



Investment Strategy Group

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Investment Strategy Bulletin

Population growth & investment returns

As investors we are constantly confronted by arguments that rapid population growth should feature as a double edged sword in our investment outlook. On the one hand, population growth is placing unreasonable demands on finite resources and could drive agricultural and energy commodity prices higher. On the other hand, rapid population growth is expected to seed higher demand for goods and services, boosting investment returns in emerging equity markets (i.e. China, India, etc).

But what does the historical data say: is rapid population growth good for equity market returns?

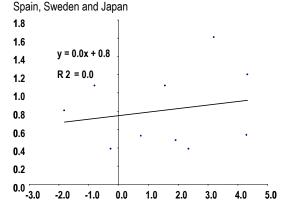
We have looked at the data provided by the economic historian Angus Maddison, in his book *The World Economy: A Millennial Perspective*. The data cover 31 countries from 1920 to 1996, with each country having a minimum 36 years of data with the 10 majors in the upper chart having 76 years of data. The data show that **there is no positive relationship between population growth rates and equity price returns** over much of the span of the 20th century (the conclusion is not impacted by the war).

The lower chart takes all 31 countries, breaks them into 5 groups (or quintiles) according to population growth (the fifth quintile is the group of countries with the fastest population growth) and shows the median annualized equity market return within each population growth bucket. Interestingly, the fastest growing countries delivered the worst return whilst the slower population growth countries delivered the best returns! What we can be certain of is that there has been no significant and positive relationship between equity returns and population growth.

Why might population growth have no positive impact on returns and if anything has a negative impact? One reason may be that in the competition for the spoils from economic progress, rapid population growth tips the balance in favor of labor versus capital as governments implement policies to maintain social cohesion and stability. Indeed, rapid population growth creates significant social pressures leading government to develop policies aimed at reallocating returns from capital to labor, thereby capping equity returns. Also, rapid population growth tends to deliver poor productivity / per capita GDP growth due to excess labor supply, therefore lower earnings per share growth and poorer equity returns.

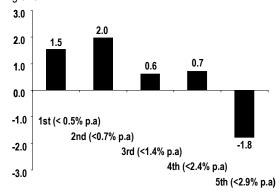
The key to strong equity returns in the long run, besides valuation, is not the rate of growth of GDP or the rate of growth of population but a combination of the two: i.e. per capita GDP growth or productivity. In the current environment, this is reflected in our bias towards developed versus emerging markets.

Annualized equity market price return (horizontal axis) vs. Annualized population growth for 10 developed countries (represented by the dots), 1920-1996 USA, UK, Canada, Belgium, France, Germany, Holland,



Median annualized equity price return for 31 developed and emerging countries ranked by population growth quintile

1st quintile = one fifth of countries with slowest population growth



Source: Angus Maddison, The World Economy: A Millennial Perspective

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