6. Growing by saving and investing - population

In the previous articles I explained that if people consume less now, they can save more for later and more can be invested. Investments are made in production goods, which are sold in the chain of the production structure to an increasingly higher stage, ultimately resulting in more consumer goods being offered to society.

Without investment, the production structure will deteriorate, after all, without maintenance wear and tear will take place and things will break. If we invest extra for later, the economy will grow and vice versa. If less is invested than it is necessary to maintain the production structure, the economy will shrink. An aging and shrinking population, for example, gradually needs less consumption.

In this article I describe 4 combinations of a growing or declining society in terms of number of people and a growing of shrinking society in terms of ´economic growth´. Under all scenarios I assume a constant money supply, meaning there are no monetary policies by central banks and there is no fractional banking.

1. *Growth and More people*

Generally speaking, this is the scenario we have for instance seen in the 20th century. Population throughout the world has increased and economies are seen as having expanded. Society is growing, presumably because more children are born than people are dying.

The interest rate will have the tendency to go down, as time preference will shift towards a longer future. More and more money will be saved and invested for future purposes, the production structure expands, allowing the growing population to consuming more in the future. The supply of consumption goods will increase over time, resulting in lower consumption prices means and improvements in the purchasing power of money. The downward pressure on consumer prices will not be undone by an expansionary monetary policy and by a growing money supply.

With a constant money supply, existing money can only be spent once. Theoretically, it would be possible for people to increase the speed up spending their money, in other words, by increasing the velocity of money. In the spirit of Say's Law, people can only spend money faster if they are also earning money faster, for instance by working more. Although this is always possible, I am not assuming this to be a sustainable situation under this and the other scenarios and in order not to overcomplicate. Key under this scenario is foremost that an improving purchasing power means that people are able to consumer more with a same amount of money available to them.

More supply means that prices will have the tendency to coning down, although it is also likely that consumption will shift over time into products with better quality. In case consumption shifts to more luxurious products, it is difficult to say what happens to a CPI number, as with a shifting consumption basket the current consumption cannot be compared like for like with past consumption. With a growing labour supply and a growing employment due to the increasing investments, there is no need to invest in more capital intense ventures per se. However, with the availability of new technologies for sure investments will be tuned to making the best use of these.

The monetary value of all final goods and services may not go up necessarily, as these goods and services are expressed in declining prices. Clearly though the number of goods consumed and services purchased will go up. Real GDP will go up because there are more and more people

supplying and consuming. Because the money saved and invested results in productivity gains, real GDP per capita will go up as well.

What matters in the end though is even not so much the real GDP per capita, but if people in society have improved their situation.

2. *Growth with less people*

This is a relevant scenario for many countries in the beginning of this 21st century. Several countries in Europe for instance Hungary and Italy, and also for instance China, are facing a declining population. Governments and most economist today are seeing a shrinking population and a worrisome development. For Austrian School economists this is not an issue whatsoever.

If a society is declining in numbers, I am assuming this is the result of birth rates being too low to compensate for people dying naturally. If people in this society want to grow, this means they have to consume less and save more with a view to investing more in their production structure. In this case there are two opposing forces at work: Interest rates declining as people are saving and investing more and interest rates rising as an ageing society results in a shift in the overall time preference of society. It is impossible to say which force is strongest, so I keep it at concluding that interest rates may stay roughly the same.

The same applies to the overall price level. More investments enables this society to build a stronger production structure. With a declining labour supply there will be a need to invest in more capital intense ventures. Consumption will shift as well, not only towards more quality or towards more luxurious products and services, but also as older people have a different consumption pattern that younger people. There will be more consumption, higher prices, more employment and higher wages in for instance elderly care. With a shifting consumption basket it may be less meaningful to compare CPI levels.

The same also applies to developments in the nominal GDP. Due to a more efficient and more effective production structure, the number of goods and services may well go up. But, less people active in the labour market will have a dampening effect on the supply of goods and services. More growth under this scenario may mean a lower GDP and a higher real GDP per capita.

In the end, what GDP or what real GDP numbers will be generated by this society does not matter for the people themselves. For governments though it is sometimes hard to accept a smaller population, as their subjective preference may well be for a country that is becoming more relevant as measured by their population.

3. *Shrinking with less people*

Shrinking with less people sounds logical at first. Still even a shrinking population would like to improve their situation, as per scenario 2. This is hence a less straightforward scenario. This may be a scenario where population is shrinking to such an extent that numbers as GDP-growth are also turning negative. Although chances currently are low for such a scenario, theoretically such scenario may develop in countries with a significantly declining population. As such, this is a relevant scenario to consider in case theory needs to be applied to practice.

For this society there is less need to investing in the future. Interest rates hence tend to go higher. Relatively speaking, the focus will be more on consuming now rather than investing, compared to the previous scenarios.

CPI may still go up. For one because there is a relatively increasing demand for consumer prices. Investments will still be made, but not enough to maintain the production structure. The production structure will shrink as well, with relatively speaking more investments going into the final stages, towards the consumption stage. Here, demand is higher, prices are relatively higher and hence it is more profitable to invest in the final stages. Investment returns will still be high though. Investments however will be done by less and less people.

GDP numbers will probably go down. Only in case of significant jumps in technological progress will this society be able to produce and consume more with a smaller population.

One of the reasons economists claim economic growth as in an increase in GDP-numbers is necessary, is that otherwise employment would go down and unemployment up. In this scenario one can argue that unemployment would not go down as a result of declining growth numbers, as the labour supply is on the decline too. From an Austrian School point of view though it is important to note that actually the relationship between GDP and employment is the other way around.

Normally speaking, there are always opportunities for people to improving the situation of other people. By meeting with the most important needs of other people first, and by going down the spectrum of need later, you can be sure you will be remunerated by offering a product or service of need which is positively valued accordingly. By executing on this employment opportunity, a product or service has been offered and an economist will have statistically increased the GDP number. With that a new day or new situation exists with new opportunities to meeting the demands of people in society. The increased GDP number is a reflection of past activities. The employment opportunity behind this increased GDP is now gone. S, an increasing GDP is a reflection of increased past employment and not a sign of growing employment opportunities in the future.

4. *Shrinking with more people*

Scenario 4 can best be described as a Degrowth scenario. A shrinking economy here especially means producing and consuming less products. The situation of people in such society is improved by better living circumstances and from an environmental point of view a more sustainable economy. Shrinking here means as such a lower statistical GDP number.

Obviously at the same this means an improvement in the situation of people. In the end, in all 4 scenarios growth is subjective, this is probably the best illustrated in a Degrowth scenario. 'Degrowth' is seen as growth and improving the situation of people in society by supporters of the Degrowth movement, whilst a shrinking economy is seen as a negative by the other part of society.

If people want Degrowth, without any monetary interventions they will get a shrinking economy. This society will invest less compared to scenario 1, as the idea is to consume relatively less in the future. Consequently, relatively more money (compared to 1) will be spent on consumption good. Whereas in scenario 1 a decline in CPI levels can be expected, this will be less or even not the case here.

Interest rates will be higher too compared to scenario 1, as less money is saved and available for investing. However, even in a Degrowth scenario, money will still need to be invested and positive

investment returns are still relevant. Investment opportunities may develop elsewhere, with for instance more focus on circularity. With a growing population though it may still be the case that GDP numbers are on the rise, as more people need to be housed and fed for instance. It may well be though that the GDP per capita will go down.

Conclusion

The way I describe the 4 scenarios are by no means meant to imply I know how such societies will develop. It is merely meant to illustrate that inflation and interest rates may develop quite differently depending on preferences of society and on the number of people in society.

Relevant is also the notion that central banks are implementing monetary policies without taking into account developments in population. Whether a population is ageing and in decline or still growing in numbers, the same economic models, assumptions about investment returns and policies are being applied. This begs the question how central banks should take into account such developments or if central banks should intervene at all. Before discussing this question it is important to have a closer look at what the Austrian School says about monetary policies and the side effects, before discussing the question 'to intervene or not to intervene?'.

PS A theoretical question under scenarios of a constant money supply is how investment returns can keep on being positive into eternity. The prices of production goods may go down as well. Growing with more people: what happens to stock prices? Mathematically you would assume returns to plateau out? We will come back to this later.