

## Where will the new jobs come from?

It is fashionable to be gloomy amongst leading commentators and economists. One of the things many of them are now worrying about is what new jobs will emerge to provide alternative employment, as the robot and artificial intelligence revolution gets into full swing? My message is they should relax and study a little history. Past tidal waves of innovation have destroyed many jobs, only to create many others. Most people tending horses and running horse drawn services lost their jobs, but it didn't end the need for transport workers. Many of the jobs in factories moving parts to the line, assembling parts and testing the products have been replaced by robots already, but replacement activities have mushroomed as the society gets richer from automation.

Sometimes a new method does not extinguish all the old competition. The advent of the Channel tunnel did not end the ferry companies who fought back well. Whilst robots can make cars, the rich often want a different product that is much more hand made. Robots could cook and serve a meal in a fast food outlet, but that will not end the demand for silver service restaurants.

Today some worry that we are near the time when professional drivers are replaced by automatic vehicles. This is a strange worry for now, as the opposite is happening. There is more demand for commercial drivers, as internet retailing surges in importance. This requires many more delivery vans and drivers to take goods to people's homes that they would have taken there for themselves on the old model. If we do get to automatic vehicles in the ascendency then there will be all sorts of jobs controlling, maintaining and instructing those vehicles, and doubtless plenty of jobs in regulating and policing them.

One of the features of a higher income economy that is growing is the shift in consumption towards more items requiring higher levels of service. When people have enough goods for their home and a decent wardrobe of clothes, they have money to spend on events, leisure, eating out. They might want to buy an expensive coffee in a shop instead of making an instant at home. They may want a Sunday lunch for the family in a restaurant rather than round the kitchen table. They want better haircuts or beauty treatments. All these things have a higher employment content than buying more goods made in robot controlled factories.

I see technology as generally positive. The internet is extending our options, keeping prices down and changing the way business works. It need not herald an unemployment problem. The way you get unemployment is from governments and Central Banks that destroy credit, push up rates too high and impose damaging taxes, as we saw in 2008-10 in the west. Or you can get it like Venezuela from a government that does too much and taxes too much, killing off enterprise and private sector investment and innovation.