Chapter 1

Where we have been

The past 30 years have been a Golden Age for the global economy.

The key feature has been the rise of the Western baby boomers. They were born in 1946–70, and came to dominate the global economy as they moved into their peak consumption period between the ages of 25–54 years old. This is when people typically marry, settle down, and have children. In turn, their need for material goods is at its greatest.

Their domination was achieved via a unique combination of circumstances. Not only were they living in the wealthiest countries ever seen in history. But they also belonged to the world's largest-ever generation in terms of population size. As a result, they had both the wealth, and the numbers, to establish and maintain the consumer trends that have dominated global markets since 1980.

This Golden Age is, however, now coming to an end, as these baby boomers move into the 55+ age group, where people typically consume less as their needs reduce. Instead, we are now moving forward to a new normal, and a world where demand patterns will be quite different.

These western baby boomers have been on a remarkable journey, both for themselves and for the rest of the world. And their journey is not yet over. Now, they are moving beyond their peak consumption years. And, once again, they find themselves in a unique position, with the longest life-expectancy in history now stretching out before them. Almost certainly, they are about to create major changes in world markets as a result.

The key issues can be simply summarised:

- The western baby boomers, who have driven major consumption growth over the past 25 years, are now mainly in their 50s and 60s. They are starting to consume less, and save more as they plan for retirement. This is already leading to lower sales into previously key markets such as autos and housing.
- In turn, this means the emerging economies of Asia, Latin America and Africa can no longer rely on exports to drive their growth. They will instead have to stimulate domes-

tic consumption, particularly in rural areas. And given that emerging economies have much lower GDP/capita, this will dramatically change their demand patterns too.

This change is already well underway. The median baby boomers were born in 1958, and moved into the 25–54 year old age group in 1983. 2013 therefore marks the year when they will move into the 55+ age group. Older baby boomers, those born between 1946–56, have already reached this major milestone in their lives. It is therefore critical that we try to better understand the background to this transition, and where it might lead us over the next 30 years.

THE POST-WAR BABY BOOM IN THE WEST

Few, however, would have forecast this development back in 1945-6, when the troops began to return home at the end of the Second World War. At that point, the economies of both the defeated and victors in Europe, were stretched to breaking point, and their cities were in ruins, as can be seen from the famous photo below of London's St Paul's Cathedral from 1940.

St Paul's Cathedral, London, 1940 (Keystone/Getty Images)

Equally, there was no precedent for a sustained boom in the number of babies being born. At the end of the First World War, births had quickly increased again as the troops returned home. And by 1920-21, they were back to pre-War levels. But from then on, the number of births began a steady decline, no doubt due to the numbers of men who had been lost in the war.

This decline in births continued until the start of the Second World War. Chart 1 shows that in 1921, there were 9.8 million births in what is now called the G7 Group of the wealthiest countries (Canada, France, Germany, Italy, Japan, UK, US). But births then fell to 9.3 million in 1922, and by 1930 only 8.7 million babies were being born. Then, with the onset of the Depression, births fell even further. 1936 saw just 8.3 million babies being born, and numbers stayed depressed until the Second World War broke out in 1939.

This traumatic event seems to have encouraged couples to live for the moment. In 1940, births

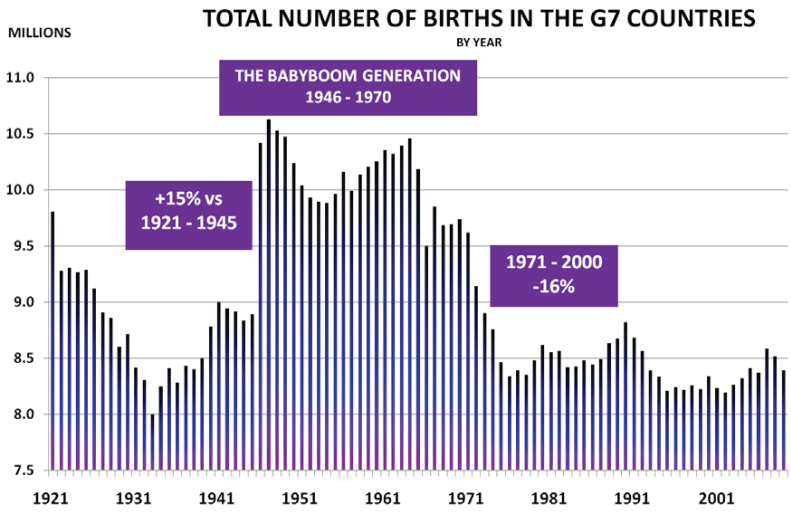

Chart 1: The Rise of the Western Baby boomers

jumped to 8.8 million, returning to the levels seen in the late 1920's, and they stayed there until the war ended. In particular, there was a sharp recovery in the US, where the Depression had hit hard. Only around 2.4 million US babies were born each year during the 1930s. But they jumped 29% to a new all-time high of 3.1 million in 1942, after the country had declared war in 1941.

If history was any guide, the end of the War should also have seen a further temporary increase in the number of G7 babies being born, as the troops returned home. And at first, this seemed to be happening. Across the G7 Group, the number of babies born in 1946 jumped to 10.4 million, and couples continued to make up for lost time between 1947-9. But then, the numbers dropped again, with only 9.9 million G7 babies being born in 1952.

At this point, something quite remarkable began to happen. Visionary economic policy in the US, designed to combat the rise of Soviet communism, provided a massive kick-start to the battered economies of Western Europe. And far from falling back into a new Depression, wealth began to increase and, with it, the number of babies being born.

Overall, between the peak years of 1946–70, the average number of G7 babies being born each year rose 15% by comparison with the previous 1921–45 period. This was equivalent to 33 million extra people, or more than twice the total population of Canada in 1950, the smallest of the G7 members. It would shortly provide the most extraordinary boost to consumption in the West, and in the global economy, as this generation began to grow up.

THE STARTING POINT, 1950

The critical issue, as Chart 2 shows, is that the G7 Group of countries dominated the global economy in 1950. The US was obviously the largest, amounting for over 25% of global wealth. But the other 6 countries together accounted for a similar proportion. So when these countries began, collectively, to have more babies, it made an immediate difference to global consumption and to global demand patterns.

This latter point is particularly important, as we shall see in later chapters when we come to discuss the more recent rise of the emerging economies, particularly the so-called BRIC countries (Brazil,

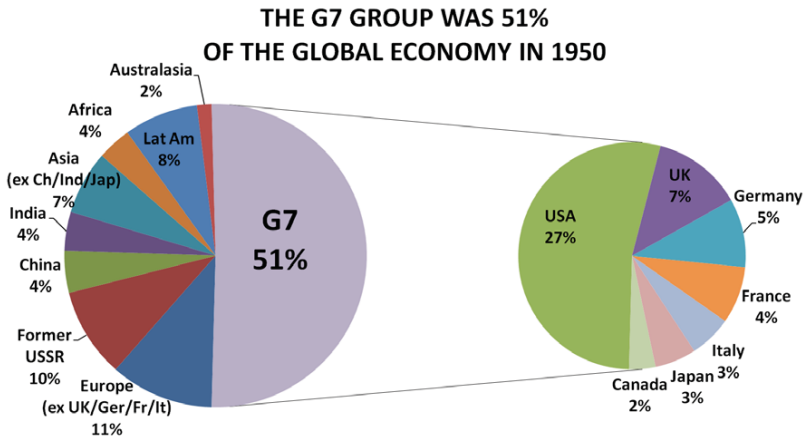

Chart 2: The G7 Group dominated the global economy in 1950

Russia, India and China). People who live on the poverty line have very little discretionary income. They have to spend their money on absolute necessities, such as food and energy.

But the populations within the G7 countries were generally not on the poverty line, and so as their baby boomer generation began to enter employment, discretionary consumption began to surge.

In 1950, as Chart 3 shows, these differences were quite stark. The normal way to measure a country's wealth is to take its Gross Domestic Product (GDP), and divide this by its total population, to provide an average GDP/capita. This is what we have done here. In addition, we express the figure in constant US dollars, based on 1990, so that changes due to inflation are eliminated .

Unsurprisingly, even in 1950, the US had the highest GDP/capita in the G7 and the world, with an average of nearly $10000. The wealthiest population in the BRICs was Soviet Russia's, with only $3000. In the rest of the G7, the UK and Canada averaged $7000, and France $5000. Even defeated G7 countries such as Germany and Italy were $3500, and only Japan was below Russia at $2000. And apart from Russia, GDP/capita in the BRICs was pitifully small – $1500 in Brazil, and $500 in India and China.

THE BABY BOOMERS BEGIN TO REACH MATURITY, 1970

Now, let us fast forward to 1970. The oldest baby boomers, born in 1946, are 24 years old – just about to enter those peak years for consumption between the ages of 25–54 years. As Chart 4 shows, the G7 still accounts for 50% of the total world economy. The share taken by the US has dropped a bit to 22%, but that of Japan has rocketed to 8% as its 'economic miracle' has begun to develop.

Similarly, as Chart 5 shows, the G7's GDP/capitas have been increasing rapidly, boosted by the number of babies being born. The US is now up to nearly $17000, and the other countries are all in the $10500 - $12500 range. Their populations are starting to be able to afford quite a bit of discretionary expenditure, as they now have spare cash after paying for the essentials. But the BRICs are still lagging far behind. Russia and Brazil have doubled their average income, but only to $6000 and $3000 respectively. India and China are still both below $1000 per head.

THE BABY BOOMERS REACH THEIR PEAK, 2000

Fast forward again, to 2000, and the oldest baby boomer was now 54 years old. The youngest, born in

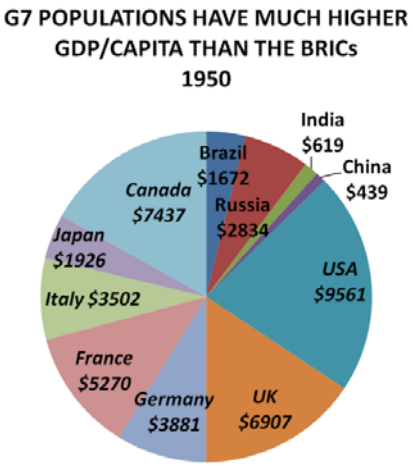

Chart 3: G7 populations in 1950 were much wealthier than those in the BRICS

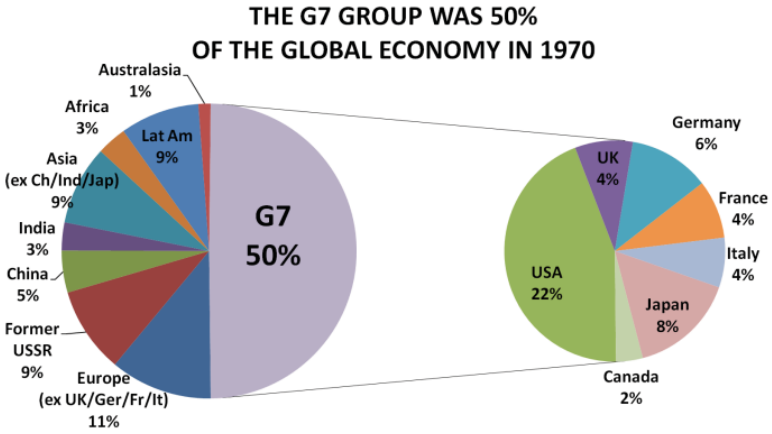

Chart 4: G7 & BRICs share of the economy, and income per head, 1970

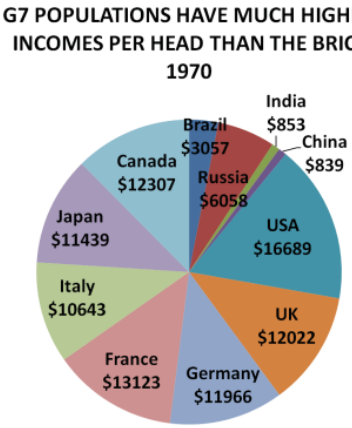

Chart 5: G7 & BRICs share of the economy, and income per head, 1970

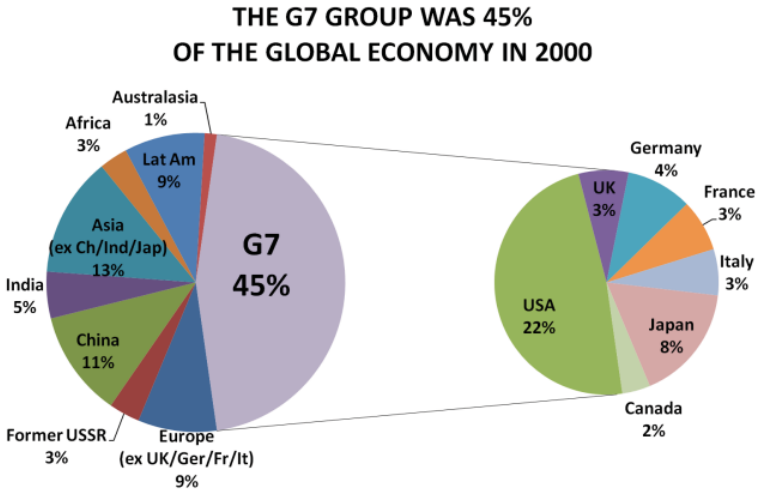

Chart 6: the G7 countries still dominate, and have the highest incomes, 2000

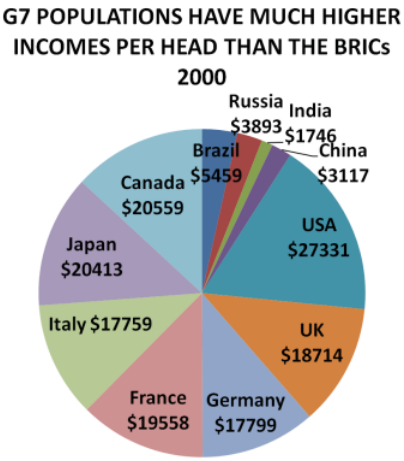

Chart 7: the G7 countries still dominate, and have the highest incomes, 2000

1970, was 30 years old. All of them, in other words, were now in their peak years of consumption. Even those who had delayed having children, due to the arrival of reliable contraception, or who were without children, still had plenty of spare cash to spend on themselves.

The G7, as Chart 6 shows, was still 45% of the global economy. Its economic policies may not have been perfect, but they certainly seemed to have worked pretty well. The US was still nearly a quarter of the total economy. And as Chart 7 illustrates, the G7 Group had extended its lead in terms of GDP/capita. The US was now at $27000 per head, 3 times its 1950 starting point. And the other 6 countries were all in the $17500 - $20500 range, with Japan having grown its GDP/capita ten-fold over the previous 50 years.

Meanwhile, GDP/capita in the BRICs had produced a mixed performance. Russia had barely grown its average, and was actually lower than in 1970 at just $4000, due to the chaos surrounding the break-up of the former Soviet Union. China had produced the best performance, with its average up 5-fold

since 1950, but it was still only $3000. Brazil and India had grown their average GDP/capita 3-fold, to $5500 and $1750 respectively, making Brazil the top performer amongst the BRICs. But even its average didn't allow for much discretionary expenditure, once food and energy costs had been paid.

This highlights one key change since 1970, the emergence of an export-development model in the emerging economies in Asia and Latin America. Consumption in the G7 had begun to increase so dramatically, as the western baby boomers entered the 25–54 age range, that the emerging economies had spotted an opportunity to help satisfy it.

China, in particular, was well on the way by 2000 to becoming the manufacturing capital of the world, as its government focused on export development, rather than domestic consumption as the key source of economic growth. Its share of global GDP had nearly trebled to 11% compared to 1950. Other Asian countries, such as Singapore which had pioneered this model, had also grown their share of the pie to 13%, although India was still dormant with only 5%.

However, 2000 also marked the moment when the first of the baby boomers were about to leave the magic 25–54 age group, when consumption is at its highest. And in parallel, as more and more of them entered the 55+ age group, demand growth clearly began to falter. Western policymakers have done their best to prop it up via the adoption of low interest rates, and the relaxation of lending standards. And this appeared during the mid-2000s to be successful in supporting consumption in key markets such as housing and autos.

But the on-going financial crisis since 2007 has only emphasised that the short-term benefits of such an approach are more than outweighed by the long-term problems that it causes.

THE G7S BABY BOOMERS ARE NOW AGEING

The oldest baby boomers, those born in 1946, transitioned to the 55+ age group in 2001. And now, the median baby boomer born in 1958 is also approaching this milestone. When they reach it, in 2013, the world will have reached a tipping point as far as consumption levels and economic growth. Are we ready for the disruption that this massive change will potentially cause? Are we even fully aware of the issue itself?

So far, the major debate about ageing populations in the West has focused on the problems that this will cause for pension plans. It is already clear that the combination of pay-as-you-go systems and increased life expectancy is a very potent cocktail for public finances. It worked brilliantly when the baby boomers were all in employment, and the elder generation that they were supporting with their taxes was relatively small. But it does not look so attractive for the future.

Chart 8 shows a snapshot for 1900, 1950 and 2000 of average births per year, versus life expectancy, in the larger G7 countries. It highlights the massive changes that have taken place in just 100 years:

- In 1900, these 6 countries (blue group) had life expectancy of under 50 years, and a relatively low number of average births per year. This explains why a pension at age 65 or 70 years old, especially with an upper limit of qualifying income, was seen as affordable.
- In 1950 (green group), life expectancy had moved up sharply to average 65 years, a

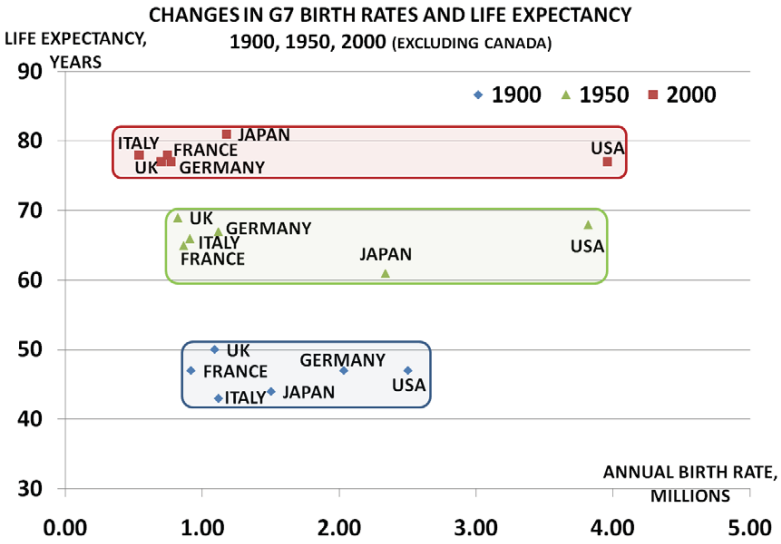

Chart 8: Average life expectancy versus birth rates in the 6 large G7 countries

35% increase. This was due to the success of the chemical industry in producing the first drugs, such as penicillin, and also in improving the overall standard of living. Equally, as we have discussed, a 15% increase in the numbers of babies being born was in the process of taking place.

- By 2000 (red group), life expectancy had increased still further to average nearly 80 years. But the average number of babies being born had declined by 16% between 1971–2000 versus the 1945–70 period.

Will the generation now replacing the baby boomers in the 25–54 year old cohort be able, or willing to shoulder the burdens now being transferred to their shoulders? Will the great benefit of increased life expectancy now become a curse for millions of people, unable to afford what they feel to be a reasonable standard of living?

One source of our current problems is that the short-term 'fixes' used to support demand in the past decade have made long-term 'solutions' more difficult to achieve. They appeared very attractive to politicians focused on the short-term electoral cycle. Equally, in terms of pension age, there has been a collective unwillingness to recognise that we have been living on borrowed time since the 1950s, when increased life expectancy first became a reality.

After all, when the then German Chancellor Bismarck introduced the first state-funded pension scheme in 1889, average life expectancy in the country was only 45 years. And Bismarck set the age for receiving a pension at 65 years, expecting no more than a few percent of the population to ever benefit.

Equally, when the UK followed this lead under Lloyd George in 1908, the age for receiving the pension was set at 70 years, along with a cut-off for benefits for those with incomes above 12 shillings a week (around £40, $65 and €45 in today's money). Policymakers were well aware of the need to ensure it only benefited an affordably small number of people.

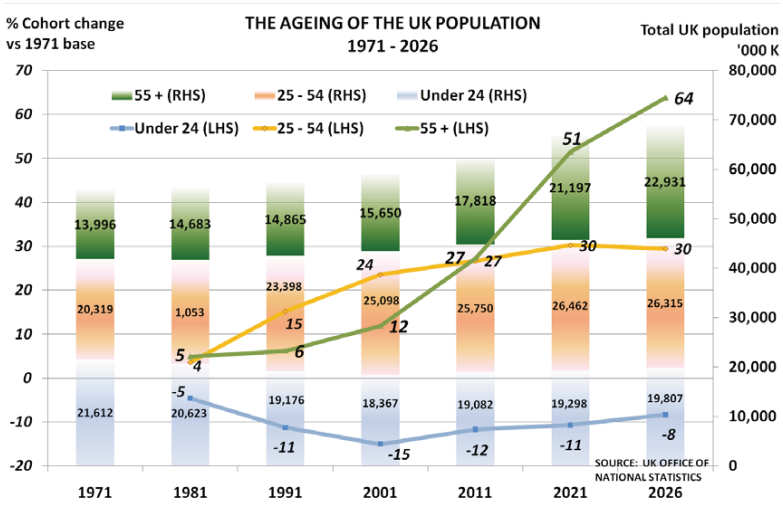

Chart 9: The Ageing of the UK population

However, changing social priorities, accompanied by the growth in size and wealth of the baby boomer generation, allowed G7 politicians to extend the benefits much more widely. And, of course, increasingly baby boomer-dominated electorates chose not to consider how these promises would be afforded once they began to reach retirement age.

Yet the numbers involved are huge. Overall, as we have seen, there was a 15% increase in the average number of births each year in the G7 countries between 1946–70, compared with the preceding 1921–45 period. In the US, there was a massive 48% increase during the peak years of its baby boom between 1946–64, by comparison with 1921–45. And, of course, this overall 15% increase was achieved in spite of declines in Japan, Italy and Germany.

In the UK, for example, as Chart 9 shows, the number of those in the 25–54 cohort grew by 15% between 1970 and 1991 (orange line). And this positive trend continued inexorably, as time passed. By 2001, the number was up 24%. But 2011 sees the moment when growth in the over-55 cohort (green line) starts to overtake that of 25–54 year old cohort.

By 2021, the number of those over 55 in the UK will have risen 51% versus the 1971 numbers, and in 2026 it will have grown 64%. But the number of 25–54 year olds has now stopped rising. Almost by definition, over-55s consume less and save more. And this trend is accentuated by increased life expectancy, as people worry about whether their pension will be sufficient for their needs.

THE KEY ISSUE

The key issue is that western baby boomers, who have driven major consumption growth over the past 25 years, are now mainly in their 50s and 60s. They are starting to consume less, and save more, as they plan for retirement. This is already leading to lower demand in previously booming markets such as autos and housing.

Their need to save more to cover the prospect of a longer retirement is also driving down interest rates, even though policymakers are making desperate efforts to kick-start inflation via their stimulus programmes and efforts at quantitative easing.

In turn, this means the emerging economies of Asia, Latin America and Africa can no longer rely on

exports to drive their growth. They will instead have to stimulate domestic consumption, particularly in rural areas. And given that emerging economies have much lower GDP/capita, this will dramatically change their demand patterns too.

This ageing of the baby boomers has been widely discussed in recent years, but it has only been seen in the narrow (though still important) context of pension funding. And as a result, it has already had an impact on financial markets, where interest rates have fallen to the lowest levels in a generation. In turn, of course, this causes further problems for the baby boomers, as the income from their pension funds reduces.

But its impact on the global economy, and particularly on consumer demand for chemicals, has not yet been as widely understood.

Living much longer should not be seen as a problem, but rather as an opportunity. This requires a major change in mindset as we go through the transition to what we would call a new normal, to emphasise the change from the past 30 years. Equally, social changes such as the introduction of the contraceptive pill, and greater affluence, have led to young people delaying marriage. Whilst life expectancy is continuing to increase as people come to understand the advantages of healthier lifestyles.

A similar transition is underway in the emerging economies caused by the scale of the changes underway in the G7 populations. The New Normal means that there will inevitably be less western demand for goods from the export-oriented economies of Asia. This is already impacting countries such China, which has been extremely successful in building up its role as the manufacturing capital of the world. In turn, this has driven growth in the urban population, and a much higher standard of living.

But even so, China's average GDP/capita is only a tenth of that of the affluent Western countries who currently buy its manufactured goods. Therefore, a slowdown in growth rates for its exports cannot simply lead to a like-for-like replacement with sales into the domestic market. So the transition to the New Normal requires a refocusing on more basic needs, rather than on the small minority at the 'top end' of the population who can afford western goods.

SOURCES

Economic statistics from:

- Angus Maddison, The World Economy, A millennial perspective, Organisation for Economic Co-Operation and Development (OECD) 2001.
- International Monetary Fund
- World Bank

Population data from National Statistics organisations:

- US, Germany, Japan, Italy, France, UK, Canada

1921–2009

G7 births by country

There was a considerable difference, as Chart 10 shows, in the pattern of births in the individual G7 countries.

THE US BOOM IN BIRTHS AFTER 1945

In the US, the number of births fell dramatically during the 1930s, and remained below the post WW1 level until 1945. But then, the economy began powering ahead, as the troops returned and factories switched back to peace-time production from the war effort. With the European and Japanese economies in disarray, there were plenty of opportunities for the US to build up its sales.

Perhaps most critical was the period of the Marshall Aid plan, which ran from 1947–51. This was deliberately designed by the US to rebuild the economic foundations of Western Europe. Its necessity was highlighted during the Berlin Air-lift of 1948–9, when the US had effectively to re-mobilise in order to keep Western Germany, and Western Europe, free from the yoke of Soviet communism.

The success of these efforts enabled the US to put the scars of the Depression behind it. The

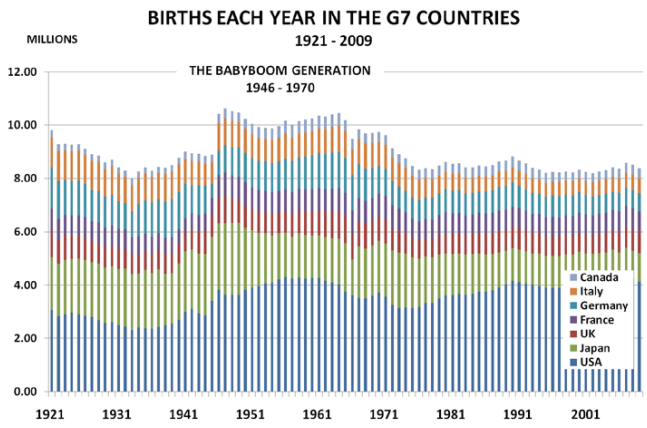

Chart 10: Births each year in the individual G7 countries

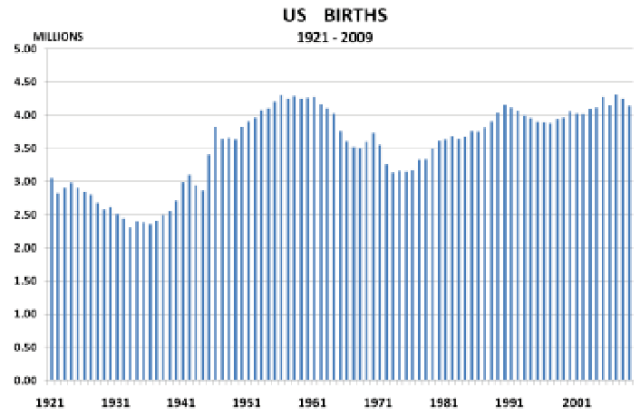

Chart 11: US births 1921 - 2009

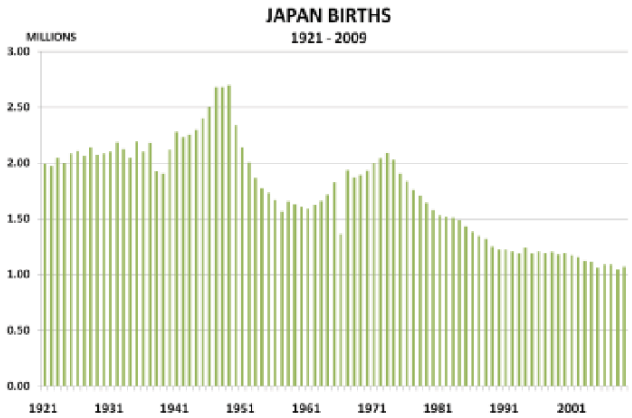

Chart 12: Japan births 1921 - 2009

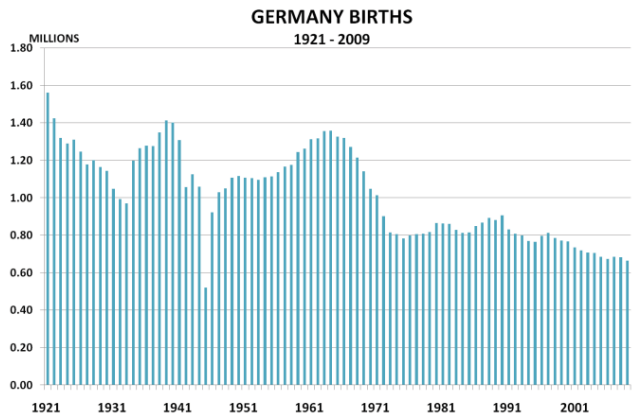

Chart 13: Germany births 1921 - 2009

average number of births each year rose an astonishing 45% during the 1946–70 period compared to the average in 1921–45. The number of births then fell steadily from then until 1976, and although they have since recovered due to greater immigration, the average number of births each year was down 6% between 1971–2000 versus the 1946–70 period.

JAPAN'S BIRTHS HAVE FALLEN SHARPLY

In 1921, Japan was second only to the US in the number of babies being born. That year saw 2 million born, compared to 3 million in the US. But whilst US births then declined during the 1930s, Japan's stayed remarkably steady.

There was then a brief post-War boom in 1947–49. But 1952 proved to be the last year in which 2 million babies would be born. The 1946–70 period actually saw a 9% drop in the average number of births each year, versus 1921–45.

Japan's own 'economic miracle' in 1950–75 saw GDP rose 600% to reach $1.2trn. This helped to stimulate a final recovery in the number of births up until the first oil crisis in 1973. But in 1975, they dipped below 2 million for the last time. Overall, the average number of births each year fell 22% in the 1970–2000 period, versus 1946–70, and they are now running at only 1 million.

GERMANY'S SHARP FALLS SINCE THE 1960S

Germany's births peaked at 1.6 million in 1921, and then declined steadily through the economic chaos of the 1920s and the onset of Depression. There was a temporary recovery from 1934 as the country moved towards war, but defeat proved traumatic, and births dropped right back to the 1 million level in 1946, where they remained into the 1950s.

The impact of Marshall Aid enabled the economy to grow 260% in 1950–70, and led to a return of confidence by the late 1950s. But as in the US, 1964 proved to be the peak, and since then there has been a steady decline in the average number of births per year. Overall, they were broadly stable during the 1946–70 period (falling 2% overall), versus 1921–45. But they then fell 29% during the 1971–2000 period. Even German Reunification in 1989 led to only a short-lived upturn in the downward trend, and they have been below 0.7 million since 2005.

ITALY'S BIRTHS SLUMPED AFTER 1970

Italy's births have followed a broadly similar pattern to Germany's since 1921, when over 1.1 million babies were born. It saw a slower decline during the 1930s, then accelerated towards the end of the war. Recovery led to a 'double top' as prosperity returned in the late 1950s and births briefly recaptured the immediate post-war level.

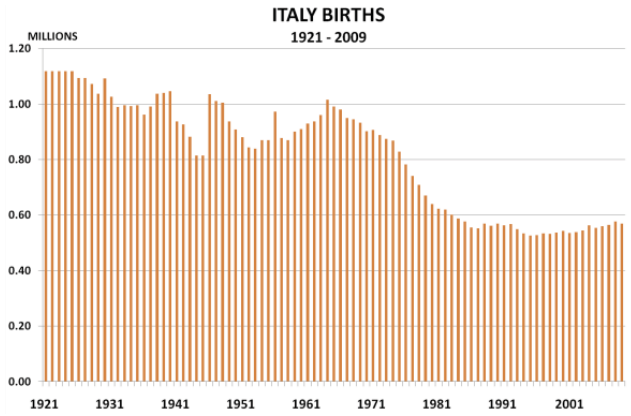

Chart 14: Italy births 1921 - 2009

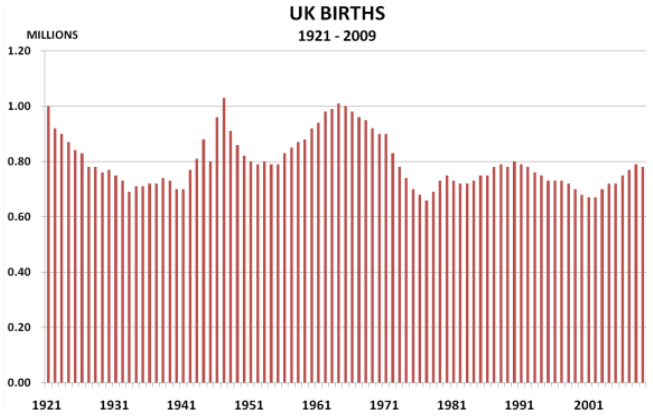

Chart 15: UK births 1921 - 2009

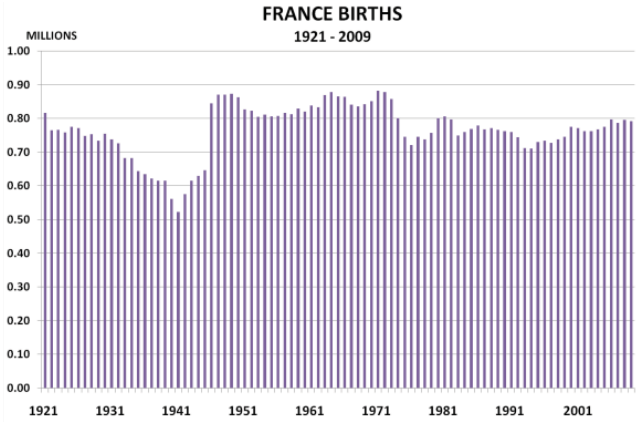

Chart 16: France births 1921 - 2009

But only 1964 saw more than 1 million babies being born. And overall, the 1946–70 period saw average births down 8% versus 1921–45, a similar decline to Japan's. Since then, Italy has seen the largest average fall of any G7 country, down 31% in the 1971–2000 period, and births are currently below 0.6 million.

UK SAW DELAYED, AND MODEST, POST WW2 RISE IN BIRTHS

The UK also saw the familiar decline after 1921 and through the 1930s. Wartime morale began to turn with the US's arrival on the side of the Allies, and victory led to a brief recovery to 1 million births in 1946–7 as the troops returned.

But a strong recovery in the average number of births then began in the early 1950s, as wartime rationing finally ended. And overall, the 1946–70 period saw a 15% increase in the average number of births versus the 1921–45 period. But as elsewhere in Europe, this was not sustained, and average births fell 17% during the 1971–2000 period, and are currently still below 0.8 million.

FRANCE'S FINANCIAL INCENTIVES REDUCED THE POST-1970 DECLINE IN BIRTHS

France, of course, was badly hit by the carnage of the First World War, with births suffering a steady decline from 1921's 0.8 million level to 0.6 million by 1939, and a further fall to 0.5 million in 1941 as the country was occupied.

But uniquely amongst the G7 countries, births then jumped to 0.8 million in 1946, and remained at this level until the early 1970s. This meant France showed a 22% rise in the average number of births between 1946–70, versus the 1921–45 period. Since then, the government's decision to incentivise couples to have more children has clearly had an effect, with the 1971–2000 period showing a relatively modest 9% decline, and births currently holding at the 0.8 million level.

CANADA'S SMALL POPULATION HAS FOLLOWED US TRENDS SINCE 1945

Canada has the smallest population of the G7 Group. It saw a relatively small decline in the number of babies born during the 1920s and

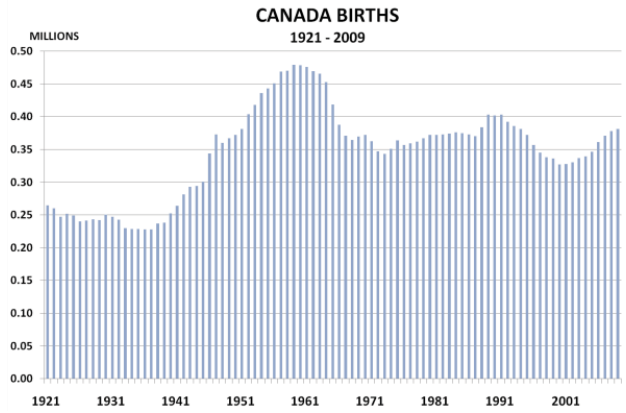

Chart 17: Canada births 1921 - 2009

1930s. It then saw a staggering 65% increase in the average number of births in 1946–70, compared to the 1921–45 period. At their peak in the late 1950's, births had doubled to 0.5 million, compared to the low-point seen in the 1930s.

The number of babies born then began to fall from the early 1960s, with a smaller peak then seen in the early 1990s. This was followed by a trough that took the number of babies born down to 0.3 million. Overall, the 1971–2000 period saw a 12% decline compared to the baby-boomer period between 1946–71.