



October 2019

## How to invest in a low growth world

Part 1 of 2

*“Successful investing takes time, discipline and patience. No matter how great the talent or effort, some things just take time. You can't produce a baby in one month by making nine women pregnant.”*

**Warren Buffett**

### The challenge

As long-term readers of my work will be aware, I don't expect GDP to grow at a particularly attractive rate in the years to come, and the reason is simple – adverse demographics. Demographics affect GDP growth in a number of ways but, most importantly, ageing of society will have a profound, and negative, impact on aggregate demand.

As little can be done to affect demographics in the short to medium term, assuming you are looking for robust equity returns, and assuming respectable GDP growth is a necessary condition for solid corporate earnings growth, which again is key to decent equity returns, you are effectively left with two options. You either invest in countries with a relatively benign demographic outlook (and they are few and far between), or you invest in productivity enhancing technologies, as rising productivity is the only way to circumvent the demographic problem.

This is far too comprehensive a topic for one newsletter, so I have taken the executive decision to make this month's letter the first part of a 2-part letter – how to invest successfully in a low growth environment.

### ARP+

This topic is a classic example why we had to roll out ARP+. Regulations prevent me from being as explicit as I would like to be in this forum, and that is where ARP+ enters the frame. For what I believe is a very reasonable amount of money, I can be much more overt when discussing the opportunity set there.

If you are still considering subscribing, I can inform you that the topic in this month's and next month's Absolute Return Letters will be followed up

by a research paper on the same topic. I am planning for that to be published in November, but it will only be available to subscribers of ARP+.

Furthermore, we have just released a megatrend paper on disruption on ARP+. That paper goes hand in hand with the topic discussed this month. You can subscribe to ARP+ [here](#).

## The classic approach to growth theory

Allow me to begin with a bit of economic theory which suggests that GDP growth equals the sum of workforce growth and productivity growth. The logic behind that is relatively simple – let me explain. We can probably all agree that:

$$(i) \quad \text{Total Output} = \text{Number of Hours Worked} * \text{Output per Hour}$$

Using simple maths, that equation can be expressed as follows:

$$(ii) \quad \Delta \text{Total Output} = \Delta \text{Number of Hours Worked} + \Delta \text{Output per Hour}$$

$\Delta \text{Total Output}$  is just another word for  $\Delta \text{GDP}$  (with “ $\Delta$ ” meaning “change of”), and  $\Delta \text{Output per Hour}$  another word for  $\Delta \text{Productivity}$ . Hence, if I can prove that  $\Delta \text{Number of Hours Worked}$  equals  $\Delta \text{Workforce}$ , then:

$$(iii) \quad \Delta \text{GDP} = \Delta \text{Workforce} + \Delta \text{Productivity}$$

As it happens, the workforce, on an aggregate basis, works pretty much the same number of hours from one year to the next, i.e. the two are almost perfectly correlated. In other words,  $\Delta \text{Workforce}$  is virtually identical to  $\Delta \text{Number of Hours Worked}$ , i.e. (i)  $\approx$  (iii).

The two obvious conclusions from this is that, at the most fundamental level, only two factors drive GDP growth – workforce growth and productivity growth – and that, if we know that  $\Delta \text{Workforce}$  will be depressingly low (and in many countries negative) in the years to come, only robust productivity growth will result in any meaningful GDP growth.

One final note on (iii): When estimating  $\Delta \text{Productivity}$ , researchers calculate it by subtracting  $\Delta \text{Workforce}$  from  $\Delta \text{GDP}$ , i.e. it is the ‘everything else bucket’. This means that annual swings in productivity are affected by cyclical factors and can be quite dramatic; hence, using (iii) as a short-term indicator doesn’t tell you much. Think of it instead as a (very good) trendline indicator.

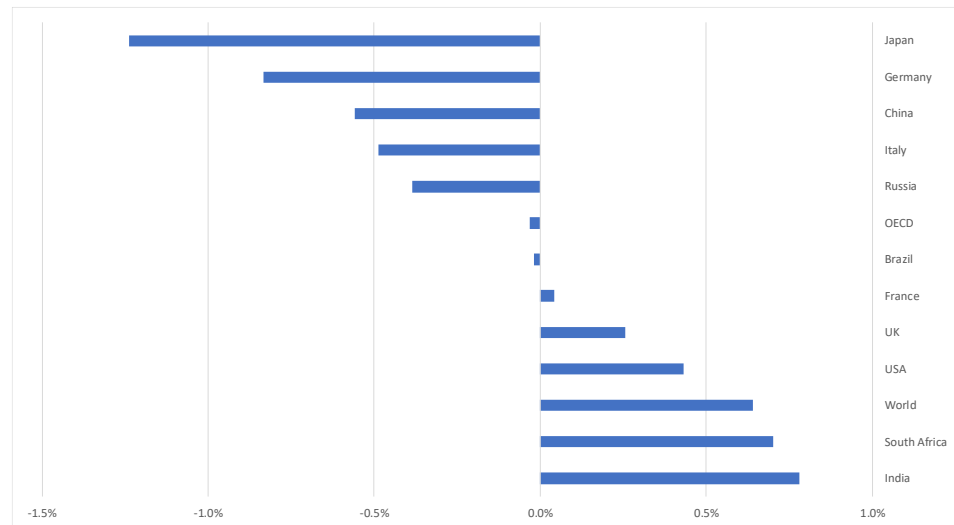
## The demographic outlook

As we have just learned, a growing workforce is one of two key drivers of GDP growth. It is no coincidence that global GDP grew vigorously in the 40-year span from 1960 to 2000 as the workforce grew robustly pretty much everywhere during those years.

Workforce growth has slowed dramatically in the last 10–15 years, and so has GDP growth – again, no coincidence. Now, in 2019, we are at the doorstep of even more challenging times. The workforce will actually shrink in many countries over the next few decades and, contrary to common belief, it is not only a phenomenon that will hit DM countries (Exhibit 1).

As you can see, Japan, Germany and Italy will all be greatly affected by this trend, but so will China and Russia (and many other EM countries). In fact, in the EM world, only India and the continent of Africa will see their working age population increase meaningfully between now and 2050. Those two

account for most of the 0.64% annual growth in the global working age population that OECD projects over the next 30 years.



**Exhibit 1: Average annual change in working age population, 2019–2050**

Note: Working age population defined as the number of people aged 20–64

Source: [OECD](#)

From an investment point-of-view, there are two ways you may approach this hurdle. If you believe, as economic theory prescribes, that a shrinking workforce will result in low (or even negative) GDP growth in the years to come, you would want to stay clear of countries like Japan, Germany and Italy. Instead, you would invest mostly in the US, as that is the OECD country to experience the most respectable workforce growth between now and 2050 (+0.43% annually).

There is another way to think about it, though, and that is what part 2 of this letter will be all about. Economic theory does not take into account the impact from advanced robotics and, in part 2, I will look at the following questions:

*In the digital age, does it really matter that the workforce will be shrinking? Won't robots just replace humans in the work process?*

Those two questions will be addressed next month. This month, I am zooming in on the classic approach; i.e. why a shrinking workforce will most likely lead to painfully low GDP growth, and how you can best get around that hurdle when investing.

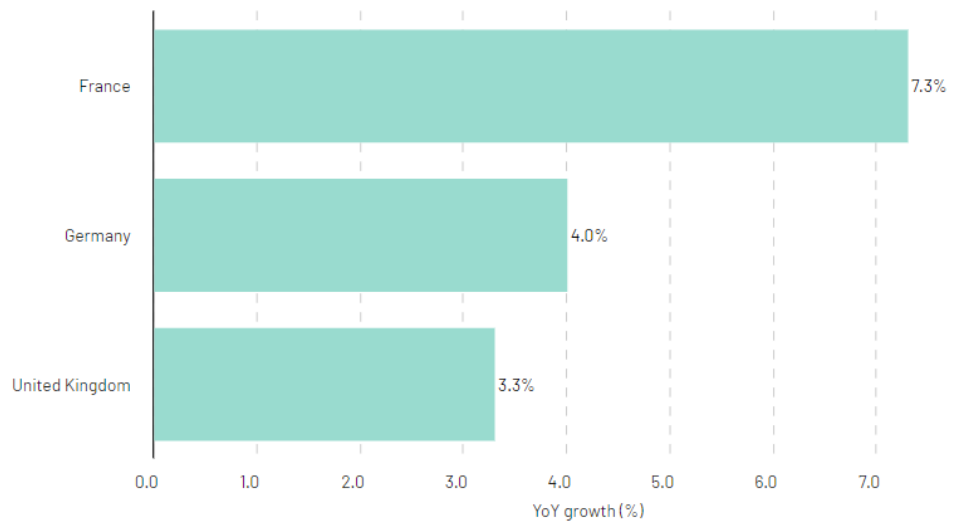
### A special note on France and the UK

Although overall workforce growth is already depressingly low almost everywhere, one part of the labour market continues to experience robust growth, and the industry that stands out is tech. The robust growth there is driven mostly by a high number of new entrants but, to a smaller extent, it is also the result of widespread re-training of the existing workforce.

I have noted that the tech workforce is growing significantly faster in France than it is in Germany and the UK (Exhibit 2), but that the existing ICT (information and communication technology) workforce is bigger in the UK than it is in the other two countries (Exhibit 3).

That implies that France and the UK are likely to be better equipped than Germany when it comes to human technology resources. There is not much

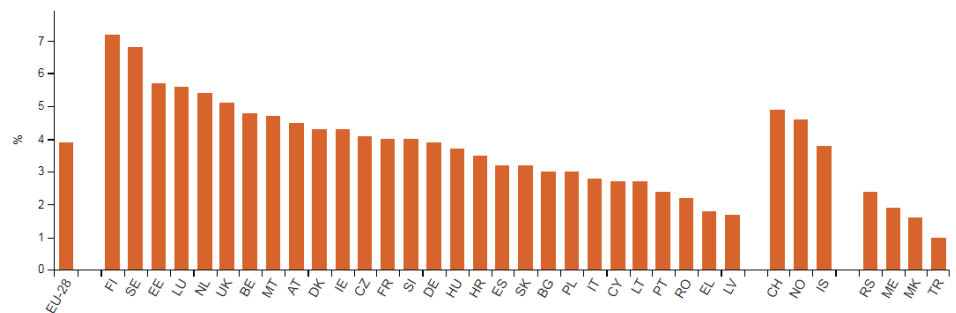
point in having access to all this fancy new technology if you are so short of human resources that it cannot be rolled out.



**Exhibit 2: Tech worker population growth in France, Germany and the UK, 2018**

Source: [StateOfEuropeanTech](#)

However, given the current Brexit mayhem in the UK, and given how much damage a disorderly exit from the EU will do to the British economy, I am not convinced I want to increase my exposure to the UK until the dust has settled on all this mess, and that could take years.



**Exhibit 3: Proportion of ICT specialists in total employment, 2018**

Note: An ICT specialist is an information and communication technology specialist.

Source: [Eurostat](#)

That leaves us with France as the most likely European winner of the forthcoming next wave of the digital revolution (advanced robotics, IoT, AI, blockchain, etc.). I must point out, though, that I have chosen to ignore some of the smaller European countries, e.g. Finland and Sweden, which are at the forefront of technological innovation (see Exhibit 3 again).

According to the OECD, France’s working age population (those aged 20–64) will grow by 0.04% annually between now and 2050, i.e. France is one of only a handful of European countries that will experience any growth at all in the working age population over the next 30 years.

France is therefore in quite a unique position – at least amongst the bigger European countries. In the years to come, overall workforce growth will continue to make a modest positive contribution to GDP growth, and a suitably trained workforce should allow France to roll out all those productivity-enhancing new technologies faster than elsewhere. That could

make France one of the most vibrant European countries over the next few decades.

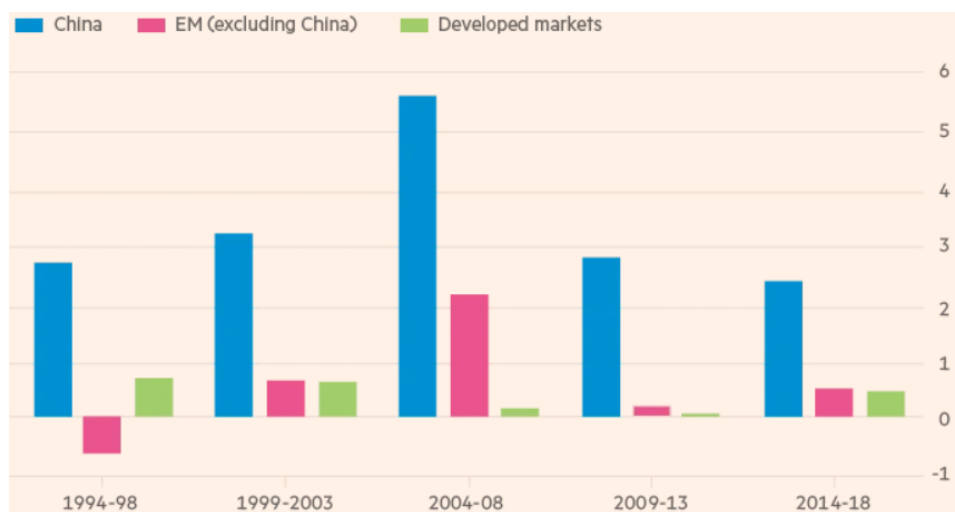
And the UK? Truth of the matter is that nobody knows. Here, four weeks before we supposedly leave the EU, the wider implications are unknown, as we still don't know the actual format of the exit. The only thing we (I) do know is that a Brexit without any exit agreement in place will be *very* painful for the average British tax payer.

### Why the EM outlook is not so straightforward

The ongoing conversion of the Chinese economy from a largely rural economy to a modern, and very competitive, urban economy is still ongoing and will most likely result in relatively high GDP growth for many years to come.

I can already hear your objection: “Haven't you just told us growth in the working age population is critical to GDP growth? And didn't you just say that the Chinese working age population will shrink? How can you then possibly expect Chinese GDP to grow quite decently for many years to come?”

The answer is high productivity growth in China – much higher than elsewhere. Whereas annual growth in labour productivity in the developed world has averaged only 0.5% in recent years, the growth in Chinese labour productivity has averaged 2.5-3% (Exhibit 4).



**Exhibit 4: Annual average contribution of growth in labour productivity to GDP growth (%)**

Sources: [Financial Times](#), [Haver Analytics](#)

Yet, if labour productivity in China is growing by 2.5-3% annually (as it is), but the Chinese workforce has started to shrink (as it has), the sum of the two is a far cry from the 6-7% annual GDP growth rates reported by the Chinese more recently. *Why?*

I can think of two possible explanations. Firstly, there are two measures of productivity – labour productivity and total factor productivity (TFP) with the latter measuring the efficiency of both labour and capital. It is indeed possible that TFP is growing faster than labour productivity, although the two rarely deviate *massively*.

(A special note to ARP+ subscribers: Within the next two weeks, we will publish a new research paper on TFP vis-à-vis labour productivity and why, in the age of digitisation, you should focus on TFP.)

Secondly, could the Chinese be “cheating”, i.e. deliberately overestimating GDP growth? This is a much harder one to assess. According to my source, the Chinese almost certainly cheat in the sense that they smooth the numbers from one year to the next. In reality, the Chinese economy is more volatile than you are led to believe when taking a first look at the numbers coming out of Beijing.

Having said that – and that is again according to my source – over the longer term, the stated growth rate of Chinese GDP is probably not too far off the real growth rate, i.e. cheating is unlikely to be the only reason behind this apparent obscurity. In other words, the real reason is probably a combination of the two.

One more point to make regarding Exhibit 4. The growth in labour productivity in EM countries ex. China is not impressive at all – as you can see, not much better than in DM countries. This implies that many EM countries (away from India and Africa) will deliver disappointingly low GDP growth in the years to come, unless they can somehow find a way to vastly improve labour productivity. Hence, if you invest in EM equity markets based on the notion that that’s where you can find economic growth, you could be in for a major disappointment.

This could also at least partially explain why EM equity markets have moved broadly sideways over the past ten years and why, over the past 30 years, they have not delivered any returns in excess of what you have obtained from investing (much more conservatively, I hasten to add) in the largest DM economy on planet Earth – the US equity market (Exhibit 5).



**Exhibit 5: MSCI EM index vs. S&P 500 (1988 = 100)**

Sources: [Financial Times](#), [Refinitiv](#)

Having said that, it wouldn’t be fair of me to paint all EM countries with the same brush. Some EM equity markets will most likely deliver decent returns, either because the local business community has figured out how to improve productivity dramatically (as in China) and/or because the working age population will continue to grow robustly (as in India and across Africa).

### Summing it all up

As a result of my findings so far, unless productivity growth can fully compensate for poor workforce growth (but more about that in part 2), I can only conclude that GDP growth will most likely stay low for many years to come.

As a consequence of that, you shouldn't be surprised if monetary authorities/governments plan to deploy increasingly controversial policy tools to get the economy firing on all cylinders again.

One such option is helicopter money. Send all households in the country a cheque in order to boost consumer spending. Alternatively, go for my favoured version of helicopter money. Introduce negative tax rates on earned income for the lowest income groups and finance it by reducing various transfer payment programmes. In other words, make it more attractive for the lowest income groups to work.

Another option would be to cut short term interest rates to -5% or even more. If interest rates are cut that much, people will most likely stack cash under their mattress, but that is not an option in a cashless society. In other words, such a policy programme must be preceded by the introduction of digital money. Sweden is the first country to go cashless (in January 2021), but expect others to follow suit relatively quickly thereafter, if it is a success in Sweden.

Even if monetary authorities are not prepared to go to such extremes, interest rates will most likely stay low for many years to come. There will obviously be both cyclical ups and downs, but the structural trend is flat to down. I wouldn't be at all surprised if bonds continue to be one of the best performing asset classes in the years to come.

As far as equities are concerned, one market stands out as offering by far the most attractive opportunities of all (developed) markets, and that is the US equity market. Firstly, the growth of the working age population in the US is far superior to anything else in the developed world.

Secondly, Americans are clearly ahead of the curve in terms of providing, and adopting, various productivity-enhancing new technologies. Hence, if logic prevails, productivity growth in the US will probably outperform productivity growth in other DM markets.

If both US workforce growth and US productivity growth does better than elsewhere, the US economy can only grow the fastest and, if that is the case, US equities will almost certainly outperform other DM equities.

More to come in part 2 ...

**Niels C. Jensen**

*1 October 2019*

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