Depopulation and Ageing in Europe and Japan: The Hazardous Transition to a Labor Shortage Economy

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The arrival of the twenty-first century heralds a turning point for the postwar welfare state. Most of the advanced industrial democracies entered the new millennium with a record share of their populations in the working ages – 20 to 65. Yet, by 2010, tens of millions of postwar baby boomers will be streaming into retirement, and available labor forces in the European Union (EU) and Japan will never again be so large in our lifetimes.

This historic shift means that the problems of unemployment that dominated social thinking in the twentieth century will soon give way to the social crisis of labor shortages. Policies devised after World War II to allocate too few jobs among too many workers – generous unemployment, disability and retirement benefits together with labor regulations that sacrifice efficiency for stable employment – will be radically counterproductive in the new era of tight labor markets. Reforming these policies may become a task no less urgent than the upheaval that led to their rise in the first place.

Between 2000 and 2010, several industrial nations, including Germany, Japan, Austria, Spain, Italy, Sweden, and Greece, will for the first time in modern memory experience a contraction of their working populations. The century's second decade will see the EU and Japan enter a period of population decline lasting into the indefinite future. According to the U.S. Census Bureau, by 2030 the EU can expect to have 14 percent fewer workers and 7 percent fewer consumers than it does today. In Japan, over the same period, the number of workers and consumers are poised to decline by 18 percent and 8 percent respectively.

Ageing Recessions

The casual observer can be forgiven for regarding such trends with something less than alarm. After all, the general thrust of labor and social policy over the past two centuries has been to artificially tighten labor markets. In the future, naturally tightening labor markets may mean that unemployment will no longer be a problem; young people will find it easier to establish themselves in homes and jobs; and there will be fewer strains on the environment. Even the roots of poverty will be more easily eradicated in a world where every worker is needed and valued. Why should this be a cause for worry?

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The answer lies in the interaction between population change and the economy, on the one hand, and the economy and the tax base, on the other. Like it or not, our current economic and social organization depends on continued economic expansion. Without it, both government and private sector finances will become significantly more precarious. The most rapidly depopulating nations face the prospect of lengthy »ageing recessions« characterized by a vicious circle of falling demand, collapsing asset values, shrinking corporate profits, deteriorating house-hold and financial institution balance sheets, weakening currencies, and soaring budget pressures.

These stresses are sure to be transmitted to other countries through the global markets. Indeed, the fact that so many of the rich countries will experience them simultaneously suggests that the whole could be larger than the sum of the parts. Much as unconnected financial problems in Thailand, Korea, Indonesia, Russia, Brazil and other developing countries combined overnight to create the global financial crisis of the late-1990s, so too could the disparate pension and economic crises of the major industrial nations converge to create a global depression from which none of our welfare states will emerge intact.

For policy makers seeking to avoid such an outcome, understanding the linkages between the economy and population growth is an essential first step.

Labor markets and growth

One likely effect of the decline in working populations will be a slower economic growth rate. A nation's gross domestic product (GDP) is

merely a multiple of its working population times its average income. All things being equal, a decline in the number of workers translates into a decline in output. Over the past three decades, population growth in the industrial economies has accounted for between one-half and two thirds of the rise in GDP. The remainder has come from increases in »total factor productivity«, reflecting gains in labor and capital efficiency. The Organization for Economic Cooperation and Development (OECD) has estimated that labor force declines will subtract 0.4 percent a year from potential economic growth in the EU between 2000 and 2025, and 0.9 percent a year thereafter. In Japan, worker shortages will subtract 0.7 percent a year between 2000 and 2025, and 0.9 percent a year thereafter. The U.S., Canada, and Australia will see their labor supplies expand during this period. However, slowing labor force growth will cause their economies to grow more slowly as well.

Significantly, within the EU, the effects are likely to be highly uneven, with some countries much more vulnerable to ageing recessions than others. Italy and Germany could see their working age populations plunge by 47 percent and 43 percent respectively by 2050. In contrast, France and the United Kingdom can expect less drastic declines of 26 percent and 15 percent.

Population and aggregate demand

The decline in national populations after 2010 will add to these problems by adversely affecting consumer demand, asset values, corporate profits, and balance sheets. In mature markets such as autos and home appliances, sales are likely to shrink year after year for as far as the eye can see. Meanwhile, start-up companies will face greater risks in markets where population trends no longer enable new and existing enterprises to flourish in tandem. The prospect of overcapacity and stiff competition means that economy-wide profits and returns on investment will suffer. In an open global economy, the result will be capital outflows and weak currencies. One reason for the euro's steady decline against the dollar in 2001, despite the EU's stronger growth rate, may be that European firms are repositioning their assets in the U.S. in anticipation of better longrange growth. America's population is projected to be 46 percent larger by mid-century.

Home-buyers and housing wealth

Trillions of euros in property valuations could disappear over the next two decades. Because depopulation is characterized in its early stages by the shrinking of the youngest age groups, demand for products and services consumed by the young is the first to decline. In Germany, for instance, the cohort born during 1995-1999 is only 47 percent as large as the cohort born during 1970–1974. To date, shrinking numbers of children mainly have been a boon to household and governmental finances by reducing dependency costs. But soon, these declines will work their way into the household-forming populations. Over the next 20 years, the EU will experience a 20 percent falloff in its 25–44 age group; Japan, an 18 percent decline. Spain and Italy, with declines of 36 percent and 30 percent respectively, are sure to see a steep contraction of housing demand – which, in turn, can be expected to undermine real estate values and create both reverse wealth effects at the household level and balance sheet weakness among financial institutions that hold mortgage-backed assets.

Collapsing real estate prices were instrumental in triggering Japan's ongoing financial crisis, as well as the savings and loan meltdown that rocked U.S. financial markets in the late-1980s. Significantly, in fast-ageing countries like Germany and Japan, construction sector bankruptcies already are on the rise. Like the proverbial canary in the mineshaft, builders are hypersensitive to population decline.

Tax increases and recession

While countries facing depopulation will need to dramatically boost their tax take in the coming years, they will face grave risks in the process. As growth rates slow, tax increases may prove counterproductive. In Japan, an abortive 1996 consumption tax hike is widely blamed for pushing the economy back into its current slump. As the economy has swooned, tax revenues have disappointed, leaving the government with a fiscal 2001 budget deficit approaching ten percent of GDP – and a national debt headed for 140 percent of GDP. Yet by 2010 Japan must boost its tax revenues by an estimated fifteen percent of GDP to cover rising old-age benefit costs. If it fails to do so, the markets will come to regard Japan as a default risk, and impose risk-premiums that could boost its debt service costs by several percent of GDP. This, in turn, would necessitate large

spending cuts. If Japan cannot find a way out of this debt trap, its living standards may fall well below current levels, and stay there for generations.

The EU's more rapidly depopulating welfare states could face a similar problem. Several must raise significant revenues in the near term. With median retirement ages in the late-fifties, European baby boomers will begin drawing pensions in large numbers by 2005. However, as in Japan, tax hikes may not be a viable option. Italy, Germany, and France have reduced taxes in recent years as part of a program to stimulate growth. Reversing course could have precisely the wrong effect at the worst possible time. European nations must soon confront the paradox that efforts to boost tax rates could yield less, not more, revenues.

Productivity and economic growth

Countries with shrinking labor supplies will need to achieve sustained productivity growth if they are to avoid long, potentially destabilizing ageing recessions. After 2025, annual productivity growth in the EU-15 and Japan will need to average one percent or better in order to prevent recession. In countries like Italy, Spain, and Germany, efficiency gains will need to be even more robust. At first glance, this hardly seems problematic: productivity growth in recent decades has averaged 1.4 percent a year. Yet, there is a strong connection between productivity and economic growth. Firms typically refrain from making productivity enhancing investments in recession-like conditions, where overcapacity, excess inventory, and asset deflation combine to reduce returns on investment. Instead, capital will tend to move abroad in search of higher returns. Managers will especially seek out markets where the tax climate and labor supply present the fewest uncertainties. This suggests that productivity growth could be a major challenge in the EU and Japan.

Our current economic and social organization depends on continued economic expansion.

Finally, there is the question of whether ageing workforces will prove capable of embracing new forms of organization and work. Increasingly, boosting productivity requires the adoption of new technology and a shift toward the »knowledge economy«. Yet older workers are thought to be less creative and adaptable than their younger counterparts, and frequently lack the skills needed in high-tech occupations.

Fiscal crises and investment

The social institutions most likely to experience strain from the twin trends of ageing and depopulation are the pension and health systems that comprise the crown jewels of the postwar welfare state. These are by far the largest source of public expenditure in the industrial countries. And they are the programs most likely to be affected by the coming explosion in old-age dependency. Even if growth in the industrial nations remains at, or near its potential, most governments can look forward to constantly rising fiscal pressures, as ever-smaller workforces are called upon to support ever-larger dependent populations. Popular resistance to tax increases and concerns about preserving economic growth may lead governments to neglect future-oriented investments in the infrastructure, education and training – a course that could weaken long-term growth. Or they could lead to large budget deficits that could divert scarce future savings to rising debt service costs.

Retirement and saving

As Japan has discovered, when a large share of the population is in its retirement-planning years (34 percent are aged 40–64 versus 27 percent in the U.S.) savings rates can rise to levels that depress consumption and economic growth. In a phenomenon known as »Ricardian equivalence«, budget deficits have fueled a rising concern about Japan's economic future, causing its ageing workforce to respond through precautionary saving. Under these conditions, traditional monetary and fiscal responses – cutting interest rates and running deficits – will merely trigger a stronger savings response.

However, in most countries, the retirement of the baby boomers is likely to have the opposite effect. One OECD analysis found that savings rates in the industrial world could fall by as much as eight percent of GDP by the late 2020s. How this occurs will depend on each nation's fiscal and pension policies. In countries like the United Kingdom, where retirees depend heavily on personal savings to finance their old age, ageing populations will be spending down their life savings faster than smaller younger generations can replace them. In countries like Germany, where intergenerational transfer payments cover the bulk of retirement costs, a combination of large deficits and tax hikes on youth could also depress national savings. While Germany could always cut benefits, that would just force retirees to draw down their savings at a faster rate. Either way, except where Ricardian equivalence comes into play, rising numbers of baby boomer retirees will tend to depress national savings rates.

Global shocks and benefit sustainability

Aging and depopulation will make the industrial world more vulnerable to global economic shocks in the future. The oil shocks of the 1970s produced a deep global recession in which public debt levels in the major industrial countries more than doubled. In the less severe global slump that followed the Persian Gulf crisis of 1990, combined public debt in the EU and Japan rose by more than half. Today debt levels in Japan and several major EU countries are so high that they could not double again without triggering severe reactions in the markets. With dependency costs set to rise rapidly, and growth already at risk, the industrial countries will be poorly positioned to weather the next global downturn – whether caused by wars, energy crises, or fallout from the kind of financial crisis that may very well be on Japan's horizon. As the former communist countries discovered in the early 1990s, at some point, the ability of the state to bear risks collapses. And when that happens, it is the vulnerable populations who suffer the most.

Challenges to the Welfare State

Whatever its humanitarian intent, the modern welfare state was, at heart, a pragmatic response to the social upheaval caused by the large-scale unemployment of the early twentieth century. In order to create prosperity, capitalism required stability. Significantly, the coming era of labor shortages means that involuntary unemployment will no longer be a source of impoverishment and instability. This development threatens to deprive the welfare state of its pragmatism. In its current form, social policy will serve less and less the interests of society, and more and more those of individual beneficiaries. To create prosperity in the future, capitalism will need workers. A pragmatic response – one that recognizes that state

guarantees cannot be maintained in absence of prosperity – will require a fundamental reordering of the welfare state itself.

Following World War II, all of the industrial democracies set out to buy social peace through income transfer programs designed to ameliorate the unemployment problem. The ideological turmoil of the 1930s underscored the dangers that democracies courted by permitting unemployment to impoverish large numbers of young men. In the election of 1932, a majority of Germans voted for candidates (fascist and communist) who promised to end democratic rule. By 1946, it was clear that resisting the Soviet ideological and military threat would require solidarity not only among the democracies, but within them as well. Many analysts trace modern social welfare policies to Bismarck's social reforms of the 1880s. But the full flowering of the welfare state would have to await the Cold War.

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It was against this backdrop that retirement came to be a mainstay of the welfare state. Pensions would allow the old to gracefully make way for the young, and at the same time to feel invested in the social order that protected private property. As the baby boomers swelled the ranks of the jobless in the 1970s, these systems were expanded through generous unemployment and disability provisions. Unemployed Germans are eligible for a pension at age sixty, while »elderly« workers can receive three years of unemployment benefits – making 56 a popular age of workforce exit.

Today, throughout the industrial world, retirement has become a lengthy period of state-supported leisure for surging retired populations, a high percentage of whom, thanks to modern medicine and less-disabling forms of work, are able-bodied well into their seventies. Up until now, this has been a tolerable form of excess only because there were enough young willing to bear the increasing economic burden. Social security taxes now top 42 percent of payroll in Germany, followed closely by those of France, Italy, and the rest of continental Europe, versus fifteen percent in the U.S. But in the future the supply of youth will dwindle. In the face of this demographic upheaval, the question is not whether reform will come, but whether it will be enough to prevent the problems now plaguing Japan – currently the world's oldest population – from spreading to Europe and the global economy.

Race Against Time

Revamping social systems to deal effectively with labor shortages promises to be an immense task, fraught with controversy, and therefore uncertainty. In most industrial countries, the shift from conditions of labormarket surplus to scarcity will occur later this decade. In the U.S., where unemployment rates hover near postwar lows – and where tight labor markets recently led the Federal Reserve to engineer an economic slowdown – decision makers show only a dawning recognition of the challenge. By 2005, half of U.S. civil servants will be eligible to take a pension. And by 2010, similar strains will broadly be felt throughout America's private sector. Yet, very little groundwork is being laid for the abrupt shift in social priorities this will entail. Ironically, in Europe, where the median worker is several years older, the debate is still in its infancy.

Surmounting the twin crises of ageing and depopulation will require the advanced industrial societies to be more tolerant to immigrants, more willing to »export« low-paying jobs and more committed to the ideals of lifelong productivity.

One problem is that political time horizons extend only until the next election. To be sure, politicians in Germany, Italy, the U.S., Japan and elsewhere have broached the issue of pension reform. But their accomplishments to date have been modest and electorates have not encouraged a healthy debate about revising benefit schemes. Neither has leadership been forthcoming from the private sector. One need only review the casualty list of chief executive officers (CEOs) who failed to meet their latest quarterly earnings targets to see why. A recent international survey found that half of major company CEOs had held their job for less than three years. Most business leaders are too busy coping with today's problems to contemplate tomorrow's.

Finally, there is the sheer weight of intellectual inertia. Comfortable ways of viewing the world seldom change overnight. Thus, in the conventional wisdom, immigration and free trade steal jobs from the native

born; those of pension age are »elderly« and therefore physiologically unfit; job-creation is the surest measure of economic progress; workweeks must be shortened, restrictions on corporate downsizing strengthened, and low-value-added work like farming and textile manufacturing subsidized in order to prevent unemployment. And so-on. Little wonder that the notoriously fickle journalistic community hasn't picked up on the coming crisis.

As if this were not enough, the problem defies easy solution. Immigration will help, but only at the margins. Attempting to maintain a constant ratio between working and pension age populations might mean, for example, that eighty percent of Germany's population in 2050 would consist of immigrants or their progeny. Retirement ages could be raised, but such measures will have no effect on depopulation. Meanwhile, relying solely on longer work lives might mean that by 2050 the typical European would work until his or her late seventies; the typical Japanese until age 83. Child subsidies and other pro-natalist policies might help to prevent depopulation, but they are costly. And if they are effective (their record is dubious) they could saddle countries with a double dependency crisis: simultaneous baby and senior booms. Many adjustments are needed, but there are no panaceas.

Surmounting the twin crises of ageing and depopulation will require the advanced industrial societies to be more tolerant of immigrants, more willing to »export« low-paying jobs (thereby specializing in highvalue-added work), and more committed, both socially and individually, to the ideals of lifelong productivity. Money that is now spent subsidizing early workforce withdrawal must be diverted toward mid-life retraining. A truly »social« social policy will substitute sabbaticals for retirement, leaving to the individual the responsibility of providing for his or her late-life leisure.

Whether these policies can be put in place in time to reshape the life plans of baby boomers is another matter. They probably cannot, at least in the absence of crisis. And this means that the early twenty-first century could turn out to be every bit as tumultuous as the first half of the century just ended.