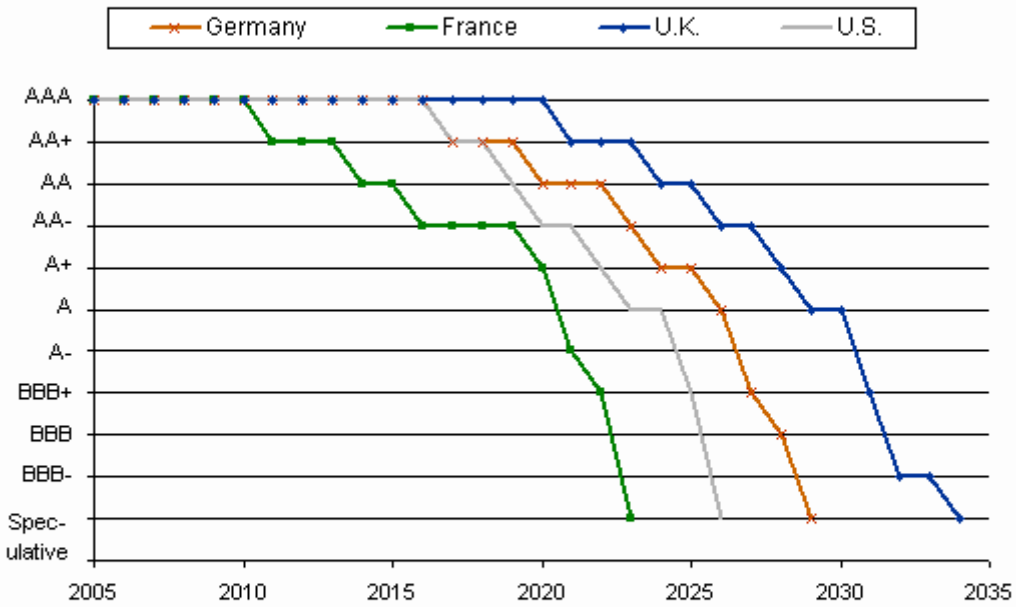
In practice, Standard & Poor's takes a large number of factors into consideration when deriving sovereign credit ratings. In the very long term, however, prolonged fiscal imbalances tend to become a dominant factor. To obtain an indication of the direction of sovereign ratings, it is therefore useful to compare each country's simulated general government balance with the median budget balance for each rating category, averaged over the 2000-2004 period (see Chart 4). Future theoretical ratings are derived by simply comparing the forecast fiscal balance with the balance characteristic for the different rating categories (with interpolations for the '+' and '-' rating qualifiers). An adjustment is being made to reflect the fact that all 'AAA' rated countries in the sample had deficits well in excess of the 'AAA' median in 2000-2004 (0.3% of GDP surplus), as mitigating factors offset weak fiscal performances.

Using this simplistic approach, Chart 4 indicates how these fiscal trends would translate into theoretical sovereign ratings. As can be appreciated, all ratings (with the exception of Italy, which is not depicted) would come under severe pressure and all (France first, Britain last), would eventually display fiscal characteristics that would better befit speculative-grade sovereigns, even after taking mitigating strengths into account. Although the downward drift is impressive by any standards, equally noteworthy is the nonlinearity of the theoretical ratings over time. Ratings would weaken somewhat in the coming decade but then fall precipitously, as the full brunt of age-related expenditure hits government budgets. In the real world outside the "fiscal autopilot" this may lead to a mistaken sense of security conspiring against necessary change in the early part of the forecast period.

In practice, the theoretical ratings may overstate the sharp decline in creditworthiness. Theoretical ratings are based on surplus medians today, whereas it is of course likely that the medians themselves could worsen as an ever larger number of rated sovereigns feels the fiscal pinch of aging populations. Moreover, Standard & Poor's may give more weight to mitigating credit strengths than assumed in the model, which is based on current tolerance levels regarding downside deviations of the government balance from the 'AAA' median. Japan, for example, is rated AA-/Stable/A-1+, although the sovereign's current fiscal deficit would place it in the 'BBB' category according to the mechanistic approach applied here.

Chart 4

Hypothetical Sovereign Ratings Based On General Government Balance Performance



Assuming no change in current government fiscal policies. Standard & Poor's takes a large number of factors into consideration when deriving sovereign credit ratings. 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 each country's simulated general government balance in any given year with the median budget balance for each rating category, averaged over the 2000-2004 period. For additional methodological information consult the text and the Methodological Supplement.

Not all of this fiscal decline, however, is the result of age-related spending pressures. A significant share is also due to weak budgetary starting positions, which lead to inexorably increasing debt-service burdens. In a second scenario ("Balanced budget") the simulations are repeated, but this time assuming that all governments would achieve balanced budgets in 2005 and hold the corresponding adjusted primary balance constant thereafter. This means a tighter "fiscal autopilot", with deficits occurring only if the incremental age-related spending compared with 2005 is positive. By comparing the deficit, debt and ratings developments of the "No Change" and the "Balanced budgets" scenarios, one can appreciate the net effect of aging. Although debt would still rise in all cases (except Italy) between today and 2050, it predictably does so much less in the "Balanced budget" than in the "No change" scenario. The most extreme cases are Germany and France, where debt ratios in 2050 in the "Balanced budget" scenario would reach "only" 78% and 93% of GDP respectively, compared with 221% and 235% of GDP in the "No change" scenario. By contrast, the U.K. and the U.S. could have cut their 2050 debt ratio in half, if they had reached a balanced budget in 2005 and left the fiscal stance unchanged thereafter. Table 2 also shows that the corresponding sovereign ratings would also look less negative, although the U.S. would still touch speculative grade territory in 2050. Evidently, preparing for aging through structural reform matters, but in most cases the politically less rewarding task of bringing budget deficits down today is at least as important.

This message is reaffirmed by the third simulation ("No aging"), which assumes that incremental age-related government spending is zero in 2005-2050. In other words, it captures in isolation the effect of the weak fiscal starting position. By comparing the "Balanced budget" and the "No aging" scenarios, one can gauge the relative effect on fiscal sustainability of the prevailing weak fiscal stance on the one

hand, and age-related spending pressures on the other. In France, both effects are broadly the same by 2050, whereas aging is more destructive to fiscal health in the U.S., the U.K., and Italy. In Germany, on the other hand, long-term fiscal sustainability would be better served by balancing the budget now than by modifying the pension and health care systems (although this is of course also helpful). Whereas the degree of uncertainty surrounding these numbers is substantial, one conclusion is obvious. The detrimental effects on long-term fiscal sustainability coming from aging and weak starting positions reinforce each other. This can be appreciated by adding up the deficit ratios of the second and third scenarios, the sum of which is still smaller than the deficit under the "No change" scenario.

Conclusion: Prudence Would Complement Reforms

The preceding analysis in no way constitutes a forecast of ratings trajectories by Standard & Poor's. It merely states that, if no countervailing structural and fiscal reforms were to be taken, deficits would increase to levels that, sooner or later, would become incommensurate with today's ratings--and by a large margin. The simulation illustrates underlying tendencies of what could happen in the unlikely event of complete government complacency. The message is unambiguous: without strong and sustained reform, the high credit ratings on these governments could be lost due to demographic spending pressures, starting in the 2010s.

There is nothing inevitable about the future evolution of fiscal indicators and the concomitant trend of sovereign ratings. Clearly, governments can influence ratings strongly through the adoption or rejection of specific policy initiatives. The example of Italy in the past two decades is instructive: once governments are confronted with unsustainably rising debt burdens they do react, however reluctantly, by tightening the fiscal stance. Nevertheless, the simulated fiscal paths illustrate that governments will have much work to do to escape the fiscal headwind and the attendant lowering of their sovereign ratings.

The ongoing reform debate is therefore encouraging. Most of the action seems to be focused on reforming the pensions systems. This focus is politically appealing, as the sacrifices are often in the distant future and not easily understood by the electorate. Technically, tackling social security is also relatively "easy", compared with health care reform, which has to address more immediately felt and ethically charged issues. For example, in the U.S., Medicare is arguable a larger long-term fiscal threat than social security, but all political capital is invested in reforming the latter. Finally, the value of sound public finances today for long-term sustainability is still not widely appreciated. Instead, governments on both sides of the Atlantic tend to downplay the relevance of today's deficits, which they allege are needed to stimulate growth.

Sidebar: Statistical And Ratings Appendix

Table 2 Sovereign Ratings Long-Term Fiscal Scenarios

	2005	2015	2025	2035	2050
Federal Republic of Germany (AAA/Stable/A-1+)					
General government debt (% of GDP)					
No change in government policy scenario	67.7	78.5	97.9	136.0	221.3
Balanced budget scenario*	67.7	45.4	37.7	47.8	78.0
No aging scenario¶	67.7	80.0	93.7	107.6	126.2
General government balance (% of GDP)					
No change in government policy scenario	(3.6)	(3.8)	(6.2)	(9.6)	(15.8)
Balanced budget scenario*	0.0	0.2	(1.5)	(3.3)	(5.7)
No aging scenario¶	(3.7)	(3.9)	(4.5)	(5.1)	(6.0)
Theoretical sovereign rating					
No change in government policy scenario	AAA	AAA	A+	Speculative	Speculative
Balanced budget scenario*	AAA	AAA	AAA	AAA	A
No aging scenario¶	AAA	AA+	AA	A+	A-

Republic of France (AAA/Stable/A-1+)					
General government debt (% of GDP)					
No change in government policy scenario	65.7	78.4	107.6	152.9	235.3
Balanced budget scenario*	65.7	49.2	53.7	69.9	93.4
No aging scenario¶	65.7	72.2	77.7	82.7	92.2
General government balance (% of GDP)					
No change in government policy scenario	(3.3)	(5.0)	(8.2)	(11.3)	(14.4)
Balanced budget scenario*	0.0	(1.4)	(3.4)	(4.5)	(4.7)
No aging scenario¶	(3.3)	(3.3)	(3.5)	(3.8)	(4.2)
Theoretical sovereign rating					
No change in government policy scenario	AAA	AA	Speculative	Speculative	Speculative
Balanced budget scenario*	AAA	AAA	AA+	AA	AA-
No aging scenario¶	AAA	AAA	AA+	AA+	AA
Republic of Italy (AA-/Stable/A-1+)					
General government debt (% of GDP)					
No change in government policy scenario	104.3	85.4	69.2	71.7	90.7
Balanced budget scenario*	104.3	66.8	47.7	52.0	66.9
No aging scenario¶	104.3	88.8	71.1	54.2	32.7
General government balance (% of GDP)					
No change in government policy scenario	(2.6)	(0.8)	(1.6)	(3.2)	(3.3)
Balanced budget scenario*	0.0	0.7	(1.1)	(2.7)	(1.9)
No aging scenario¶	(2.6)	(1.4)	(0.6)	0.2	0.1
Theoretical sovereign rating					
No change in government policy scenario	AA-	AAA	AAA	AAA	AAA
Balanced budget scenario*	AA	AAA	AAA	AAA	AAA
No aging scenario¶	AA-	AAA	AAA	AAA	AAA
United Kingdom (AAA)/Stable/A-1+)					
General government debt (% of GDP)					
No change in government policy scenario	41.7	48.9	66.3	99.9	159.6
Balanced budget scenario*	41.7	33.6	37.7	53.3	83.0
No aging scenario¶	41.7	41.3	40.8	41.3	39.5
General government balance (% of GDP)					
No change in government policy scenario	(1.9)	(3.2)	(5.2)	(8.0)	(10.5)
Balanced budget scenario*	0.0	(1.3)	(2.5)	(4.0)	(5.2)
No aging scenario¶	(1.9)	(1.6)	(1.6)	(1.6)	(1.5)
Theoretical sovereign rating					
No change in government policy scenario	AAA	AAA	AAA	Speculative	Speculative
Balanced budget scenario*	AAA	AAA	AAA	AA+	AA+
No aging scenario¶	AAA	AAA	AAA	AAA	AAA

United States of America (AAA/Stable/A-1+)					
General government debt (% of GDP)					
No change in government policy scenario	64.8	74.0	101.0	151.3	239.3
Balanced budget scenario*	64.8	47.6	49.3	72.0	119.8
No aging scenario¶	64.8	70.5	76.3	83.8	93.1
General government balance (% of GDP)					
No change in government policy scenario	(3.7)	(4.9)	(8.5)	(12.3)	(16.9)
Balanced budget scenario*	0.0	(1.1)	(3.6)	(6.1)	(8.9)
No aging scenario¶	(3.7)	(3.7)	(3.9)	(4.3)	(4.7)
Theoretical sovereign rating					
No change in government policy scenario	AAA	AAA	BBB+	Speculative	Speculative
Balanced budget scenario*	AAA	AAA	AA+	A	Speculative
No aging scenario¶	AAA	AAA	AA+	AA+	AA

*The "balanced budget" scenario assumes that the general government balances its budget in 2005 and keeps the fiscal stance (adjusted primary surplus, see text for explanations) constant thereafter. In other words, this scenario depicts the fiscal effect of aging in isolation. ¶The "no aging" scenario assumes that incremental age-related government spending is zero in 2005-2050. In other words, this scenario captures in isolation the effect of the weak fiscal starting position.