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Briefing Paper

Center for Economic and Policy Research

**Things That Will Happen Before Social Security
Faces a Shortfall**

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Executive Summary

The Congressional Budget Office (CBO) projects that Social Security will first face a shortfall in the year 2052.¹ Up until that year, Social Security is projected to be able to pay all scheduled benefits. After 2052, it is projected to be able to pay 80 percent of scheduled benefits, since scheduled benefits rise with wage growth, the payable benefit after 2052 will still be more than 30 percent larger than the benefits received on average by current retirees.

Many political figures and commentators have argued that this projected shortfall poses a serious problem for the country, or even a crisis. The definition of crisis is obviously subjective, but it is worth noting other issues that the country will have to deal with in the next 47 years, which are receiving less attention than the projected Social Security shortfall. Those who argue that it is important to address the projected Social Security shortfall now must implicitly believe that this shortfall is more pressing than these other issues that are being largely neglected.

Based on current trends, we can expect that by 2052:

- **Health Care** -- Annual spending on healthcare will have increased by an amount equal to 12 percentage points of GDP. This would imply an increase in annual healthcare spending of almost \$5,000 per person (measured at the 2005 level of GDP).
- **Prescription Drugs** -- Annual spending on prescription drugs will have increased by an amount equal to 2.7 percentage points of GDP. This would imply an increase in annual spending of \$1000 per person (measured at the 2005 level of GDP).
- **Housing** -- The housing bubble will have burst, destroying more than \$5 trillion in bubble wealth created by the temporary run-up in home prices. This translates into a loss of \$17,000 per person.
- **The Falling Dollar** -- The dollar will have declined by 30 percent or more against the currencies of U.S. trading partners. This will add more than 2.0 percentage points to the annual rate of inflation and reduce annual consumption by approximately \$2,000 per person.
- **The Criminal Justice System** -- The number of people in jail or prison will have increased to almost 7 million, with the government spending an additional 3.1 percentage points of GDP on the criminal justice system. This projected increase in spending on criminal justice would be equal to \$310 billion a year measured at the 2005 level of GDP or \$1,000 per person.

¹ The Social Security trustees put 2041 as the date at which the program will first face a shortfall. In contrast to the non-partisan CBO, four of the six trustees are political appointees of President Bush.

- **The U.S and the World (China)** -- China's economy will have grown to be more than twice as large as the size of the U.S. economy. If it spends the same share of its GDP on the defense as the CIA currently estimates, then China's defense budget in 2052 will be four to six times the level of defense spending that CBO projects for the U.S. in that year.
- **The U.S and the World (India)** -- India's economy will have grown to be one and a half times as large as the size of the U.S. economy. If it spends the same share of its GDP on the defense as the CIA currently estimates, then India's defense budget in 2052 will be three times the level of defense spending that CBO projects for the U.S. in that year.
- **Animal and Plant Extinctions** -- Tens of thousands of species will have become extinct, most of them due to human impact such as oil and mineral extraction, pollution and deforestation.
- **Climate Change** -- The earth's temperature will have risen by between 1.0 and 4.0 degrees, causing rising sea levels, melting glaciers, and spreading of tropical diseases into temperate areas.

For the most part, these other trends are receiving almost no attention from either political leaders or the media. Presumably, these opinion leaders view developments like soaring health care costs or plunging home prices as being less consequential than the projected shortfall in Social Security in 2052. It is nonetheless worth noting these trends, since others may assess their importance relative to the projected Social Security shortfall differently.

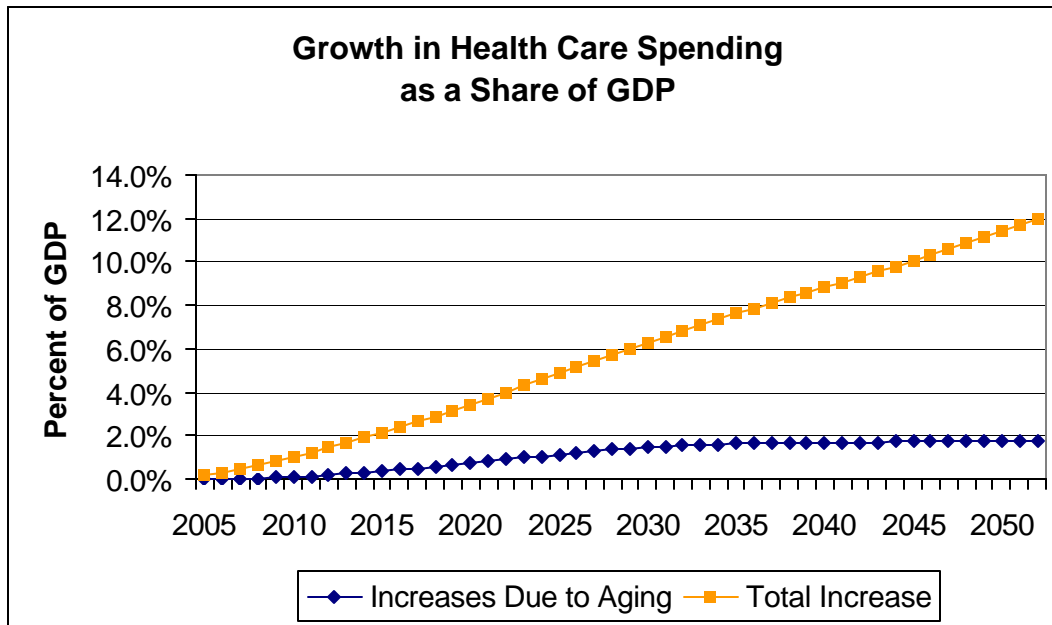
I. Excess Healthcare Spending Will Cost \$25.2 Trillion

The United States already spends more than twice as much per person on healthcare as the average for other rich countries. It receives no obvious benefit from its high spending, since it ranks near the bottom in life expectancy and other measures of health outcomes. However, healthcare costs in the United States are projected to rise rapidly in the decades ahead, imposing a substantial burden on both the private and public sectors.

Projections from the Center for Medicare and Medicaid Services show that the increased share of health care spending in GDP between now and 2052 will cost \$25.2 trillion, compared with a scenario where health care spending remained constant as a share of GDP. The vast majority of this projected increase in spending is attributable to rising per person health care costs, the aging of the population is responsible for less than 20 percent of the projected increase in costs.

Figure 1 shows the projected increase in the share of GDP going to health care expenditures, as well as the portion of this increase that is attributable to the aging of the population.

Figure 1



Source: Center for Medicare and Medicaid Services and authors' calculations, see appendix.

The projected increase in health care spending measured as a share of GDP by 2052 is more than 12 percentage points. This increase in health care spending would be equivalent to more than \$1.4 trillion a year, given 2005 GDP, or nearly \$5,000 for every person in the country.

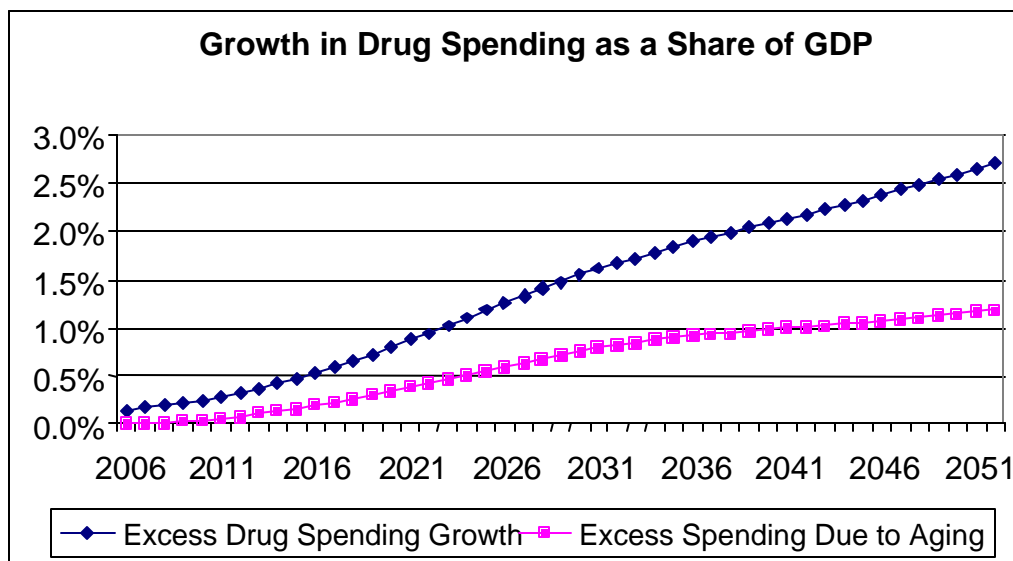
II. Excess Prescription Drug Spending Will Cost \$5.9 Trillion

Drug spending is the fastest growing component of health care costs. Per person drug expenditures have been rising at a rate that is close to 3.0 percentage points above the overall rate of inflation. The United States already pays far more for prescription drugs than any other country in the world. If current trends continue, then the gap between drug prices in the United States and the rest of the world will grow substantially through the next half century.

According to the projections from the Congressional Budget Office, rising drug prices will cost the country \$5.9 trillion by 2052, compared with a scenario in which drug costs stayed constant as a share of GDP. While the aging of the population is an important factor in this projected increase in drug costs, more than half of the increase is attributable to higher per person drug costs, not the aging of the population.

Figure 2 shows the projected rise in drug expenditures as a share of GDP until 2052. It shows the overall increase in the share of GDP devoted to spending on drugs and the portion of this increase that is due to the aging of the population.

Figure 2



Source: Congressional Budget Office and authors' calculations, see appendix.

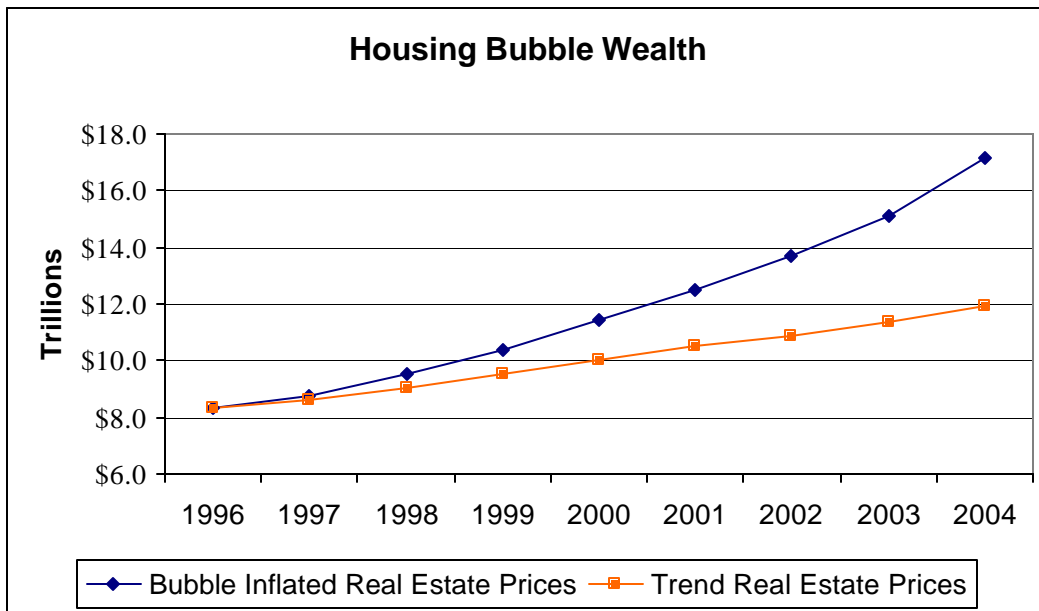
Drug spending as a share of GDP is projected to rise 2.7 percentage points by 2052. This increase in drug costs would be equal to \$320 billion a year at the 2005 level of GDP, more than \$1,000 per person.

III. The Housing Bubble Will Burst, Destroying \$5.2 Trillion in Housing Wealth

In 1996, house sale prices began to rise substantially faster than the overall rate of inflation. This run-up in housing prices has continued for the last nine years. During this period, home sale prices have risen by 44.2 percent after adjusting for inflation. This sort of run-up in home prices is without precedent in U.S. history, typically home sale prices move roughly at the same pace as the overall rate of inflation. Home sale prices have also diverged from rents, which have largely kept even with the rate of inflation, indicating that there are no fundamental factors pushing up the price of housing.

The more obvious explanation is that the United States, like Japan in the eighties, had a real estate bubble following alongside its stock bubble. While in Japan the two deflated more or less together, the deflation of the stock bubble, accompanied by near record low mortgage interest rates, appears to have fueled the housing bubble. Figure 3 shows the growth in housing bubble wealth since 1996.

Figure 3



Source: OFHEO, BLS, and author's calculations, see appendix.

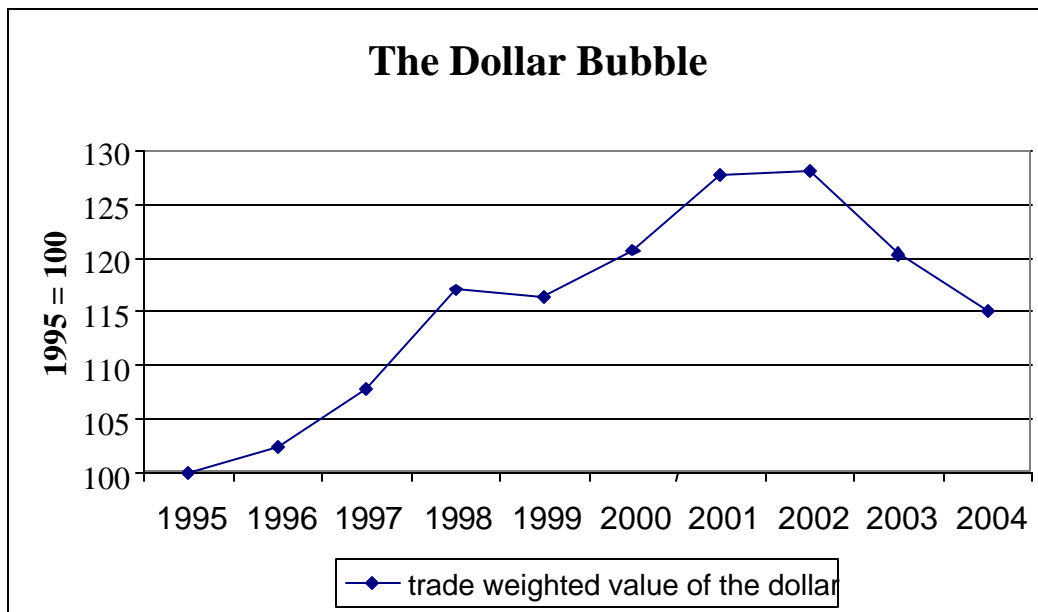
By the end of 2004, the difference between residential housing valued at current prices and the longer trend rate of price growth was more than \$5.2 trillion, more than \$17,000 for every person in the country. The collapse of the housing bubble is virtually certain to lead to a recession, and quite likely a very serious one. It will also destroy much of the wealth of the baby boom cohort that is on the edge of retirement.

IV. The Value of the Dollar Will Fall by Approximately 30 Percent

In the mid-1990s, the value of the dollar began to rise against other currencies, in part due to the effect of foreign investors opting to invest in the U.S. stock market bubble. The upward trend accelerated in 1997, as investors around the world sought the safety of the dollar in the wake of the financial uncertainty created by the East Asian financial crisis and subsequent crises in Russia, Brazil, and Argentina.

While the collapse of the stock bubble dimmed the enthusiasm of private investors for the dollar, their demand has been largely replaced in the last few years by demand from foreign central banks. These central banks are buying up dollars in a deliberate effort to sustain a high dollar, and thereby preserve a strong market for their goods in the United States. (A high dollar makes foreign goods cheaper in the United States). Figure 4 shows the rise in the value of the dollar since 1995.

Figure 4



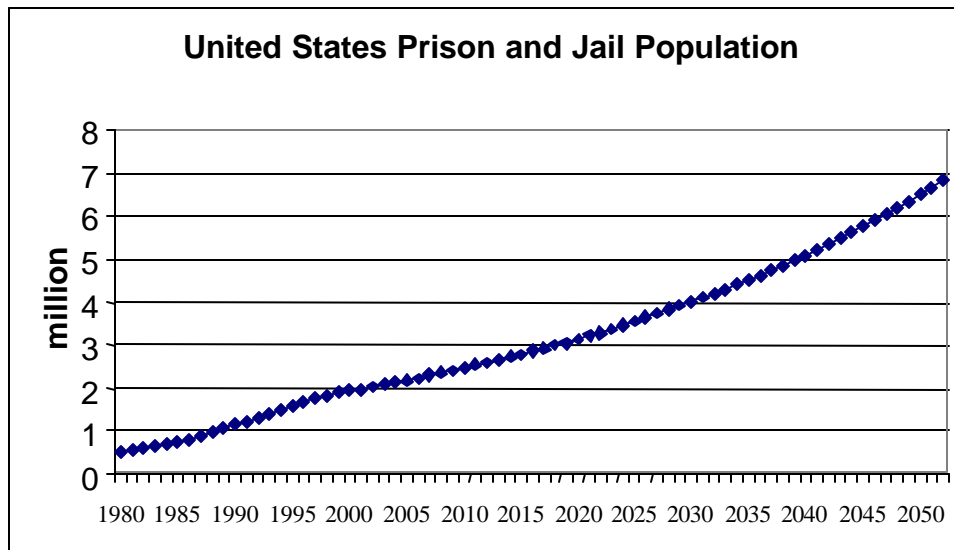
Source: Economic Report of the President, 2005.

The over-valued dollar has led to a record trade deficit, since it has made imports very cheap and U.S. exports very expensive in other countries. In the first quarter of 2005, the trade deficit was more than \$700 billion, approximately 6.0 percent of GDP. To support this deficit, the United States is selling off its capital stock at an unsustainable pace. The dollar will eventually have to fall by approximately 30 percent to bring the trade deficit down to sustainable level. This will lead to much higher import prices, adding approximately 2.5 percentage points to the annual rate of inflation. In addition, the movement toward balanced trade will reduce consumption by more than \$2,000 per person.

V. The Number of People Incarcerated Will Increase to Almost 7 Million

Since 1980 there has been a rapid increase in the number of people in prisons or jail. The number of people incarcerated more than quadrupled between 1980 and 2003, from 504,000 in 1980 to 2,086,000 in 2003. The growing incarceration rate is largely attributable to longer sentences and more stringent parole guidelines. There has been a slower rate of growth in the prison and jail population in the last few years, and it is reasonable to believe that the extraordinary growth rate of the eighties and early nineties will not return, but this possibility cannot be ruled out. Figure 5 projects the growth path for the combined prison and jail population, assuming that the slower growth rate from 1999 to 2003 is maintained.

Figure 5



Source: Bureau of Justice Statistics and authors' calculations, see appendix.

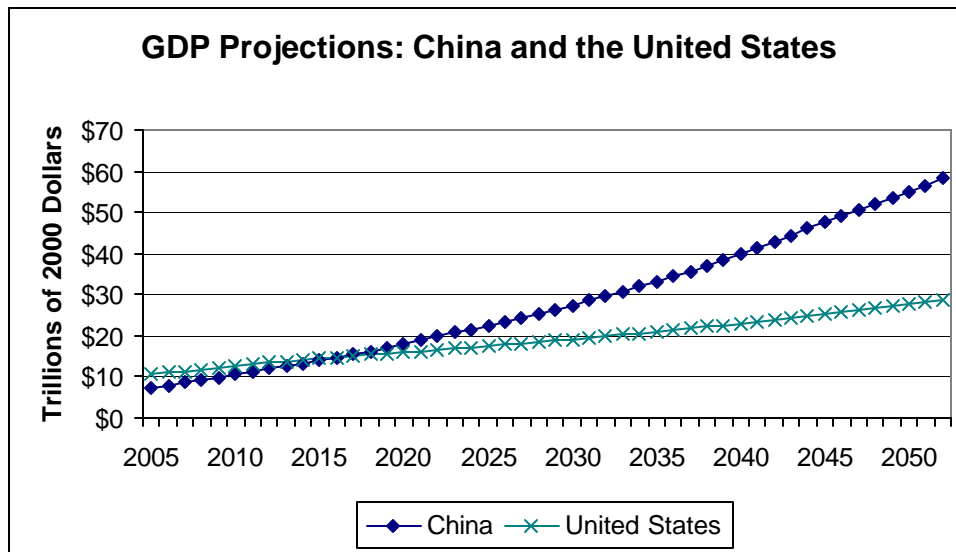
The annual growth rate of the incarcerated population over this four year period was 2.5 percent, this down from a 6.4 percent growth rate for the whole period from 1980 to 2003. If this lower growth rate is maintained for the next 47 years, then 6.8 million people will be incarcerated in the United States in 2052. Projecting from the 1999-2003 growth rate, 10.2 million people will be on probation and 2.1 million will be on parole. Spending on the criminal justice system will have risen to 4.5 percent of GDP, the equivalent of \$540 billion a year given the size of the economy in 2005.

VI. China's Economy Will Grow to be More than Twice the Size of the U.S. Economy

China's economy is already more two-thirds of the size of the U.S. economy. Many analysts fail to recognize the true size of the Chinese economy because they use a currency conversion measure of GDP. Economists generally accept that purchasing power parity (PPP) is a better way to measure GDP. A PPP measure of GDP calculates an economy's output as though the prices of goods and services are the same everywhere. By this measure, China's GDP (including Hong Kong) is already more than \$8 trillion.

Figure 6 shows the projected path for GDP growth in China and the United States. China's economy will first grow larger than the U.S. economy in 2016. Its growth is projected to continue to outpace growth in the United States through the rest of the century as its per capita GDP catches up to that of the United States. By 2052, China's economy will be more than twice the size of the U.S. economy.

Figure 6



Source: Penn World Tables, Goldman Sachs and authors' calculations, see notes.

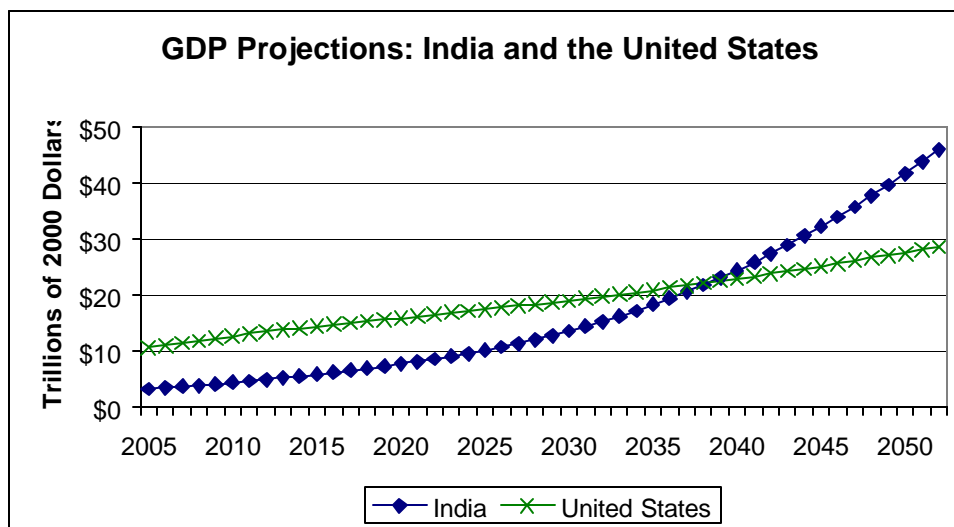
According to the CIA, China currently spends between 3.5 percent and 5.0 percent of its GDP on defense. If it continues to spend the same share of its GDP on defense, then its military budget will be between 5 and 7 times as large as the baseline U.S. military budget projected by the Congressional Budget Office for 2052. This would mean that the United States would have to adjust to a situation in which it is neither the world's dominant economic power nor the dominant military power.

VII. India's Economy Will Grow to Be More than 60 Percent Larger than the Size of the U.S. Economy

India's economy is currently about one-third of the size of the U.S. economy. Many analysts fail to recognize the true size of the Indian economy because they use a currency conversion measure of GDP. Economists generally accept that purchasing power parity (PPP) is a better way to measure GDP. A PPP measure of GDP calculates an economy's output as though the prices of goods and services are the same everywhere. By this measure, India's GDP is approximately \$3.2 trillion.

Figure 7 shows the projected path for GDP growth in India and the United States. India's economy will first grow larger than the U.S. economy in 2038. Its growth is projected to continue to outpace the U.S. economy through the rest of the century as its per capita GDP catches up to that of the United States. By 2052, India's economy is projected to be more than 60 percent larger than the U.S. economy.

Figure 7



Source: Penn World Tables, Goldman Sachs and authors' calculations, see notes.

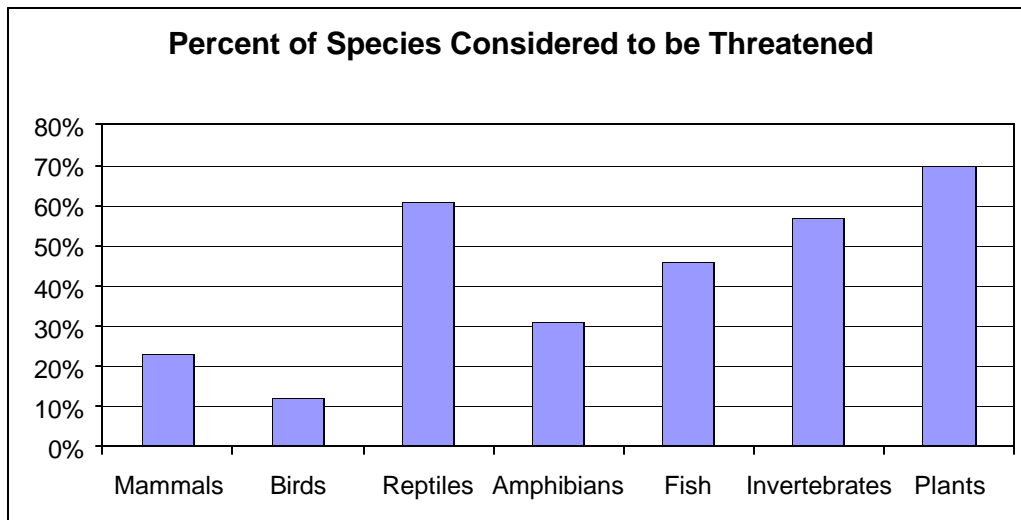
According to the CIA, India currently spends 2.5 percent of its GDP on defense. If it continues to spend the same share of its GDP on defense, then its military budget will be almost 3 times as large as the baseline U.S. military budget projected by the Congressional Budget Office for 2052. This would mean that the United States would have to adjust to a situation in which it is neither the world's dominant economic power nor the dominant military power.

VIII. Tens of Thousands of Animal and Plant Species Will Become Extinct

Pollution, the introduction of foreign species to new habitats, and the loss of habitat are leading to the extinction of thousands of plants and animal species every year. Many of the animals that have been a basis of folklore for our ancestors for thousands of years, including species of bears, wolves, and whales are at risk of extinction. Our children and grandchildren will never have the opportunity to see the animals that become extinct. While millions of species of plants and animals have become extinct through time, the current rate of extinction is several hundred times faster than the natural rate due to human impacts.

Figure 8 shows the percentage of species by major category that is considered threatened by the International Union for the Conservation of Nature and Natural Resources. If governments do not take measures to ensure that the economy develops along a more environmentally friendly path, then a large portion of these threatened species are likely to be extinct in the not very distant future.

Figure 8



Source: International Union for the Conservation of Nature and Natural Resources, 2004.

IX. The Earth's Average Surface Temperature Will Have Increased by 1.0 to 4.0 Degrees

Virtually all climate experts agree that the earth's temperature has been rising over the last 150 years as a result of human activity. The main factors have been the emission of large amounts of carbon dioxide and other gases, which trap heat within the atmosphere, and the destruction of forest and vegetation that had previously absorbed much of these emissions. If current trends continue, it is projected that global temperatures will rise between 1-4 degrees Fahrenheit in the next 50 years.

Global warming is likely to have a wide variety of impacts on the environment, most of which are not yet well understood. Higher global temperatures will lead to a melting of the polar ice caps, which in turn will raise ocean levels by approximately half a foot over the next 50 years. This will have a large impact on coastal regions throughout the world, worsening flooding in many areas.

The rapid rise in the earth's temperature is also likely to lead a major displacement of species. Rising world temperatures will allow species to move further away from the tropics, with unpredictable consequences for indigenous species.

Global warming is also likely to be associated with more variability in the weather and more incidents of extreme weather, as long established weather patterns are disrupted. This could mean more extraordinarily hot summers or unusually cold winters in many parts of the world, in addition to a greater incidence of severe storms.²

² This discussion is taken from the Intergovernmental Panel on Climate Change, 2004, IPCC Working Group I Third Assessment Report -- *The Scientific Basis*, [<http://www.gcrio.org/OnLnDoc/pdf/wg1spm.pdf>].

Conclusion

Politicians have chosen to make the Social Security shortfall projected for 2052 a major item on the national agenda. While Social Security expenditures are projected to eventually drain its trust fund, there are other trends that will have a larger impact on the economy and society over the next 47 years if they continue. While the politicians who have chosen to focus attention on the projected Social Security shortfall presumably consider it a larger problem than the prospect of spending an additional \$25 trillion on health care costs, losing \$5 trillion in housing bubble wealth, or seeing the earth's climate seriously disrupted, it is possible that other people would have different priorities. It is important that the public be aware of the other long-term problems facing the country so that it can set its own priorities.

Appendix

Figure 1 – The projections for health care cost growth are derived by calculating a projection for the per person growth in health care costs based on the projected growth in Medicare payments as shown in the *2003 Annual Report of the Federal Health Insurance Trust Fund* and the projected growth in the size of the over 65 population from the 2005 Social Security trustees report (Table V.A2). It is assumed that per person health care costs for the population as a whole grow at the same rate as person Medicare costs for the over 65 population. The calculation of the impact of aging assumes that per person costs for both the under 65 and over 65 population rise at the same rate as per capita GDP, with the only increase in costs then attributable to the increase in the size of the over 65 population.

Figure 2 – The growth in prescription drug spending is derived from the Congressional Budget Office's (CBO) projections for the growth in per person drug expenditures. This is obtained from Scenario 2 of the 2003 *Long-Term Budget Outlook*. The per person growth rate was obtained by first calculating the difference between Medicare drug costs with the Medicare prescription drug act in place and the cost without the act. This growth was then divided by the projected increase in the size of the over 65 population from the 2005 Social Security trustees report, Table V.A2. Drug spending was apportioned between the over 65 and under 65 population based on the CBO estimate of drug spending by people over age 65, and the total drug spending for 2002 from the CMS Health Cost Tables.³ It was assumed that the per person costs for both the over 65 and the under 65 population grow at the rate projected by CBO. The calculation of the share of the cost growth attributed to aging, assumes that per person drug spending keeps pace with GDP growth, but the share of the population over age 65 follows the path projected in Table V.A2 from the Social Security trustees report.

Figure 3 – The calculation of the amount of bubble created housing wealth compares the difference between the value of residential housing at the end of the 4th quarter of 2004, as estimated by the Federal Reserve Board (Flow of Funds, Table B102, line 4), and what the value would have been if house prices had risen at the rate of inflation (as shown by the CPI-URS) instead of rising at the rate shown by the Office of Federal Housing Enterprise Oversight's House Price Index.

Figure 4 – The trade weighted value of the dollar using the "broad index" from the *2005 Economic Report of the President*, Table B110 is shown. The assessment of the unsustainability of the trade gap can be found in Baker (2004), "Dangerous Trends: The Growth of Debt in the U.S. Economy," Center for Economic and Policy Research, [http://www.cepr.net/publications/debt_trends.htm]. The increase in the size of the inflation assumes a 30 percent fall in the dollar with a 50 percent pass through rate, which

³ Data on drug spending by people over age 65 can be found Congressional Budget Office. 2002. "Testimony on Projections of Medicare and Prescription Drug Spending, March 2002," Testimony before the Committee on Finance, U.S. Senate, Congressional Budget Office. Total spending on prescription drugs can be found in Center for Medicare and Medicaid Services (CMS) Projections for National Health Expenditures, Table 3 [<http://www.cms.hhs.gov/statistics/nhe/projections-2003/t3.asp>].

means that import prices will rise by an average of 15 percent. Since imports currently comprise close to 16 percent of GDP, this implies an increase in the overall inflation rate of approximately 2.4 percentage points. The estimate of the impact of a declining trade gap on living standards, assumes that the annual trade gap will fall by approximately \$600 billion to bring it down to a sustainable level. This is slightly more than \$2,000 per person.

Figure 5 – The growth in the number of people incarcerated in the United States is shown. These projections were made assuming that the annual growth rate of the period from 1999-2003 (2.45 percent) continues through the year 2052. The projections for the number of people on probation and parole also assume the growth rate for these four years persists until 2052. This data is taken from the Bureau of Justice Statistics Correctional Surveys, “Correctional Populations In the United States,” 11-07-04. Data on spending is projected by using the growth rate from 1997 to 2001 (the last four years available), which is obtained from Bureau of Justice Statistics estimates in “Direct Expenditures by Level of Government,” [<http://www.ojp.usdoj.gov/bjs/glance/tables/expgovtab.htm>].

Figure 6 – The growth projections for China’s GDP use the 2000 estimate for purchasing power parity GDP (combing China and Hong Kong) from the Penn World Tables (Table 6.1) and project forward the growth rate of GDP from Goldman Sachs 2004, “Dreaming With the BRICS: The Path to 2050,” [<http://www.gs.com/insight/research/reports/report6.html>]. The estimates for growth for the United States GDP and its defense budget are taken from the CBO 2003, “The Long-term Budget Outlook.”

Figure 7 – The growth projections for India’s GDP use the 2000 estimate for purchasing power parity GDP from the Penn World Tables (table 6.1) and project forward the growth rate of GDP from Goldman Sachs 2004, “Dreaming With the BRICS: The Path to 2050,” [<http://www.gs.com/insight/research/reports/report6.html>]. The estimates for growth for the United States GDP and its defense budget are taken from the CBO 2003, “The Long-term Budget Outlook.”

Figure 8 – The percentage of each species category that is considered threatened is taken from the International Union for the Conservation of Nature and Natural Resources, [<http://www.redlist.org/info/tables/table1.html>].