Discussion

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My discussion today will focus on four issues: the main lessons of Ralph Bryant's paper, implications of the paper for G-20 policy-makers, some questions about the assumptions in the paper, and possible extensions of the paper.

Main lessons of the paper

I drew three main lessons from this paper. First, demographic change is likely to lead to a shrinking of the excess of saving over investment in developed economies (which Ralph labels the 'North'). This is particularly true in the rapidly ageing regions of Europe and Japan, so that, in the future, the capital account surpluses of these regions will decline. Second, in developing countries (the 'South') the demographic effect will work in the opposite direction: saving will increase relative to investment and the current account balances of these countries will increase. Third, the degree of cross-border substitutability has important implications for future evolutions of real exchange rates, as I will discuss further below.

Starting with current account issues, Ralph highlights the striking differences in active ratios as population ageing causes the proportion of the population of prime working age in the North to decline and, in the South, to increase. In Ralph's model, these demographic trends cause the South region's current account to GDP ratio to increase until around 2030 and then to decline as an increasing proportion of its population enters their asset-decumulating retirement years.

Another interesting result is the magnitude of the future real exchange rate adjustments projected in Ralph's paper. In the benchmark case, the South's real exchange rate is projected to depreciate by as much as 70 per cent in order for the North to absorb the South's output (which increases strongly as its active ratio rises). This represents a striking deterioration in the South's terms of trade and points to the important consequences of cross-border goods substitutability in determining welfare outcomes. Indeed, Ralph shows in his paper that increased goods substitutability enhances the welfare of the South.

A caveat to this discussion, however, is that what we have here are mainly accounting reactions as saving and investment rates adjust mechanically to demographic change. Of course, at this workshop we are also concerned with behavioural reactions, of which there may be many. For example, if governments reduce the generosity of public pension systems, households may save more. And lower pension payments may also increase public saving. Presumably, these behavioural reactions will also affect the current account and exchange rate projections in Ralph's paper.

Relevance for G-20 policy-makers

One interesting conclusion that I draw from the paper is that its projections are rather reassuring in terms of financial stability. For many developing countries, relying too much on foreign borrowing, especially when it is denominated in foreign currencies, has often been described as the 'original sin'. Sudden reversals of capital and financial flows have frequently been the cause of great economic hardship. Ralph's paper, however, offers the long-term prospect of current account surpluses in the South helping to rebalance the net foreign asset positions of the North and the South. Hopefully, this rebalancing will help to reduce the likelihood of the type of financial crises we have experienced so far.

Another conclusion that may be of interest to G-20 policy-makers relates to the question of cross-border substitutability. If greater cross-border substitutability increases the welfare of those in the South, then this may provide a rationale for promoting greater trade flows by reducing barriers such as subsidies and tariffs. This could provide additional motivation to revisit the current round of World Trade Organisation negotiations, despite disappointments of late.

Questions

My first question is whether the division of the world into two regions, the North and the South, is perhaps too arbitrary? While there are large differences in demographic characteristics between the North and South regions in Ralph's paper, there are also considerable differences within each region and these differences are projected to continue. When we look at active ratios, it strikes me that, by around 2050 the populations of some countries in the North region, such as the United Kingdom and the United States, will closely resemble that of China, with active ratios of around 55 per cent. In contrast, some other countries in the North region, such as Japan and Italy, will have active ratios of close to 45 per cent. Potentially, these differences in demographic characteristics could translate into large variations in economic outcomes. One could also think of some cases, for example if Turkey were to join the European Union, where the potential for rapid economic development could make it sensible for a country currently in the South to be reclassified as being part of the North.

Another question relates to the 'no migration' hypothesis. We have already talked about the possibility that there may be scope for more migration from the South to the North. But what about migration from the North to the South? Already, we see non-trivial numbers of elderly people migrating to countries in the South to access cheaper healthcare, or lower costs of living more generally. I wonder whether this trend might have implications for Ralph's results.

Possible further work

There is increasing interest in the implications of demography for macroeconomic policy. As an illustration, last week at the European Central Bank we held a seminar for central banks on the implications of demographic shocks for monetary policy. Another example is the interesting report published last September by the G10.[1] I think we need more and more of this analysis to better integrate demographic factors into our theoretical frameworks. In particular, I would like to see the development of more realistic, integrated economic models – the 'first best' referred to by Ralph. In the meantime, Ralph's paper provides us with a fine starting-point, but much more needs to be done to ensure that this work can best inform policy responses.

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1. See G10 (2005), 'Ageing and Pension System Reform: Implications for Financial Markets and Economic Policies', a report prepared at the request of the Deputies of the Group of Ten by an experts group chaired by Ignazio Visco, Central Manager for International Affairs at the Banca d'Italia.

General Discussion

An important theme raised in the discussion was the need to consider the implications of falling fertility and rising longevity separately. One participant questioned whether rising longevity would have any substantial impact on financial markets if retirement ages increase sufficiently to ensure that the proportion of life people spend in the workforce remains constant. While accepting that increased labour force participation could moderate the impacts of demographic change, other participants thought that rising longevity would still affect financial markets even with proportionate increases in retirement ages. In particular, they noted that, even if the proportion of life individuals spend in retirement were to remain stable, individuals would still need to save more to fund extra years in retirement and that this would boost capital-labour ratios. These changes, in turn, would affect asset prices and rates of return. In line with the discussion of the previous session, one participant questioned whether it was feasible to expect that retirement ages will increase in proportion to rising life expectancy, given the historical tendency for the number of years spent in retirement to increase in response to rising incomes. However, another participant argued that further extensions in the share of life spent in retirement would depend on the balance of future gains in income and longevity and the role of public policies. Left to choose retirement ages freely, one participant thought that individuals might choose to extend both their working lives and time spent in retirement.

A related issue that provoked some discussion was the usefulness of concepts such as elderly dependency ratios to project future labour force participation rates. One participant suggested that these concepts exaggerate the impact of population ageing as the labour force participation of the elderly is likely to increase in the future. Ralph Bryant responded that he had run simulations with later retirement ages but that the impact of these changes was small as they do not affect the relative age distributions across countries that drive global capital flows in his model.

A number of participants questioned whether demographic change will produce substantial movements in asset prices. One participant noted that long-term returns to capital in many countries had remained relatively stable over long periods despite substantial changes in demography, technology and economic structure and institutions. Other participants, however, argued that these past experiences may not guide future performance, particularly in light of the unprecedented pace and extent of population ageing likely to occur in many countries. In a similar vein, one participant commented that the demographically-induced international capital flows in Ralph Bryant's paper are small relative to the large current account imbalances currently witnessed in many countries. This suggests that, while global capital flows may help countries to manage the impact of demographic change, they are not a substitute for domestic reforms to pension systems and financial markets.

The ability of simple life-cycle or dynastic models to predict future saving patterns was also discussed at length. One participant noted that life-cycle models generally cannot explain the direction of global capital flows, either in the past or in the present. A number of participants also noted that most empirical work

rejects the dynastic model as a reliable explanation for household saving patterns, at least for developed countries. In response to this comment, Henning Bohn noted that his paper had emphasised that the dynastic model is most usefully applied to developing countries and that he still felt it had some value in explaining saving patterns in these countries.

Finally, there was some further debate about the impact of demographic change on capital-labour ratios. One participant argued that population ageing may cause a decrease in capital-labour ratios if governments are forced to increase taxes to pay for old-age pensions and health care, thereby crowding out private saving. Henning Bohn agreed that the introduction of a government into simple overlapping generations models could result in lower capital-labour ratios in response to population ageing. But he argued that it was the reluctance of individuals to save rather than the existence of public pension systems that caused this outcome. Another participant questioned whether the papers should have considered the impact of demographic change on total factor productivity, arguing that individuals tend to become less productive as they age. Related to this, one participant noted that declines in fertility from very high levels in many developing economies permitted parents to provide their offspring with better educations. This in turn helped to offset the impact of lower fertility on the size of the labour force by working to increase the labour force when measured in efficiency units. Ralph Bryant agreed that changes in productivity would have important implications for the results of any model, but suggested that the directions of these movements are too uncertain to make them a worthwhile addition.