THE DEMOGRAPHIC MANIFESTO: NEW PEOPLE, NEW JOBS

New technologies, population explosions, and global economic booms have historically tended to occur together. The information and biotech revolutions have been accompanied by the fastest rise ever seen in global population, and appear to be generating an economic expansion of impressive, almost unprecedented, duration and scale. Population growth has sometimes triggered technological innovation and has sometimes been triggered by technological innovation. But most often, causality seems to run both ways, in a potentially virtuous circle that could lead to a near universal spread of prosperity, but could also trigger slumps with massive over capacity and mass unemployment, if mis-handled by policymakers.

Demographic change, together with new technologies and the opening of domestic and global markets, are the three great drivers of economic growth. Our project attempts to look at demographic issues such as the pensions timebomb on a global scale, and fully integrates with analysis of the new economy. Our Manifesto sets out the main areas needing urgent action by policymakers – which because of their importance for the global economy are also the most critical areas for investors and corporate leaders.

POPULATION GROWTH BOOSTS PROSPERITY


We gratefully acknowledge the following contributors: Richard Barwell, Tushar Poddar, Maria Gutierrez-Domenech and Maxine Koster

CSFB research can be accessed at: http://primevision.csfb.com/primevision
Demographic upheaval affects financial markets through many routes. The aging of the “baby boom” generation, born in the post-Second World War birth surge, threatens the viability of public pension schemes, alters the demand parameters for industries as diverse as insurance and retailing, and may yet start to skew investor demand back from equities to bonds. None of these issues should be viewed in isolation from two broad global demographic developments, which if properly linked to the new technologies and the new markets, might over time produce positive impacts so large as to swamp the narrower effect of aging baby-boomers:

(i) The surge in populations in emerging nations
(ii) The benefits of lifestyle and medical advances, particularly for women and older people

These forces imply a very large increase in labour supply. But there are great obstacles in the way of harnessing this. To realise the productive potential of the surging populations in emerging nations, more has to be invested in education, and there has to be a large rise in capital stock in the right place. Even with e-commerce breaking down some of the old spatial constraints, this necessitates an enormous accumulation of capital in emerging countries, through domestic savings or inflows, a process hostage to periodic crises. Migration to the developed countries also plays a key, complementary role, aligning people from emerging nations with a more secure capital accumulation process. Migration is often contentious, but less so in periods when both the nations involved are enjoying sustained growth.

To unleash the potential of women in the developed nations, great progress has been made in the US and parts of Europe in the last two decades. In Japan the process has scarcely started, but there are intriguing signs that it is at last about to begin in earnest, as part of a broader transformation of society. Utilising the power of older people was just not on the agenda in the twentieth century, but it is a central part of our thesis that it will be a major feature in the twenty-first, with the boundary between work and retirement crumbling into a far more flexible form of working, helped in part by the e-revolution.

Global population growth is currently around 1.5 percent, heavily concentrated in the emerging nations. This is vastly higher than that achieved throughout almost all human history including during the industrial revolution, but below the rates of about 2 percent achieved in the 1960s and 70s. Growth in population of “working age” is now about 1.7 percent, also slightly below its peak of some 2.2 percent reached in 1985. If there were a crude link from this to economic growth potential, then global GDP growth would have reached a secular peak in the mid 1980s and would be set for renewed decline after about 2005.

It is a key part of our argument that this is not so. Partly because a gradual further build-up of economic activity by women and older people in the developed nations can add substantially to labour supply. Partly too because the delays in linking capital to people in the emerging nations insert a long, long lag into the process. The last two decades have seen a rapid rise in working-age people in emerging countries, whose potential has not yet been properly exploited. The next two decades could easily see a much higher secular global GDP growth rate, as people and capital finally get linked up.

The pensions “timebomb” and other effects of developed-economy aging have to be seen against this background. Globally, labour supply can continue to grow very rapidly, providing resources to honour a substantial part of the promises made to future pensioners. The political challenge is to harness this, with the emphasis varying from country to country.
THE DEMOGRAPHIC MANIFESTO

(i) Abolish mandatory retirement, replacing it with a flexible, *e-nabled* mix of work and leisure for people from their 50s to their late 70s or even beyond

(ii) A (further) dramatic increase in the role and status of women in the workforce, and the use of technology to allow radical solutions to mixing family life and work

(iii) Facilitate migration, affirming the benefits for both host nations and immigrants

(iv) Help people who stay at home, by boosting capital flows to emerging markets and especially, economic integration between developed economies and their emerging neighbours

Each country will set its own particular priorities from this list, but we can sketch out some of the most likely outcomes. In Japan, the biggest potential looks to be in the acceptance of a greatly increased economic contribution by women. There are encouraging signs that legislation and transformation of social attitudes are moving in a direction conducive to this. A complementary move to encourage immigration is unlikely on any scale but it is possible that there could be some modest progress in this area too.

In the US, immigration is already a key driver of economic growth, and female participation rates are among the highest in the world. While both offer potential for some further boost to labour supply, the main incremental opportunities probably lie elsewhere. One is in the move to much greater and more flexible employment of older people. The other would be a substantially higher degree of integration with, and development of, the Mexican economy and capital markets.

In Europe, the solutions are more of a hybrid, including integration with the under-exploited nations in central and Eastern Europe and particularly with Turkey; some increase in immigration, and a rise in female participation in laggards such as Spain and Italy. As in the US, there is also enormous potential to utilise the skills and experience of older people more fully.

Almost everywhere, the pensions problem probably requires some cut in promised benefits, but this should not be viewed merely as a mechanical device to cut costs. Crucially, it should be part of a broader process to incentivise and allow older people to remain partially economically active for much longer than now.

QUESTIONS FOR THE FUTURE

Can all of this be achieved? Will we see this leading to two or more decades or more of worldwide prosperity with a trend rise in global GDP higher than in the last twenty years?

The slate of micro-economic and social changes outlined above would have to be accompanied by well-managed macro-economic policies, to foster the very high rate of investment required. It can be done. No period of history is directly comparable, but some similarities are clear. The surge in global productivity in the 1870s, 80s and 90s shown in our chart on the front page reflected innovation, immigration and capital inflow in the US, while Europe intensified the use of labour by bringing farm-workers to the cities. By contrast, the stagnation of productivity in the 1920s and 1930s reflects the policy mistakes of that era, with macro-economic failures and micro errors, like the clampdown on immigration into the US, reinforcing one another.

In short, success is likely to be self-reinforcing, creating a buoyant economy that fosters a political environment for further good policies and encourages new rounds of technological innovation. Failure, by the same token, could also feed on itself, as sluggish growth or recession could create a political mood hostile to immigration and greater female participation. A middle road between secular boom and secular slump is unlikely.
DEMOGRAPHIC CHARTBOOK

In the following pages, we illustrate many of the themes of the Demographic Manifesto with charts. These charts are as listed below.

These charts are based on data from our demographics databank (see below).

This Manifesto and the databank are both part of our broader Global Demographics Project. As part of the Project, CSFB researchers all round the world are preparing a series of papers on key topics. Some of these are summarised on the back cover.

CHARTBOOK CONTENTS:

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CSFB’S GLOBAL DEMOGRAPHICS DATABASE

CSFB’s Global Demographics Database is a valuable resource available to our clients. It can be used to analyse issues relevant to demographics and its effect on economies and markets. It is rich in diversity and has been compiled from a variety of different primary and secondary sources. A sample of what it contains is as follows:

- More than four hundred Demographic Data Series covering a wide range of countries and regions. It has been compiled from sources including the UN, IMF, World Bank, WHO and OECD. In addition it is complemented with historical economics data and forecasts on both developed and emerging markets that CSFB possesses.

- More than three hundred recent articles and twenty recent books from academic and policy sources covering topics on population history, migration, health, savings, labour force participation etc.

- Links to many demographics related websites all over the world.

- The reference books published in the last five years by Richard Hokenson’s team who now join our efforts to follow the impact of these trends on economies for investors.
GLOBAL DEMOGRAPHICS: HISTORY & OUTLOOK

The charts on this page illustrate that growth in total and working-age population, although still at very high levels by the standards of earlier eras, are now past their peak and set to fall further over the next couple of decades. But we see this being (more than) offset by increases in participation among women and older people – the very concept of “working age” will change. The charts on the opposite page show that emerging market populations have formed the vast bulk of the total growth – and we believe they have great potential for further productivity growth.

GLOBAL WORKING AGE POPULATION GROWTH

![Graph showing the growth in working-age population](source: UN World Population Database)

GLOBAL POPULATION: GROWTH AND LEVEL

![Graph showing population growth and level](source: Kremer (1993) Quarterly Journal of Economics “Population Growth and Technical Change”)

Source: UN World Population Database.

The Demographic Manifesto - New People, New Jobs

Surge in Populations of Emerging Nations

Less Developed Region Population as Share of World Population

Population Growth Rates

Source: UN World Population Database
E-NABLING THE OLD

The first chart shows the core of the pensions problem: the rise in the proportion of older people. The other charts signal a possible solution: improved health of older people. Add in the flexibility of the new economy and rigid retirement can be replaced by a work-leisure mix. This is already happening. The top chart opposite shows that older women are working more. For older men (not shown), this is just starting, ending a long decline.

THE RISING AGE DEPENDENCY RATIO – POPULATION 65+/POPULATION 15 - 64

Source: UN World Population database

US: IMPROVEMENTS IN HEALTH FOR THE ‘OLD OLD’ - Life Expectancy At Age 85

Source: Federal Interagency Forum on Aging Related Statistics

US: THE ‘YOUNG OLD’ ARE GETTING HEALTHIER - Life Expectancy At Age 65

Source: Federal Interagency Forum on Aging Related Statistics
US: OLDER WOMEN ARE WORKING MORE

Source: Federal Interagency Forum on Aging Related Statistics

US: FEWER PEOPLE AGED 70+ REPORTING A SEDENTARY LIFESTYLE

Source: Federal Interagency Forum on Aging Related Statistics

US: DECLINE IN DISABILITY RATES BY AGE GROUP

Source: Federal Interagency Forum on Aging Related Statistics
WOMEN IN THE WORKFORCE

The increased role of women in the workforce has been a major source of economic dynamism in the US for several decades. A similar picture applies in parts of northern Europe but our chart shows that the south, including Spain, has lagged badly. In Japan there has been no progress for several decades and women’s penetration into management and senior jobs, though improving, is still very poor.

But Japan and southern Europe’s current weakness in this area is a great opportunity for the future. Converging to US female participation rates and job status would massively boost labour supply, aiding the pensions problem. In Europe, this move is already well under way and the chart at the bottom of the opposite page shows how it could defuse the pensions timebomb. In Japan, the process is at a much earlier stage but there are now signs that the role and status of women in society and in the workplace are starting to alter, as part of a broader social change. This year’s legalisation of the birth control pill, offering improved reliability and control over contraception, is just one of many signals, but it may be especially significant. Although the relationship is complex, it is noticeable that the growth in reliable contraceptive use in the US since the 1950s has paralleled the rise in female participation.

FEMALE LABOUR FORCE PARTICIPATION

![Female Labour Force Participation Chart](chart.png)


JAPAN: IN 1984 THERE WERE 60 MALE DIRECTORS FOR EACH FEMALE DIRECTOR, IN 1999 THERE WERE 30.

Ratio men/women managers adjusted for labour force participation

![Male/Female Manager Ratio Chart](chart.png)

JAPAN: CONTRACEPTIVE USE AMONG MARRIED WOMEN OF REPRODUCTIVE AGE

US: CONTRACEPTIVE USE AMONG MARRIED WOMEN OF REPRODUCTIVE AGE

EUROPE: RISING PARTICIPATION BY WOMEN AND THE OLD COULD ALLOW THE ECONOMIC-DEPENDENCY RATIO TO FALL MARKEDLY BY 2030

Source: Levels and Trends of Contraceptive use as assessed in 1998 (UN Population Division)

Source: “Re-centring the Debate on Pensions”, CSFB European Economics Team, November 2000
PROSPERITY FROM IMMIGRATION

The relation between US immigration and prosperity is clearly illustrated here. High immigration and strong productivity growth characterised much of the 19th century. The uncertainty of the 1920s saw a clampdown on immigration, maintained through depression and the artificial stimulus of the Second World War. The surge in immigration in the last part of the twentieth century has been followed by a new surge in productivity (not fully visible in our chart which ends in 1998). The lower chart shows the changing origin of immigrants, reflecting both legislation and economic forces.

US: REAL GDP PER CAPITA GROWTH RATE AND IMMIGRATION GROWTH RATE TRENDS

![Graph showing trend growth rate in Immigration (RHS) and trend growth in real GDP per Capita (LHS).]


US: CHANGES IN IMMIGRATION PATTERNS

*Immigrants by Continents by Decades (in millions)*

![Graph showing immigration by continents from 1820's to 1980's.]

Source: INS Statistical Yearbook
THE BENEFITS OF INTEGRATION BETWEEN RICHER AND POORER NEIGHBOURS: MEXICO & US: COMPLEMENTARY DEMOGRAPHICS

Mexico is aging less rapidly than the US. The more the economies integrate, through capital flows and trade, the more this can mitigate the US aging problem, with less need for migration.

**MEXICO POPULATION PYRAMID: 2000**

**US POPULATION PYRAMID: 2000**

**MEXICO POPULATION PYRAMID: 2030**

**US POPULATION PYRAMID: 2030**

Note: Population numbers are in millions
Source: UN World Population Database
THE BENEFITS OF INTEGRATION BETWEEN RICHER AND POORER NEIGHBOURS: TURKEY & THE EUROPEAN UNION: COMPLEMENTARY DEMOGRAPHICS

Just as Mexico is aging more slowly than the US, so is Turkey aging more slowly than the European Union (EU). Greater trade and capital market integration, in particular through Turkish EU membership, can mitigate the EU’s aging problem, with less need for migration.

TURKEY POPULATION PYRAMID: 2000

EU POPULATION PYRAMID: 2000

Note: Population numbers are in millions
Source: UN World Population Database

TURKEY POPULATION PYRAMID: 2030

EU POPULATION PYRAMID: 2030

Note: Population numbers are in millions
Source: UN World Population Database
# CSFB Regional & Global Economic Teams

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## Emerging Markets Economics Research

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**Notes:**
- CSFB (Credit Suisse) offers comprehensive research across various economic topics and regions.
- For detailed contact information, refer to the provided numbers and email addresses.
- Team members include economists, analysts, and researchers with expertise in global, developed, and emerging markets.
- CSFB is known for its global presence and ability to provide deep insights into economic trends and market conditions.
As well as this Manifesto and our extensive databank of information available to clients, the project includes a range of papers by CSFB researchers from around the world. These papers are in the course of publication and cover a wide range of demographic topics, expanding on many of the issues mentioned here and exploring the implications for financial markets. Examples include:

“The Baby Bulge and Asset Markets”. Neal Soss, Paddy Jilek and our US Economics Team in their Economics Digest of 4 September 2000 addressed the interaction between asset return patterns and attitude changes of baby boomers, in the past, present and for the future. They find that the changing attitudes of baby-boomers appear to have solidified the demographic impact on asset prices. They assess prospects for asset market and real estate returns and the equity premium in the face of the retirement phase of the baby boomer’s life cycle.

“Re-Centring the Debate on Pensions”. Part I of a continuing study on European Pensions by Julian Callow, Giovanni Zanni and our European Economics Team in CSFB Euro Weekly of 2 November 2000, offers some encouragement on the pensions time bomb issue in Europe. An increase in the employment ratio has positive effects on the economic dependency ratio (defined as the ratio of all the dependents relative to the number of workers). As seen in the chart on page 11 of this Manifesto there is a considerable difference in the possible outcomes. If the employment ratio is unchanged at 60%, the economic dependency ratio would increase by 25% by 2030 but if it were to increase to 75%, the economic dependency ratio would decline by 10%.

“The German Pension Reform”. Christel Aranda-Hassel in the Euro-11 Special of 7 September 2000 evaluates recent German Pension reforms whose aim is to limit pension contribution rates (shared equally by employer and employees) below 20% until 2020 and below 22% until 2030. Given demographic developments, the capping of contributions implies declining pension benefits under the current PAYG system. The reform introduces voluntary, tax-exempt contributions of supplementary private pensions, which will form the funded element of the pension system. She estimates that the inflow into the private pension funds industry could be significantly boosted by 10-17% of 2010 GDP by the end of the decade.

Richard Hokenson is a recent addition to the Global Demographics Project team and a very experienced hand in the area of demographic analysis. During his prior tenure at DLJ, Richard produced a series of reference works on international demographics as well as authoring many papers on global as well as US domestic demographic trends and developments. These efforts will both be sustained and expanded in the future.