

Multiplying investment and retirement knowledge

PROJECT M

SPECIAL
EDITION



BIGGER CITIES, MORE BABIES?

“Sex and the city” takes on a new meaning as research indicates cities are not quite the “fertility traps” they were thought to be



By Richard Wolf and Greg Langley

By Richard Wolf, Greg Langley, Jessica Formby

Humanity seems determined to squeeze into ever smaller portions of this planet. Over the last few decades, people in both developed and developing countries have crowded into cities at record-breaking rates. More than half of us now live in urban areas, a figure projected to increase to 66% by 2050. By contrast, in 1950 just 30% of the global population lived in cities.

While cities have been experiencing unprecedented growth, global fertility rates have decreased dramatically. Since 1970, fertility in more developed regions declined from an average of 2.2 children per woman to 1.7, and in less developed areas from 5.4 to 2.6, according to [United Nations data](#). Some demographers believe that the conditions that draw people to cities, such as increased access to education, better employment for women and family planning options, could also be linked to this decline.

In [Urbanization and fertility decline](#), a 2013 working paper for the [International Institute for Environment and Development](#), researchers stated, “It is almost universally acknowledged that urban fertility is lower than rural fertility, except in the very poorest urban slum areas.”

In a July 2015 report on fertility in developed countries, *The Economist* noted that in many countries fertility is highest in rural areas, moderate in small towns and suburbs, and lowest in urban centers. Japan, the country with the oldest population in the world, is so worried about this apparent trend that they are considering preventing young people from moving to big cities. “It could be,” the article concluded, “that a combination of urban redevelopment and restrictions on housing supply have created streets that are lovely, wealthy, exciting – and childless.”

FERTILITY DECLINE REVERSED

This conclusion, however, may not be wholly accurate. There is growing evidence to suggest that cities are not quite the “fertility traps” that they are made out to be – at least not in the developed world. In [Social Vulnerability in European Cities: The Role of Local Welfare in Times of Crisis](#) (2014), researchers Costanzo Ranci, Taco Brandsen and Stefania Sabatinelli found that, after a long period of fertility decline, many European cities have experienced “unequal but definite growth” in the number of births in the years between 2000 and 2009. In almost all of the cities studied, fertility was higher



METHODOLOGY: FERTILITY AND CITIES


To investigate fertility differences between cities and the countries in which they are located, a common indicator is needed. The crude birth rate and the fertility rate are the standard fertility measures used for comparison. Fertility rates are, in most cases, not available at a sub-national level.

In order to create a tool, the number of live births and the total population of the countries and cities were analyzed. The data for European cities were drawn from the [Eurostat database](#), while the equivalent US figures were taken from local city or state websites.

The population composition of countries and cities can nevertheless differ significantly. Cities tend to attract younger people, therefore their median age might be considerably lower than the overall country. A crude fertility measure like the crude birth rate (live births per 1000 people) does not take this into account. Therefore, the crude birth rate was adjusted by dividing the number of live births by the population at fecundity age (15-44). This measure better reflects the fertility differences adjusted for a possibly differing population composition.

than at the turn of the century. In many cases, the average number of children per woman of childbearing age in urban areas was above the national average.

Recent research conducted by the International Pensions unit of Allianz supports these findings: in fact, on average, the birth rate in 41 major European and US cities is actually 7% higher than the national average of the country in which the city is located. In this study of fertility in cities in Europe and the US, crude birth rates (CBR) were calculated and compared with national birthrates to see if urbanites evince either higher or lower fertility than their rural counterparts. Given that the age profile of cities differs from the countryside (cities attract the young), the CBR was calculated only on the basis of people in fecundity, or what demographers consider peak childbearing years (ages 15-44).

The list studied includes European capitals and cities with more than 1 million inhabitants. These range from megacities such as London and Paris, with over 10 million inhabitants each, to small capitals such as Malta's Valletta. The higher fertility pattern transcends borders: Lisbon (+50%), Bratislava (+31%) and Birmingham (+17%) lead the table in terms of excess crude birthrate. 

Nevertheless, there were also cities with a considerably lower adjusted birth rate than the countries where they are located. In Dublin (21%), Paris (17%) and Helsinki (17%), populations tend to have a lower fertility than those in the countryside.

Some surprising numbers emerged from the six US cities also studied. In New York City, the adjusted birth rate was +5% compared with the national average; in Chicago it was +3%, and in Dallas, +17%. Conversely, Washington, DC (-6%) and Boston (-24%) had birth rates below the national average.

PRICE TAG OF BABIES

It is often assumed that an urban environment tends to dampen fertility because the cost of raising children is higher in cities. Yet, surprisingly, cities with some of the highest living and housing expenses actually show an excess crude birthrate.

As mentioned, NYC's birth rate is 5% higher than the US national average despite being one of the most expensive cities in the world – with average monthly rents exceeding \$4,000 and the average apartment price at \$1.95 million. Munich, which has one of the highest costs of living in Germany, also has a 5% higher fertility rate than the German average. In London – where, according to CNBC, property prices are rising \$7.50 (£5) every hour – women bear 8% more babies than the national average. Some Nordic cities also have a higher fertility rate than the respective national average, with Stockholm (+13%), Copenhagen (+14%) and Oslo (+16%) all appearing to be great places for parents despite high living costs.

One explanation is that people in cities tend to be more highly educated and therefore generally earn more money, which can offset the high costs of housing. Part of the economic strength of cities is that they also host large companies, which are more likely to offer parental leave and other child support schemes – luxuries that may not be present in rural areas.

PREDICTING FERTILITY

In the developed world, cities appear to be the wellspring of population growth. Why then does the

CASE STUDY: STOCKHOLM

The capital of Sweden, Stockholm, is one of the fastest-growing urban centers in Europe. A 2015 analysis for the Stockholm Chamber of Commerce predicts that the city's population will grow 11% by 2020, topping 1 million inhabitants.

Some of the rapid population growth has been attributed to record inflows of immigrants and asylum-seekers. However, researchers have also found the city's rising birth rate linked to the incidence of increasing numbers of women of childbearing age moving to the city, both native and foreign.

Swedish online newspaper *The Local*, in a 2012 [report on Stockholm's baby boom](#), quoted demographer Ulla Moberg: "It's actually well-educated women who are moving here from across Sweden. They have a high fertility rate. Immigrant women equally so." Nationally, according to administrative agency Statistics Sweden, Swedish-born and foreign-born women have an equal number of children on average.

In any case, Stockholm's fertility rate is 13% higher than that of the rest of Sweden. While this may be welcome news for a country with one of the oldest populations in the world, the numbers will test the city's infrastructure, as over 1,000 new pre-schools will need to be built to accommodate the increase in young pupils.

perception exist that cities are fertility traps? Experience shows that, as countries develop and become richer, fertility rates fall, so it is understandable that cities are seen, if not as the actual cause of low fertility, then as a symptom of it. The paucity of studies comparing fertility rates between cities and the countryside in developed countries reinforces this perception.

Another reason is that the factors influencing fertility change across time and space, so shifts in fertility present a research challenge for demographers and economists alike. For example, the causes of the Western fertility phenomenon known as the "baby boom" are still poorly understood. Experts, such as professor [Richard](#)

IS THERE SOMETHING IN THE WATER?

If you've ever worked in an office environment and had to say farewell in short succession to a series of pregnant colleagues, the thought must have crossed your mind: "Is it infectious?"

In a sense, it may be. Evidence hints that there is an effect called "fertility contagion". It seems that personal network contacts, such as coworkers or friends, can be pivotal in shaping decision on both fertility timing and the number of children.

In a 2003 study of women in Lombardy in Italy, Laura Bernardi found that peer groups exercised more influence on family formation and fertility decisions than the families of prospective parents. Other small-scale qualitative studies have had the same result. For example, in 2010, Lena Hensvik and Peter J Nilsson showed that, when someone at a workplace has a child, the probability of another co-worker having a child increases. This contagion effect is shown to be strong and increasing between 12 and 24 months after the colleague's child has been born.

There has been little work on how this phenomenon may play out in an urban area, but Charles F. Manski and Joram Maysnar (2002) investigated the substantial fertility increase (from three to six children per women) among ultra-orthodox Ashkenazi and Israeli-born Jews. One of the two key factors they identified as important in this increase was social interaction, as each woman is influenced by the fertility decisions of other women.

Easterlin from the University of Southern California, have suggested that the renewed optimism and prosperity of the period following the Second World War led to an increase in birth rates, but this theory loses plausibility when closely examined.

While this may reflect the situation in the US, it doesn't explain the baby boom in countries where the boom started during the war, such as Denmark. Nor does the theory explain differences in timing. For example, Sweden experienced its highest fertility in 1946, while neighboring Norway saw

its peak in 1964 (see PROJECT M online 12/2014, "Age invaders: The last baby boomer turns 50").

BABY-BOOMING CITIES

As with the baby boom, the new Western phenomenon of baby-booming cities appears to have several interrelated causes. First, cities represent a great location for work-life balance, particularly if both partners want to pursue a career. Short distances and a comprehensive infrastructure offer young parents easier access to childcare.

Another factor might be shifting attitudes. Based on historical experience, economists – in their cold, hard language – tend to see children as "inferior goods": just as the demand for potatoes falls as incomes rise, so does the demand for children. But this seems to be changing among affluent city dwellers. As the 2013 BCA Research report *The Coming Baby Boom in Developed Economies* points out, it is possible that not only have children become "normal goods", they may also be on their way to being viewed as "Veblen goods" – commodities for which demand increases in proportion to their growth in price, named after economist Thorstein Veblen (who also created the term "conspicuous consumption").

Another description for these urban children might be "status symbols." After all, "what better way to signal that one has made it than to be able to afford to raise five kids in Manhattan or Beverly Hills?" the BCA researchers ask. This phenomenon, which they term the "Brangelina effect" (after actors Angelina Jolie and Brad Pitt, who have six children), is evident in Allianz data in which a city's prosperity is closely linked to fertility.

In Slovakia, Bratislava, which is among the top three cities in the analysis on fertility, has a GDP per capita over 130% higher than the Slovakian national average. Other wealthy cities – such as Frankfurt, Warsaw and Tallinn – also have high excess fertility. Conversely, poorer cities – such as Liverpool (GDP per capita 30% lower than the UK average), Manchester (GDP -18%) and Berlin (GDP -17%) – perform below average in terms of fertility. ☞

BIGGER CITIES, MORE BABIES?

Melinda Mills, Nuffield Professor of Sociology at the University of Oxford, notes that the Allianz results reflect a trend in industrialized nations. “We see a U-shape when looking at the socio-economic gradient,” says Mills, whose research focuses on human fertility and partnerships. “You see considerable numbers of children in lower

socio-economic groups – but also within this a group – often called the ‘working poor’ – that is struggling and having few children. Conversely, there are the higher-educated and higher socio-economic groups, and in some countries they are having more children simply because they can afford it.”

FERTILITY IN CITIES

Country	National Adjusted Crude Birthrate	City Adjusted Crude Birthrate	City	Difference
Portugal	20.3	30.6	Lisbon	50.5%
Slovakia	22.9	30.1	Bratislava	31.3%
United Kingdom	30.6	35.9	Birmingham	17.4%
United States	30.9	36.1	Dallas	16.8%
Belgium	29.8	34.6	Brussels	16.1%
Norway	28.6	33.2	Oslo	16.0%
Poland	22.6	26.0	Warsaw	14.9%
Denmark	26.2	29.8	Copenhagen	13.6%
Sweden	30.2	34.2	Stockholm	13.2%
Germany	22.8	25.7	Frankfurt	12.6%
Italy	23.9	26.8	Milan	12.3%
Italy	23.9	26.3	Turin	10.4%
United Kingdom	30.6	33.0	Greater London	7.9%
Estonia	26.3	28.3	Tallinn	7.6%
Netherlands	26.8	28.6	Amsterdam	6.7%
Czech Republic	24.5	26.1	Prague	6.4%
Austria	22.1	23.4	Vienna	6.2%
Italy	23.9	25.2	Naples	5.8%
Latvia	24.3	25.5	Riga	5.3%
Spain	23.2	24.4	Madrid	5.2%
United States	30.9	32.5	New York	5.2%
Germany	22.8	23.9	Munich	4.9%
Germany	22.8	23.5	Cologne	3.0%
United States	30.9	31.7	Chicago	2.6%
Germany	22.8	23.1	Berlin	1.6%
Switzerland	25.8	26.1	Zurich	1.3%
United States	30.9	30.7	Los Angeles	-0.8%
Germany	22.8	22.4	Hamburg	-1.7%
Hungary	21.9	21.5	Budapest	-1.7%
Bulgaria	23.7	23.1	Sofia	-2.4%
Malta	22.5	21.8	Valletta	-3.3%
United Kingdom	30.6	29.5	Manchester	-3.6%
Slovenia	26.6	25.6	Ljubljana	-3.9%
Spain	23.2	22.1	Barcelona	-4.7%
United States	30.9	29.0	Washington	-6.1%
Romania	23.4	21.4	Bucharest	-8.9%
United Kingdom	30.6	27.1	Liverpool	-11.6%
Finland	29.6	24.7	Helsinki	-16.6%
France	34.0	28.3	Paris	-16.7%
Ireland	38.7	30.5	Dublin	-21.2%
United States	30.9	23.5	Boston	-24.1%

Source: Eurostat, local US city and state data plus own calculations

PROJECT M

Another factor to consider is “fertility contagion.” Could close proximity to families with children in densely populated urban centers be a driver of fertility? There is research indicating that a woman is more likely to become pregnant in the 12 months after one of her siblings or a member of her peer group becomes pregnant. Could this “social networking” pregnancy phenomenon extend further, through the closely interlinked social landscapes that cities provide?

Finally, immigration can have an important influence on fertility rates in cities – especially in Europe, which has experienced a dramatic increase in immigration over the last decade. BCA Research shows that immigrants in developed economies tend to have much higher fertility rates than the native-born population, with non-European immigrants in France, Sweden, Norway and Denmark having on average twice as many children as native Europeans.

In their research into birth rates in European cities, Ranci, Brandsen and Sabatinelli conclude that the 2000-2009 increase is partly due to the recent immigration flows experienced in a number of cities, including Birmingham, Bern, Milan and Barcelona. However, “a birthrate increase can also be clearly observed among indigenous populations.”

FERTILE GROUND

Cities, it seems, have been incorrectly labelled as fertility traps. As the crowded primary schools and footpaths jammed with prams from Notting Hill in inner London to Glockenbach in Munich attest, cities can actually be fertile grounds.

In its report, BCA Research boldly predicted that developed economies “are about to experience a baby boom that will be bigger and longer-lasting than even the one that followed the Second World War.” Whether this will in fact happen, and could be linked to increasing urbanization, is unclear.

Danny Dorling, a professor of geography at University of Oxford is doubtful. The author of *Population 10 Billion* suggests that a large part of the increase in births in recent years was due to pent-up

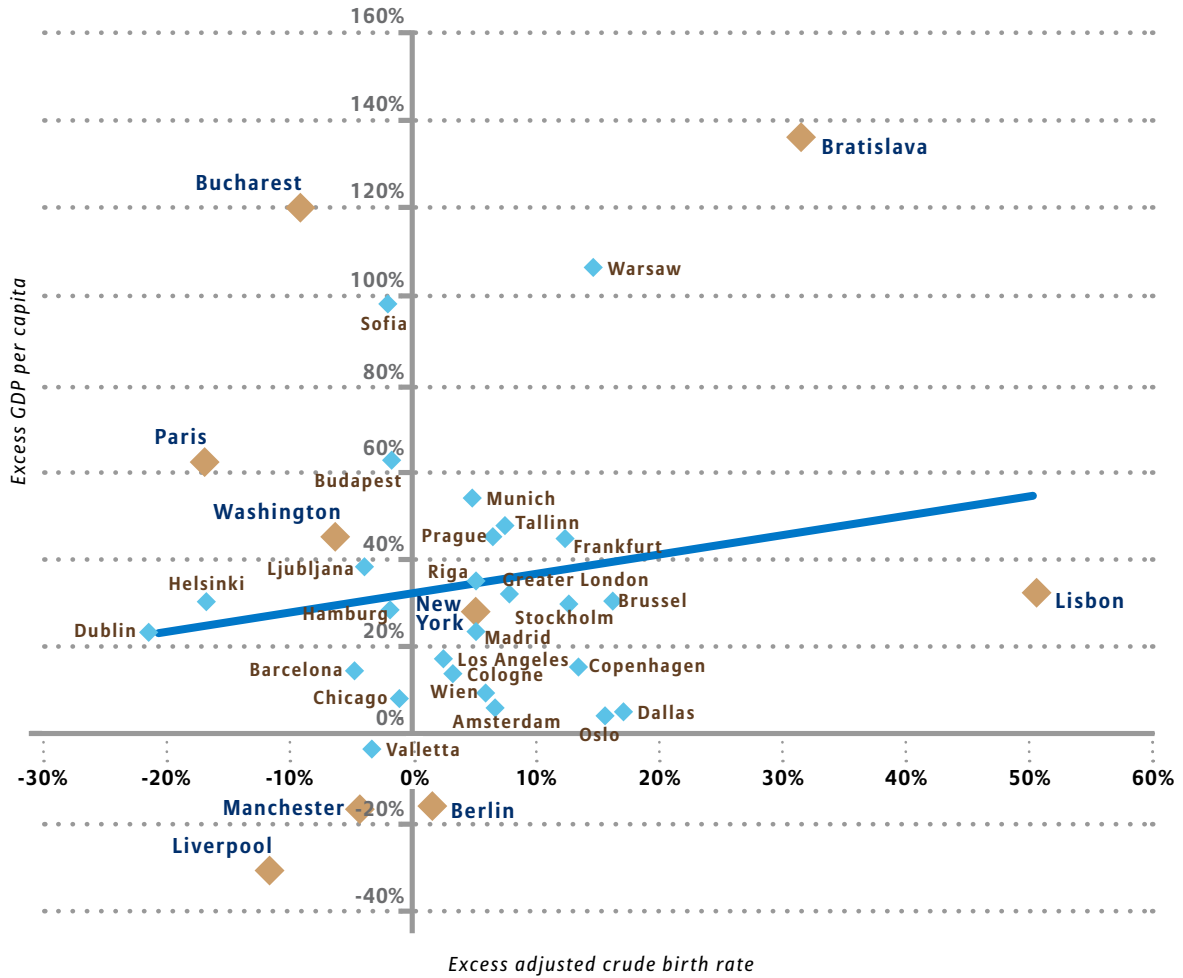
demand. In the UK at least, this was the result of the dramatic increase in the number of people going to university in the early 1990s. As graduates wait longer to have children than non-graduates, and as more women in their 20s in the 1990s were obtaining degrees, they waited longer to have children. By his calculations, the UK boom is almost over.

Regardless of whether there is an urban baby boom or bust, it is clear that cities will not present the solution to the demographic predicaments plaguing developed countries. Of the cities surveyed, only Dallas and Birmingham have fertility rates of 2.1 children per women, the number considered necessary for one generation to replace itself without immigration. Five other cities – Brussels, Stockholm, Oslo, London and New York – have fertility levels just under the replacement rate.

What this means is that the baby bounty of cities, while a demographic bonus, does not represent a solution to aging societies. This is particularly true in Europe, where no country has a fertility rate at replacement levels. Countries need to find other ways to sustain their population, economy, public services and pensions systems.

Cities that provide a good work-life balance and flexible, stable working environments – particularly for working mothers, in communities where there are positive attitudes about children and where there is gender equality of labor in the home – can be part of the solution. If this is achieved, then other adults may be encouraged towards parenthood, and urban streets will not be as bereft of laughing, playing children as once was feared. _____

GREATER WEALTH, MORE CHILDREN?



Source: US Census plus www.brookings.edu/research/reports/2015/01/22-global-metro-monitor and own calculations

© Allianz – International Pensions

PROJECT M

CHILDREN AS A “LUXURY GOOD”

US comedian Tina Fey once wrote about New York that “four beautiful children named after kings and pieces of fruit are a way of saying, ‘I can afford a four-bedroom apartment and \$150,000 in elementary-school tuition fees each year. How you livin’?” This trend is not confined to New York. When the GDP per capita and fertility of a city is compared to the country in which it is found, there is a correlation between excess GDP and fertility. Bratislava, the capital of Slovenia, has a per capita GDP of more than 130% of the national average, and an excess fertility rate of more than 30%. Lisbon, which is only 30% wealthier than Portugal as a whole, has a fertility rate 50% higher. Other wealthy cities, such as Frankfurt, Warsaw and Tallinn, also have high excess fertility. Bucharest and Paris are outliers in that they are wealthy, but have fewer children than the national average. At the other end of the scale are less affluent cities such as Liverpool (per capita GDP 30% lower than the UK average), which has a fertility 11.5% lower than the national average. Other less prosperous cities, such as Manchester and Berlin, perform below average in terms of fertility.

MASTHEAD

Publisher and Editorial Office
Allianz SE
International Pensions
Königinstrasse 28
80802 Munich, Germany
projectm@allianz.com
www.allianz.com

Contributors:
Richard Wolf, Greg Langley, Jessica Formby

Closing date: February 2016

Copyright: The contents of this magazine are protected by copyright law. All rights reserved by Allianz SE.

Notice
The opinions expressed in the articles in this magazine do not necessarily reflect the views of the publisher or the PROJECT M editorial team.

Photo Credits:
Cover: Ray Moore
P.2-3 Luca Zordan/gallerystock.com

Important Information

Investing in the markets involves risk. The principal value and return of an investment will fluctuate over time, and an investment may be worth more or less than its original cost when redeemed. Past performance does not guarantee future results.

Diversification and asset allocation do not assure a profit or protect against loss in declining markets.

PROJECT M is issued in the U.S. by Allianz Global Investors Distributors LLC, 1633 Broadway, New York, N.Y. 10019, member SIPC. The materials in this publication are based on publicly available sources verified at the time of release. However, Allianz SE does not warrant the accuracy, reliability or completeness of any information contained in this publication.

Neither Allianz SE nor its employees and deputies will take legal responsibility for any errors or omissions. The magazine is intended for general information purposes only. None of the information should be interpreted as a solicitation, offer or recommendation of any kind. Certain of the statements contained herein may be statements of future expectations and involve known and unknown risks, and uncertainties that may cause actual results, performance or events to differ materially from those expressed or implied in such statements.

No duty to update

The company assumes no obligation to update any information contained herein.

To subscribe to PROJECT M or provide feedback, contact:

projectm@allianz.com
www.projectm-online.com

Join us on **twitter.com/projectmonline** and **youtube.com/projectmonlinevideos**

