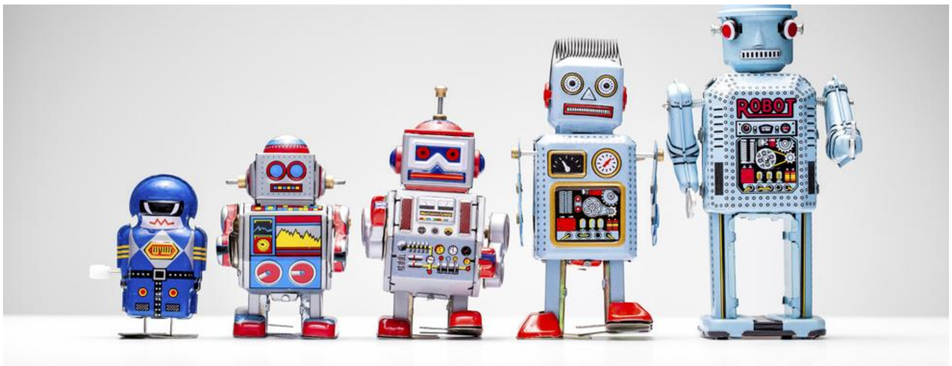
Absolute Return Partners

The Absolute Return Letter



December 2015
The Next Driver of Productivity

"There cannot be a crisis next week. My schedule is already full."

Henry A. Kissinger

We are blessed with regular feedback on the Absolute Return Letter, but last month we had far more than normal. Rarely have so many readers responded (which is very much appreciated), most of whom asked us to elaborate on various parts of the letter. Although we always make an effort to respond directly to our readers when asked a question, we invariably miss one or two. If that happened to you, we apologise.

The substantial interest in last month's topic has encouraged me to take an unusual step this month. Not only do I cover the same topic in the December letter as I did in November but, for the first time ever, it has been structured as a Q&A session. A first after twelve years is acceptable, I suppose. If you didn't read the November letter, I suggest you do so before going any further. You can find it here.

The many questions raised by our readers fell in to four broad categories and, with one or two tweaks, those four questions are as follows:

1. *What do you understand by 'crisis', and will Mean Variance Optimisation ('MVO') outperform in a crisis?*
2. *Have you learned anything from the Global Financial Crisis ('GFC') that can be used in the context of portfolio construction?*
3. *You say that European GDP will only grow approx. 0.5% per annum between now and 2050. What GDP growth rate do you expect in other regions?*
4. *What is likely to be the next major driver of productivity?*

As you go through my answers in the following, you will note that I have allocated considerably more space to answering the last question than I have to any of the other questions. That is no coincidence. Given the unattractive demographic outlook in most countries, the *only* way to generate respectable economic growth for many years to come is through productivity improvements. If you add to that the sad reality that the world is drowning in debt, and servicing that debt very much requires economic growth, I am probably not exaggerating when I say that productivity enhancement is not only desirable but absolutely critical in the years ahead. With those notes, let's begin with the first question.

Question 1: What do you understand by 'crisis', and will MVO outperform in a crisis?

'Crisis' is one of the most abused words in the English language, and what is often portrayed as a crisis is in truth no more than a hiccup. The GFC was one – in fact one of the more serious ones – and so was the Asian calamity in 1997-98, but much of what happened in between was not – at least not in financial terms.

I use a very simple approach to decide whether it is a regular sell-off or a true crisis. It goes as follows:

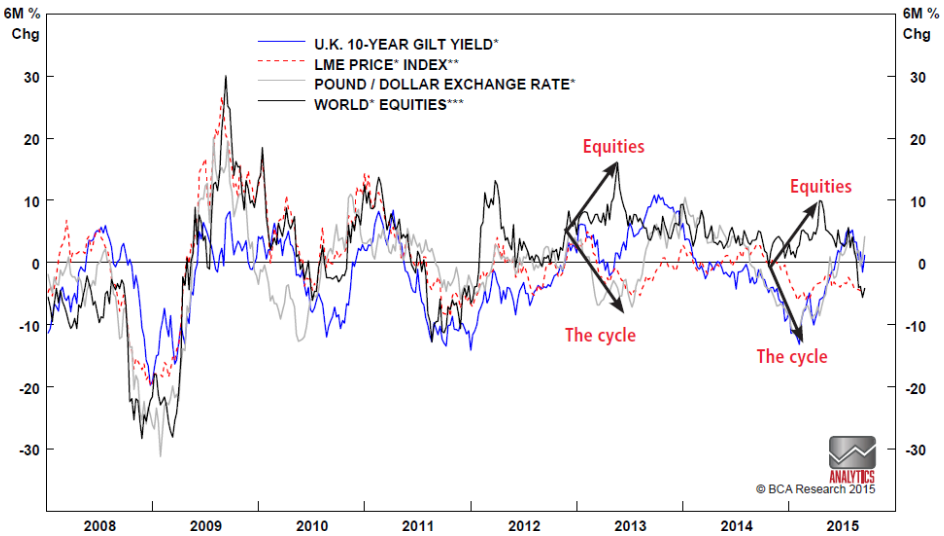
Rule no. 1: ***Correlations between risk assets always approach 1 in a crisis.***

Rule no. 2: ***If correlations are not fast approaching 1, it is not a crisis.***

It is almost too simple to be credible, but it rarely fails to work. Example: In early 2013, many risk assets sold off as global trade weakened, but equities didn't - in fact they moved in the opposite direction (see Chart 1). The same thing happened in early 2015. The low correlation between equities and other risk assets told me not to worry unduly.

On that basis, I don't think a crisis is imminent, but that wasn't the question. Assuming another crisis *is* looming, most investors using MVO will underperform as all three sets of input data (expected returns, standard deviations and correlations) will prove horribly incorrect. Simple as that.

Chart 1: When correlations don't go to one



Source: BCA Research

Question 2: Have you learned anything from the GFC that can be used in the context of portfolio construction?

If I don't restrict myself now, this could develop into a very long answer and may actually be something I return to in a future Absolute Return Letter. Here is the short version:

2008 and the subsequent downturn, now characterised by many as the GFC, was *not* the result of a black swan, as many continue to argue, but rather the result of a debt overhang. Because bankers applied a very conformist approach to monetary policy by focusing on very conventional measures, nobody saw the GFC coming; not because some black swan suddenly emerged.

If one of the key lessons from 2008 is that massive crises can emerge from growth-less credit booms, the chances are that interest rates will stay relatively low for many years to come. This view is further supported as a consequence of BIS'[1] take on things. Because BIS has demonstrated how important the debt service burden was to the unfolding of the GFC, and because BIS is the central bank of central banks, one shouldn't expect interest rates to suddenly 'normalise'.

As a consequence, fixed income investors in need of income will increasingly look at alternative sources of income, and equity investors will increasingly realise that what worked well pre 2008 won't necessarily work that well for many years to come.

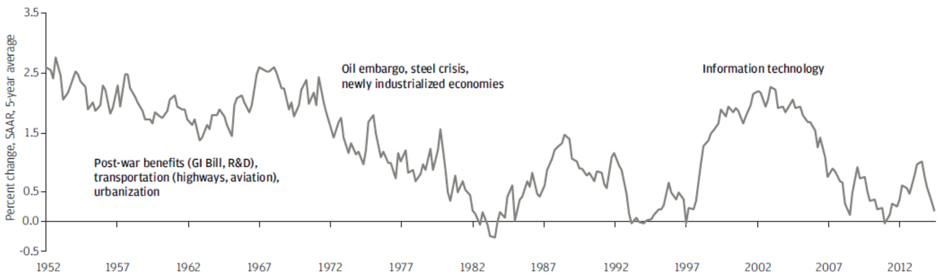
Question 3: You say that European GDP will only grow approx. 0.5% per annum between now and 2050. What GDP growth rate do you expect in other regions?

We haven't looked into every single region around the world; however, we expect U.S. GDP *on average* to grow at 1.0-1.5% per annum, U.K. GDP at 0.5-1.0% and Eurozone GDP at only 0.0-0.5% for many years to come. I deliberately say 'for many years to come' rather than 'until 2050' because demographic headwinds will come to an end more quickly in the U.S. than they will here in Europe. Expect a falling workforce to be a significant headwind in most of Europe until at least 2050 and 'only' until the mid-2020s in the U.S.

Japan is facing the most significant drop in the workforce of any DM country. Between now and 2050, it will drop nearly 1% per annum, making it very difficult for the Japanese to generate any economic growth at all between now and 2050 and possibly for much longer.

This all assumes that immigration policy in the various countries doesn't change meaningfully, and that productivity will continue to grow at approx. 0.5-1.0% per annum, as it has done more recently (give or take). As mentioned last month, OECD countries have only benefitted from significantly higher productivity growth twice since World War II – the first one being in the 1950s and 1960s when the highway/motorway system was first established, and the second one being around the Millennium when the dot.com boom allowed many of us to change the way we work (see Chart 2).

Chart 2: U.S. utilization-adjusted total factor productivity



Source: J.P. Morgan Asset Management, Federal Reserve Bank of San Francisco

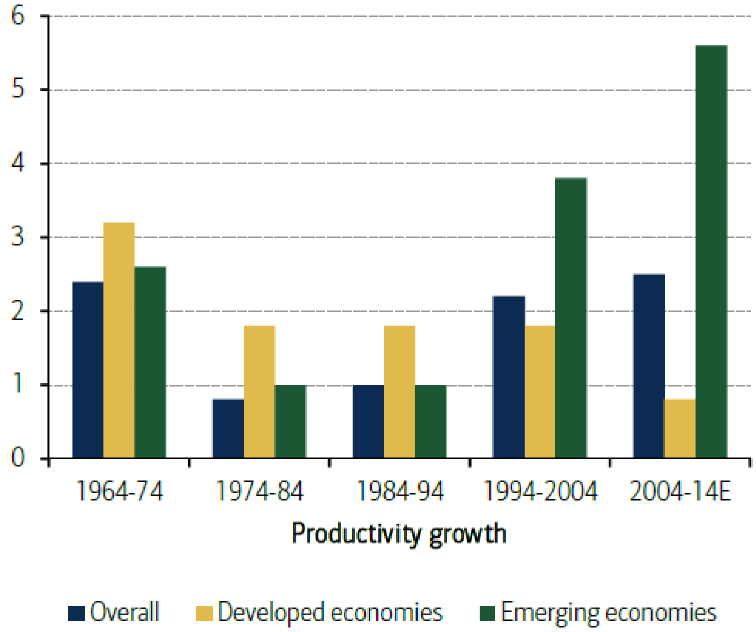
Either of those assumptions could obviously be wrong, in which case our GDP projections would be revised – most likely upwards, as I would expect productivity growth, if it does surprise, to surprise on the upside. The pressure on the political leadership to create economic growth is going to increase in the years to come. *"Do something"*, the mob will demand, reasoning in their usual eloquent way. And then they will scream and yell when our political leaders suggest that we allow in more refugees.

[1] *Bank for International Settlements.*

Question 4: What is likely to be the next major driver of productivity?

As is obvious when looking at Chart 2, productivity has been under tremendous pressure more recently but, as you can see from Chart 3, it is only a DM phenomenon. Productivity in emerging markets has actually grown quite spectacularly.

Chart 3: Annual productivity growth (CAGR, %)



Source: BofAML, McKinsey

There are many reasons why that is (e.g. urbanisation), but one should never underestimate the average age of the workforce as a factor. It is therefore fair to expect further pressure on productivity in countries where the workforce is ageing the most, and that would include most OECD countries.

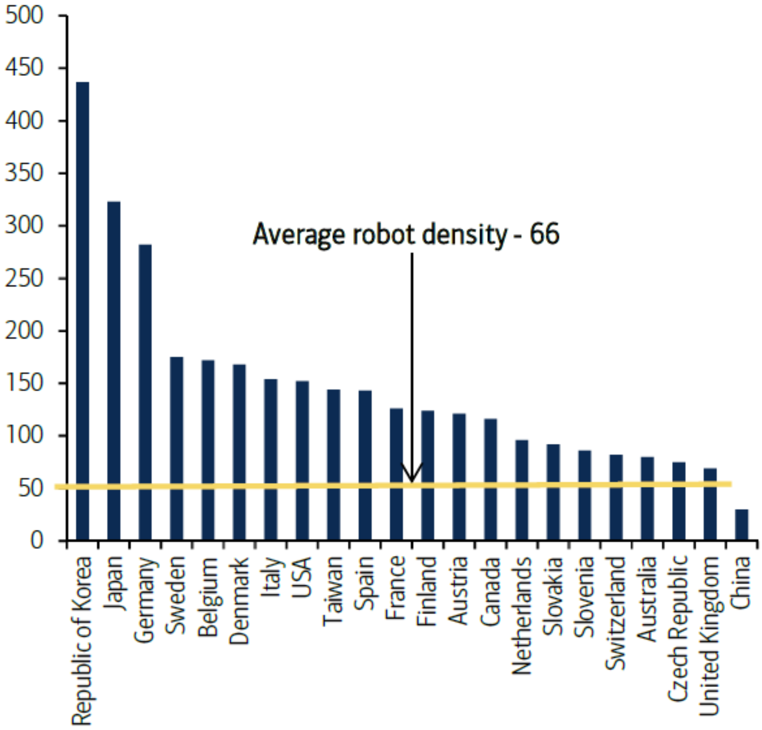
Take another look at Chart 2. As you can see, productivity doesn't rise meaningfully that often, but it does happen every now and then. It is therefore fair to ask the question – is there anything in the pipeline that could cause productivity to grow to new heights and save developed economies from looking into an extended period of abysmal economic growth?

Bank of America (BofAML) has recently released a monster of a research report (a summary of which you can find here) which argues that robots will take over nearly 50% of all manufacturing jobs and shave $9 trillion off labour costs within a decade. I don't know enough about robots – and the desire in industry to replace human beings – to argue for or against the suggested timing of all of this, but the trend is clear, and the driver is the first mover advantage.

Take the car manufacturing industry. A spot welder is paid on average $25 per hour. A robot can do the same job for $8 an hour (all in). Those countries that don't embrace the new technology will simply be left behind, such are the advantages (see Chart 4).

One further note on automation. Developed economies have a massive advantage over China in this respect. China (because of the sheer number of people) cannot allow robots to replace hundreds of millions of workers. There are simply too many mouths to feed every day. The old world has exactly the opposite problem. A shrinking workforce will force robots to be installed if we want to keep industry alive, partly because we won't have enough people to fill the manufacturing floors, and partly because those who are left will be too expensive. The best line of defence against Chinese competition is therefore likely to be more automation.

Chart 4: Number of multi-purpose industrial robots per 10,000 employees (2014)



Source: BofAML, IFR 2014

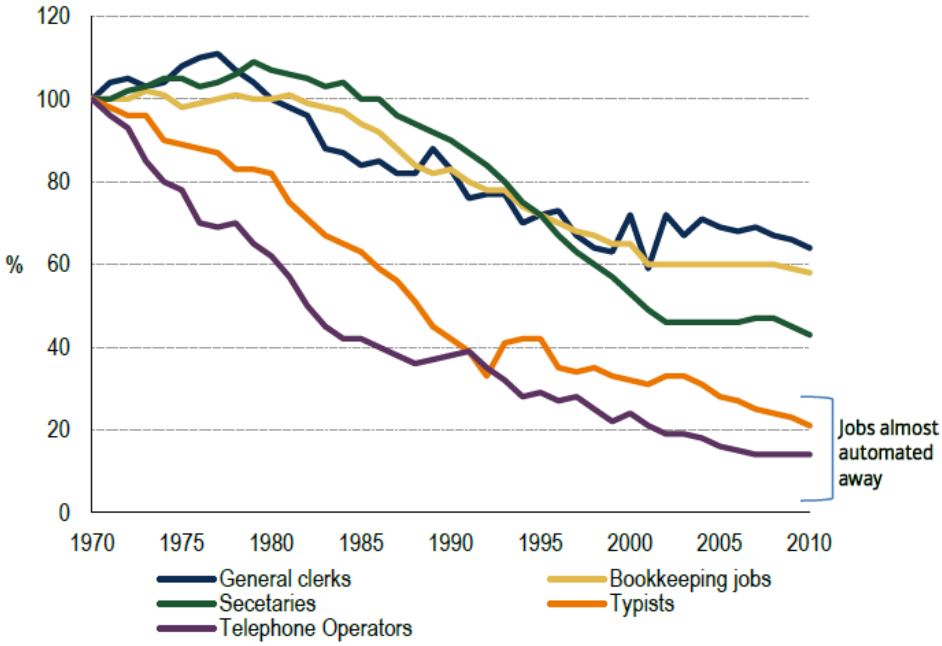
Talking about labour costs, the significant gap in hourly earnings between DM and EM countries is likely to foster two very different approaches to automation. Whereas robots are almost always the most cost effective solution in DM countries, labour costs in most EM countries are still sufficiently low to warrant a different approach (chart not shown here, but Germany tops the chart with hourly manufacturing wages of approx. $50 per hour, whereas most EM countries do not exceed $5 per hour).

My brother-in-law worked for a cable producer in Germany for many years. I once asked him: “Why don’t you move your production to China?” His answer confirmed what I just said. “Our labour costs as a % of total costs are only 7-8% in Germany. We cannot produce our cables meaningfully cheaper in China, and they are not the same quality anyway.” Enough said.

A likely side effect of increased automation is even lower inflation, at least in DM countries. Not only do manufacturers save considerable amounts of money by replacing human beings with robots as already mentioned, but robots are also getting cheaper to install. BofAML reckons in its research paper that whilst robots have on average become 27% cheaper over the last ten years, they will fall a further 20%+ over the next ten years. All this has the potential to boost productivity whilst keeping inflation low, and could be the saving grace for otherwise doomed DM economies.

One final comment on productivity. The consensus appears to be that this is largely a manufacturing issue and that relatively few jobs have been lost elsewhere. Nothing could be further from the truth. Take the financial industry, where many transactional jobs are lost every day (see Chart 5); or take education - as Ambrose Evans-Pritchard of the Daily Telegraph points out: *“A single professor can teach a course to 150,000 students through digital technology.”*

Chart 5: Decline in transactional jobs, 1970-2010



Source: BofAML, McKinsey Global Institute, U.S. Bureau of Labour Statistics

Conclusion

That was a long and rather complex answer to a very simple question, so let's stop there. Other questions were raised by our readers, but I have probably covered the ones that are of most general interest.

Just one final observation. In early 2015 I added '*Capital's share of national income to mean-revert (i.e. drop)*' to our growing list of structural sub-trends[2]. I am having second thoughts about that one. Let me back up for a second. National income ultimately ends up in the hands of either labour or capital. Historically, the two have shared national income in a very predictable way. Every time the ratio has deviated more than a few percentage points, mean reversion has kicked in. *Every single time*.

The long-term average split between capital and labour varies a bit from country to country. For example, in the U.S., labour has taken about 65% historically; in the U.K., labour's share has been in the low 60s, which is also quite close to the global DM average. Now, in recent years, labour's share of national income has trended down in almost all DM countries (see Chart 6), and I added (expected) mean reversion to our list of structural trends.

Other things being equal, if capital's share of national income were to fall, as we first predicted in March 2015, corporate profitability would suffer, and so would equity returns. Adding this structural trend was based on two projections. I projected that mean reversion would kick in again, as it has always done, and I expected a shrinking workforce to amplify that trend.

If BofAML's projections (which are well researched) are correct, my prediction could prove horribly wrong, at least in the short to medium term. Labour's share of national income may continue to fall for several years to come, as the automation of industry strengthens.

[2] *In last month's Absolute Return Letter I explained how we distinguish between structural mega-trends and structural sub-trends at Absolute Return Partners. As I don't intend to repeat myself, you would have to read the November letter again, in case you don't remember.*

Chart 6: Labour share of national income in DM countries

Source: The Daily Telegraph a.o.

As a consequence, I have decided to remove the mean reversion trend from our list of structural sub-trends. In its place goes a new sub-trend that I call '*Automation of industry to intensify*'. I openly admit that it is a bit of a U-turn, but the smart people at BofAML have convinced me. The ugly demographic outlook will force our political leadership to think along those lines if they want any meaningful economic growth (and they do, given all the debt most governments are saddled with), and employers in DM countries will have to adapt to robots if they want any respectable growth in earnings.

Niels C. Jensen
3 December 2015

Important Notice

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Absolute Return Letter contributors:

Niels C. Jensen	nj@arpinvestments.com	Tel +44 20 8939 2901
Gerard Ifill-Williams	giw@arpinvestments.com	Tel +44 20 8939 2902
Nick Rees	nr@arpinvestments.com	Tel +44 20 8939 2903
Tricia Ward	tw@arpinvestments.com	Tel +44 20 8939 2906
Alison Major Lépine	aml@arpinvestments.com	Tel: +44 20 8939 2910