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Taxation

Taxing artificial intelligence

Par Xavier Oberson le 2 December 2024

The development of artificial intelligence (AI) has become an issue of global importance. AI is now used not only in industry, but also in the service and entertainment sectors. Robots can help lawyers, doctors, bankers, brokers, nurses, farmers, social workers or even artists. The increased use of AI is having a positive effect, as robots can now replace difficult, repetitive or even dangerous activities (such as cleaning up polluted sites) and boost productivity. However, its impact on the future of human work is a growing concern. The recent emergence of conversational and collaborative AI models has also heightened fears of a major impact on jobs, which, according to a pessimistic view, could be drastically reduced in favour of automation and even disappear in the long term.

Although the impact of AI on the future is highly controversial, it seems at least likely to us that many human jobs will disappear. Moreover, it is by no means certain that enough new jobs will be created to compensate for those that would have disappeared, not to mention the difficulties of adaptation. The loss of jobs and the increase in inequalities between labour and capital will have massive financial consequences for governments. Taxes and social security contributions on salaries are generally the most important source of revenue for governments. It is therefore necessary to explore solutions to the impact of AI on the economy, should the pessimistic scenario become reality. In our view, a tax on AI is an interesting solution worth considering (cf. Oberson, Taxing Artificial Intelligence).

The risks posed by automation to the future of human work are beginning to be taken seriously. The idea of taxing AI is now being debated around the world. In a report on 16 February 2017, the European Parliament questioned the possibility of taxing ‘intelligent robots’, but ultimately decided against it. The following day, Bill Gates, in an interview with the TV channel Quartz, also confirmed his support for taxing robots in order to remedy the potential disappearance of human workers. For our part, from the beginning of 2016, we argued in favour of taxing robots, leading subsequently to a proposal to tax AI as a solution for the future.

The idea of taxing AI raises complex issues. To be justified, such a tax must be based on an operational definition of the taxpayer and the tax base, in line with the main principles of tax law, such as equal treatment and tax capacity. In general, although there is no unanimously accepted definition, AI is a broad term that includes all types of algorithms or software designed to create intelligent machines. Robots, on the other hand, are generally considered to be the implementation of AI in machines. In other words, we tend to think of robots as a form of ‘embodied’ AI. While the distinction between AI and robots can be used to visualise these

concepts, in our view we should focus on the taxation of AI, defined in terms of its purpose and effect on the economy. What should be relevant is the autonomy of AI, defined as the ability to process, plan and act on its own. Whether the AI is in a computer, network, software or industrial robot is irrelevant from a tax perspective.

Until now, AI and robots, even if they have sufficient autonomy, have not been considered as legal entities, subject to rights and obligations. As such, they do not have a specific capacity to pay. This is why most current plans to tax AI or robots focus on taxing their use by businesses. This approach may prove insufficient in the long term. In 2017, we argued for the possibility of 'intelligent robots' being recognised as taxable entities with a capacity to pay tax. Today, the focus is on AI systems, according to a 'formally neutral' definition to be specified by the legislator. However, history has already witnessed a similar legal evolution. More than a century ago, the concept of separate legal personality was developed. At the time, the aim was to encourage entrepreneurship and give people the opportunity to create a limited liability entity. As soon as a company was recognised as a legal entity, the legislator then introduced a tax on its profits, since companies were recognised as having their own capacity to pay tax.

Consequently, the taxation of AI could follow a two-stage approach. Firstly, companies' use of AI replacing humans would be taxed, in the absence of any contributory capacity attributable to the AI systems as such. From this perspective, the taxpayer would remain the company using the AI. Secondly, to the extent that tax legislation recognises taxable AI units, or intelligent robots, as tax subjects, the taxpayer would then become the AI unit as such.

As a first step, an interesting solution would be to levy an income (profit) tax on the hypothetical salary that companies *using* AI would have received for work or an equivalent activity carried out by humans. This hypothetical income could also be subject to social security contributions. A simpler alternative would be to introduce a flat-rate tax, corresponding to an approximation of the value created by the use of robots. The idea of introducing a tax on imputed income is not new. Switzerland has long levied a rental value tax on property owners. In this context, another more schematic approach focuses on the idea of introducing an 'automation tax' that would apply to the production factors of a company using AI instead of human workers.

Robot taxes could also be introduced to compensate (internalise) the negative externalities associated with job losses caused by automation. In our view, in the short term, such taxation could be justified to ease the transition to a new economy and allow the workers concerned to adapt as much as possible.

Another approach is to levy a special tax on the use of certain automated machines, usually in the retail or industrial sectors. The ownership of specific installations using AI or robots can also be subject to an object tax, similar to a tax on cars, planes or dogs. For example, taxes on drones and autonomous cars already exist in California in the United States.

In a second phase, it is quite possible that certain AI systems or intelligent robots could be recognised as having *their own tax capacity*, which could then be subject to tax. This would lead to a genuine tax revolution, with the emergence of a new taxpayer, an AI unit itself. In this respect, we have argued that AI, in order to be subsequently recognised as an autonomous taxable entity, should meet the following four essential conditions : (i) autonomy ; (ii) separate patrimony ; (iii) identification ; and (iv) human control.

Once AI units are recognised as having a capacity to pay tax, consideration could be given to taxing the income they receive. This taxation could also be based, rather than on income in the traditional sense of the term, on the financial flows transferred through the intermediation of AI. In this logic, taxable AI units could themselves be subject to VAT. The applicable technology could be adapted to include automatic mechanisms for collecting the tax on each transaction and remitting it to the competent authority.

The issues raised by the future taxation of AI go far beyond national borders. They will need to be examined on a global scale, taking into account recent developments in international tax law within the OECD, the United Nations and the EU. The debate on the taxation of AI has only just begun.

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