

Demographic Pressures on European Unity

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MANY OF THE European countries having severe budgetary problems during the Great Recession that began around 2008 are still in fairly good shape from a demographic point of view. Countries like Greece, Hungary, and Spain have relatively few people of dependent ages—and many of prime working ages—and, current troubles aside, are benefiting from a similar demographic dividend to that experienced in the past by Japan and Taiwan (Bloom and Canning 2008). As the century progresses, however, the countries suffering most from today's recession will in many cases face their greatest challenges from population aging. The demographic pressures on European unity will increase sharply.

In the short term, changes in fiscal fortunes are determined by the business cycle. In the longer term, population aging will necessitate a host of reforms such as later ages of retirement, health care cost controls, and higher taxes. Here we take advantage of new measures of the economic costs of population aging to quantify the fiscal pressures on European unity.

The classic demographic dependency ratio compares the number of children and elderly to those of working age. Population aging will reduce the fraction of children and greatly increase the share of elderly. In Europe, the old-age dependency ratio will double from about 26 elderly per 100 working-age individuals to about 53 per 100 in 2060, according to Eurostat forecasts (Eurostat 2013c).

Thanks to teams of researchers working on the National Transfer Accounts project (NTA), it is possible to provide a more precise and meaningful measure of population aging for national budgets (Lee and Mason 2011). Using surveys and national accounts, the NTA researchers have estimated how much each person pays in taxes and receives in government expenditures by age. We have used these NTA age schedules of taxes and benefits to calculate the extent to which a changing demographic age structure can be expected to increase future European government budget deficits. This “demographic deficit” is created simply by changes in the population age

structure. What we provide is not an economic forecast but rather an estimate of how much policies will need to adapt to demographic change.

Figure 1 shows the demographic deficits across Europe in 2010 and in 2060. The results are obtained by applying the average European NTA profiles to the age structure of the largest 20 EU countries in 2010 and 2060.¹ Taxes and benefits were calibrated so that the EU as a whole would have a balanced budget in 2007, before the onset of the recession.

We see in Panel A of the figure that the countries coping best with the economic recession (e.g., Germany and Sweden) are actually countries with rather unfavorable demography. Sweden, according to its age structure, should be running a deficit of about 5 percent of government spending. A combination of early fertility declines (e.g. Sweden and Denmark) and temporary postwar baby booms (e.g., UK) means that these populations are relatively old by today's standards. On the other hand, the countries facing the most severe budgetary pressures today (Greece, Spain, Ireland, and all of Eastern Europe)² have relatively favorable demography. Fertility decline occurred late in these populations, so there are still many people of working age. In most of these countries, extremely low fertility in the past two decades means that the budgetary pressures from young people are also low.

As Panel B of the figure shows, there will be a dramatic reversal of demographic fortunes in Europe over the next 50 years. Over this period of time, there is relatively little uncertainty in demographic forecasts. Longevity increases may be slightly slower or faster than forecast, fertility may be slightly higher or lower, and migration is particularly unpredictable, but most population aging will occur as a result of the aging of people who have already been born. As a result of such aging, demographic pressures on budgets will increase substantially throughout Europe. In the absence of changes in taxes and spending, the average deficit would be on the order of 22 percent.

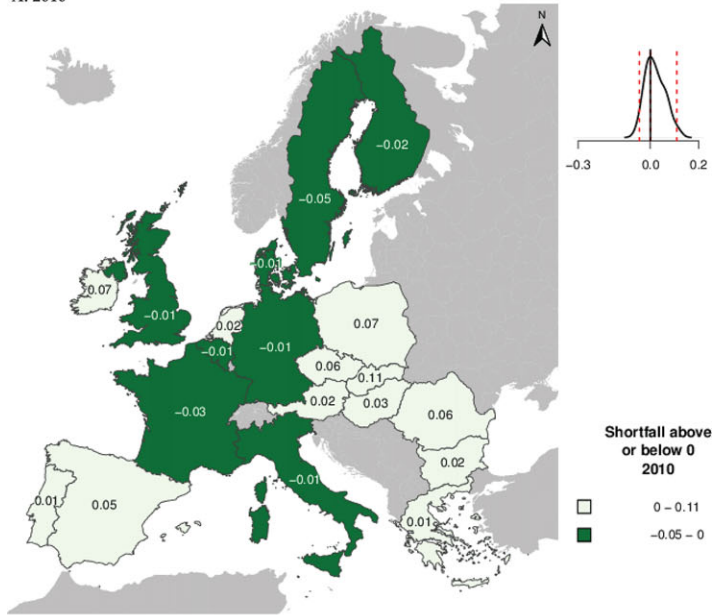
The shading of the map highlights the reversing demographic fortunes of EU members. The countries with the least favorable demography in 2010 (dark area) tend to have the most favorable demography in 2060 (light area), while most countries experiencing a demographic dividend today will go sharply into demographic deficit in the future. Among the oldest populations in 2060 are those most severely affected by today's Eurozone debt crisis and accompanying fiscal austerity.

What is behind divergent population aging?

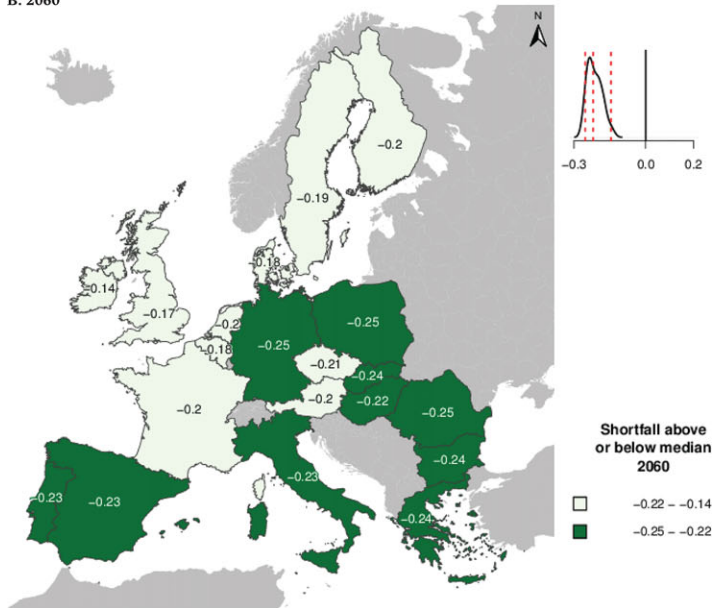
Population aging is the result of increasing longevity and lower birth rates. Longevity is forecast to increase from a Europe-wide average of 75 years today to 85 years by 2060. In the twenty-first century, these additional years of life are mostly being added at the oldest ages, rather than in

FIGURE 1 Demographic deficits in 2010 and 2060: Fiscal balance as a proportion of government spending

A. 2010



B. 2060



NOTE: Positive values indicate government surplus and negative values indicate government deficits, according to current age-specific public tax and transfer schedules.
 SOURCE: Authors' calculation with average of age-specific tax and benefit schedules from the NTA project and population projections from Eurostat.

childhood as was the case in the nineteenth and first part of the twentieth century. By contrast, the fertility histories and forecast futures of the European countries have been and are expected to be divergent. The baby boom was more pronounced in some countries—notably the United Kingdom, where it is already a source of population aging in 2010. Fertility decline occurred earlier in other countries like Germany, Sweden, and Denmark. And while fertility has largely recovered in Scandinavia and France, it remains low in German-speaking countries. Very low fertility was experienced only in recent decades, but in dramatic fashion in Eastern Europe and the Mediterranean. Current fertility rates in Europe are strongly correlated with economic growth (and gender roles), with the countries hardest hit by the Great Recession seeing fertility rates pushed downward as young people postpone childbearing and forego having the family sizes they would have had in a better economy (Goldstein et al. 2013).

Migration can in theory slow population aging somewhat, but current movements suggest that migration will further exacerbate countries' weakening economic fortunes. Since the onset of the debt crisis, labor migration from outside Europe to Spain, Italy, and Greece has slowed and even reversed, while migration within Europe has been away from the countries in crisis toward Scandinavia and Germany (Eurostat 2013a).

The new waves of refugees from the Middle East and Africa are unlikely to change the long-term forces of population aging we describe here. The Eurostat forecasts already assume total net migration to the EU of over 55 million through 2060, a figure that would not change significantly over this long time frame even if millions of refugees from Syria and other hotspots were eventually to be admitted to the EU. Large flows of refugees would be unlikely to improve the fiscal situation and might worsen it somewhat (Ruist 2015). The fiscal consequences of refugee migrants of working age are likely to be less positive than for migrants within the EU, because of limitations placed on work permits and the expected lower earnings of many refugees. The fiscal costs of educating migrant children and of supporting their elderly members can also be high, as shown by the example of the United States (Smith and Edmonston 1997).

What policies can relieve pressure?

Adapting to population aging will require reducing the fiscal dependency of the elderly and increasing the productivity of the working-age population. Today's relatively young European countries have the farthest to go in terms of making policy changes. In contrast to say Sweden and Germany, countries with younger populations have not yet mandated reforms related to retirement and labor markets (Schwarz et al. 2014).

The differences between the fiscal balances for each country in the two panels of Figure 1 reveal the change in the demographic deficit from 2010

to 2060. For example, Romania would have to raise its tax rates or reduce government spending in order to overcome a change in its fiscal situation amounting to 31 percent of government spending. Germany will also age considerably, with an increase of 24 percentage points in its demographic deficit. Higher-fertility countries like Denmark, Sweden, France, and the UK face increases in their demographic deficits of 14 to 17 percentage points. If we customize the National Transfer Accounts to each country's retirement policy, the divergence caused by population aging appears even greater than when a unified age schedule is used.

Increases in tax rates clearly could reduce the demographic deficit by a substantial portion over the next 50 years. For example, for the period 1965–2000, OECD taxes increased from 25.5 to 35.2 percent of GDP, an increase of more than one-third in the tax burden. Even if taxes absorbed the entire 22 percentage point increase in Europe's demographic deficit, the average tax rate in Europe would remain below 45 percent of GDP, lower than the current rate in Sweden (OECD 2013).

For all countries, population aging will pose challenges to fiscal sustainability. Future budgetary destinies will crucially depend on political decisions to respond to inevitable demographic change. Possibilities include increases in retirement ages (Vaupel and Loichinger 2006), pension cuts, more efficient health care provision, and higher tax rates (Schwarz et al. 2014).

A crucial ingredient of future fiscal balance is investment in the productivity of young workers, particularly in countries facing the most rapid population aging. One way for a smaller number of workers to support an increased number of dependents is through economic growth and greater productivity. This is yet another reason why the high unemployment rates among the young and the long-term productivity repercussions of the crisis should be of concern (Scarpetta et al. 2010). The cuts to universities and other human capital investment in countries hit by today's recession (Bell 2013) pose a threat to increases in future productivity. According to the European University Association, Greece has cut public spending on higher education by more than 50 percent in real terms since 2008, Hungary by more than 40 percent, and Spain by nearly 20 percent (European University Association 2015). Although bank failures, Greek government debt, and unemployment fluctuations are the focus of short-term worries, in the longer term the productivity of the labor force will matter much more.

Without reforms and investments throughout Europe, there is the risk that fiscal pressures threatening European unity will increase greatly, with demography amplifying the European imbalances in the decades ahead. The current recession is acute, but the long-term picture of population aging represents an even greater fiscal challenge, akin to a fundamental but predictable change in the economic climate.

Notes

1 To produce a common age schedule, the average of NTA schedules estimated for Germany, Sweden, Spain, Hungary, Slovenia, Austria, UK, and Finland is applied to all countries. Taxes and benefits were calibrated to create a European-wide bal-

anced budget in 2007, prior to the current recession.

2 Government budget deficits in these countries amount to around 10 percent of GDP in the most recent years (Eurostat, 2013b).

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