

Artificial Intelligence and Robots: Taxing or Incentivising?

Intelligenza artificiale e robot: tassarli o incentivarli?

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Abstract

The paper aims to investigate if and how the tax legislator can intervene in the implementation phase of artificial intelligence and robots so that their use in the production of goods and services generates a social utility for the community. Various questions arise from this. First and foremost it is necessary to understand whether to encourage or tax the use of robots/AI.

Keywords: taxation, robot tax, automation tax, tax incentive. ability to pay principle

Abstract

Scopo del lavoro è di verificare se e come il legislatore fiscale possa intervenire nella fase di implementazione dell'intelligenza artificiale e dei robot affinché il loro utilizzo nella produzione di beni e servizi generi un'utilità sociale per la collettività. Le questioni che si pongono sono diverse. Pare però preliminare capire se incentivare o tassare l'uso di robot/AI.

Parole chiave: tassazione, tassa sui robot, tassa sull'automazione, incentivo fiscale, principio di capacità contributiva

TABLE OF CONTENTS: **1.** Introduction. - **2.** Overview of the academic literature on taxing AI and Robots. - **3.** Assessments from an economic and legal point of view. - **4.** Concluding remarks.

1. The development of robotics and artificial intelligence is profoundly changing production as well as service delivery models (with automated and interconnected productions). This calls for “rethinking” work organisation “methodologies” in both the private sector and public administration.

The ongoing technological revolution affects several aspects of the tax system. In this context, it seems reasonable to undertake an inquiry into the tax legislator’s role. Recent economic and social changes beg the crucial question of whether the time has come to consider the taxation of new forms of wealth produced by artificial intelligence and robots.

The ability to support an innovative process is widely regarded as a decisive factor in keeping up with the most advanced economies. That is precisely the reason many countries, including Italy, have chosen to encourage investments in robotics and in

the development of interconnected production systems using AI via the provision of favourable tax measures.

Accordingly, taxing robots or the individuals who benefit from them would constitute a radical change of direction in tax policies currently in force in this field. On one hand, this idea is underpinned by the requirement to compensate for what would seem to be the most significant of the negative externalities resulting from the use of robots, namely the so-called "technological unemployment", on the other, by the need to implement redistributive policies. It is believed that the robotic process automation with implemented artificial intelligence will lead to massive job losses; that the operating mechanisms of the market would not be able to cope with the consequent reduction in general welfare resulting from the ongoing revolution; and that only the state may address and rectify this market failure, by implementing adequate taxation policy instruments. Moreover, recourse to such instruments would be required to address the decline in tax revenues due to the use of AI/robots (in this paper, this expression refers to those technologies capable of performing, even without human intervention, routine tasks or more complex activities previously carried out only by humans), and more specifically, to cope with a reduction in tax revenues collected by taxing regular employment income, but also to deal with a reduction in tax revenues resulting from VAT collection, in view of the fact that robots and various forms of AI, unlike humans, do not buy cars, clothes, food, etc. (CHAND V. - KOSTIC S. - REIS A., 2020, at 714).

In essence, the idea of taxing the use of robots that replace the human workforce or even taxing the robots themselves has at its origin the need for a state intervention. This intervention would be aimed, on one hand, at addressing the situation of growing income inequality, and on the other, at compensating for the high technological unemployment by reducing the speed of replacement of individuals with AI/robots.

2. Starting from this assumption, various theories have been elaborated. Some of them are more traditional, like proposing a tax that would be levied on ownership and could be based on a flat rate or vary according to the type of robot ("object tax"). Others are more innovative, such as the introduction of a direct tax on robots (see OBERSON X., 2019, at 132), which suggests considering in the near future robots as taxpayers *per se* and introducing a "robot Income or Revenue Tax". Finally, some authors enquire about different forms of robot use taxation and propose several designs. One option is to allocate an "imputed salary" to the use of robots that would be equivalent to the salary that an individual performing the same work would have received. Another is to provide for "automated" companies a less favourable treatment than the normal taxation regime. In this perspective, the following have been proposed, for example: a relevant increase in corporate income tax rates for automatised businesses (ABBOTT R. - BOGENSCHNEIDER B., 2018, at 172-173) and the reduction of depreciation allowances for corporation tax purposes, as well as a partial denial of input VAT deductions for the acquisition of robots, depending on the degree of the firm's automation (ABBOTT R. - BOGESCHNEIDER B., 2018, at 169-170). Yet others propose

the introduction of new forms of taxation. This is the case of the "Robot tax" based on the created value to profits obtained by businesses considering a rise in their profits due to the implementation of new technologies (LEXER M.G. - SCARCELLA L., 2019, at 66-67) or the case of the "automation tax" of the "automation tax" introduced through changes to the existing system of depreciation/ capital allowances depending on the effect of the capital investment on employment (OOI V. - GOH G., 2022, at 291-292).

Notwithstanding the highlighted structural differences, the proposed options, except for the direct tax on robots, employ traditional legal categories to tax a new and specific economic phenomenon. On closer inspection, many of these continue to be based on the notion of robots as tools in the hands of other actors, they do not consider that the need to tax robots originates from their unprecedented level of autonomy in the decision-making processes.

3. Having said this, it is necessary to carry out some assessments from an economic and, above all, legal point of view. The first issue to be addressed concerns the compatibility of new forms of taxation of 4.0 enterprises with the principles underlying modern tax systems or with their constitutional justification, starting with the ability to pay principle.

From a purely economic point of view, the taxation of AI/robots could be justified by the need to compensate for negative externalities generated by entrepreneurial choices inherent in the use of AI and robots and in the awareness of the need for state intervention in the economy. All the proposals discussed above are based on the idea that employing AI/robots can cause, at least during the transition period, widespread unemployment and they aim to reduce the laying off and/or replacement of employees by AI/robots. However, it should be noted that there is no consensus regarding the implications of automation and, in particular, how many jobs would be replaced in the future nor how many would be created as a result of automation.

It should be remembered that, while some believe that the implementation of AI and robotics in production processes will result in a significant loss of employment (which, in turn, will lead to a consequent mass layoff/unemployment [FREY C.B. - OSBORNE M.A., 2013, at 44]), a report by Oxford Economics highlights that *«it would be simplistic to characterise robotization as only a destroyer of jobs»* (OXFORD ECONOMICS, 2019, at 35). In particular, the report, on one hand, indicates that *«jobs are both created and destroyed through the increased use of automation and industrial robots»*, and on the other, states that *«a faster adoption of robots has a positive impact on both short - and medium - term growth. For example, boosting robot installations to 30% above the baseline forecast by 2030 would lead to an estimated 5.3% boost in global GDP that year»* (OXFORD ECONOMICS, 2019, at 37 and 6. See also AUTOR D.H., 2015, at 26-28). In the view of Chand, Kostic and Reis *«The one-off statistic might demonstrate that, after a technological revolution, society needs an 'adjustment' period for its own reorganization and then it starts benefiting from the new technologies. In other words, employment levels increase after the*

'adjustment' period. Arguably, this conclusion may also indicate that employment levels could also increase during or after Industry 4.0 following an initial 'adjustment' period" (CHAND V. - KOSTIC S. - REIS A., 2020, at 717).

Obviously, such theories have evident repercussions from a juridical point of view. If it was adequately and sufficiently demonstrated that the use of robots and new AI technologies leads to a social detriment (*i.e.* if it was reasonable to assume that they entail a "stable" loss, not a temporary loss, of jobs and that this unemployment has a causal link with the sole use of robots), then it could be advisable to introduce a sort of ablative tax levy and disregard the ability to pay principle. These are levies whose legal standing stems from the damage that the use of robots produces or that it could produce. In essence, these would be levies with a "compensatory" purpose (as claimed by some about environmental taxes). This hypothesis, however, should be disregarded both because of the uncertainty that exists regarding the consequences of the industrial and technological revolution on society (there is no irrefutable evidence of the existence of an immediate causal link between the use of robots and the loss of employment), and because it seems difficult not to recognise a co-responsibility of the state. The latter could be held liable for failure to introduce sufficient training and re-training worker incentives and appropriate policies (fiscal or otherwise) to avoid such negative externalities.

The introduction of a levy/tax on robots can only be justified on the basis of the ability to pay.

According to doctrine, "revenue interest" alone cannot justify taxation. It must be considered incompatible with the ability to pay principle to tax a subject in the absence of specific parameters designed to represent an effective ability to pay, to pursue an interest allegedly to be considered as superior (since it belongs to the state).

It is well known that the above-mentioned principle requires that only facts suitable for demonstrating a certain economic strength should be subject to taxation. According to the Italian Constitutional Court, the ability to pay must, in principle, be derived from any index of wealth, according to the assessments of the legislator, except for the control of constitutionality in terms of arbitrariness and irrationality (Judgments no. 178 of 7 July 1986; no. 400 of 19 November 1987; no. 143 of 4 May 1995; no. 362 of 26 July 2000; no 240 of 15 November 2017; no 12332 of 9 May 2019).

Based on that parameter, the lawful taxation of owners or subjects who use robots seems to be subordinated to whether robots/AI – unlike other "means of production" – can be considered as goods that represent an economic value in themselves, capable of justifying an "additional" tax which falls on the subject who employs or handles them. A similar conclusion could perhaps apply to robots or so-called "smart" machines that make autonomous «*decisions and implement them in the outside world, independently of external control or influence*» (European Parliament resolution of 16 February 2017 with recommendations to the Commission on Civil Law Rules on Robotics [2015/2103(INL)], recital AA). We refer to those robots for which the European Parliament had suggested the idea (later rejected) of «*applying electronic*

personality», on the assumption that «*the more autonomous robots are, the less they can be considered to be simple tools in the hands of other actors*» (European Parliament resolution of 16 February 2017, recital AB and point 59, f).

Finally, the assessments concerning the compatibility with the ability to pay principle relating to direct taxation of robots appear more complex since, in this case, the profile of the robot's tax subjectivity is also an issue.

In this regard, it should first of all be clarified that, in my opinion, the choice of the EU not to recognise, at least for the time being, legal subjectivity under civil law to robots, does not prevent them from being qualified as taxable persons, such as for income tax. Also, 'entities' not qualified as legal persons under different legal frameworks could be taxable persons, but in so far as these 'entities' enjoy asset autonomy. Indeed, tax subjectivity is conditional upon the asset autonomy of the qualifying entity. This is because only asset autonomy is a suitable indicator of the ability to fulfil future tax debts (known as financial capacity).

Having said this, in practice, however, it seems impossible that robots can have an autonomous financial capacity as long as they do not have civil law recognition.

In any case, apart from the mentioned issues, robot taxation would remain difficult to reconcile also with a further element of the ability to pay principle. The latter is also the criterion based on which public expenditures are allocated to taxpayers. Accordingly, it postulates that the person paying the tax enjoys the "benefits" of belonging to the 'community'.

Therefore, since it does not seem reasonable to equate them to an individual, I believe that robots should not be deemed independent taxable persons (similar to human beings). This line of reasoning would also hold in the event civil law recognised the independent imputability of robots as if they were people (known as electronic personality). Acknowledgment by civil law would not alone be sufficient justification for taxation.

Different conclusions could be reached in the event that, instead, civil law attributed to robots a legal personality similar to legal entities such as corporations. The taxation of legal persons - as is known - is independent of their participation as members of the community. In this case, if we assume that the civil law choice to recognise robots as legal entities arises from the intent to make them liable for damages they could cause, then they should have patrimonial autonomy and the accessibility of the funds generated by the robots by the respective owner or user should be restricted. Such liability should assume a certain economic substance. The conditions would therefore exist to qualify robots as liable to a tax functionally equivalent to a corporate income tax (See also English, 2019, at 264-267).

4. However, the fact that taxation of robots can be justified based on the ability to pay principle does not mean that an implementation of robot taxation would also be "appropriate". Indeed, since this is a clear political choice, several factors must be taken into account, including those of an international and economic dimension.

In this respect, it is widely acknowledged that the introduction of specific forms of

levies on AI or robots by individual states would negatively affect their own competitiveness and, most probably, would induce many companies to relocate to other jurisdictions. As has been pointed out "Globalization has reduced the fiscal space to many governments and has made the tax systems less progressive" (TANZI V., 2015, at 509).

The difficulties involved in identifying the scope of any type of taxation in the first place and the possibly distortive effects of such taxation should, then, not be overlooked.

Furthermore, the findings of some studies which conclude that "high tax rates on all incomes and especially on incomes from capital sources have a negative impact on growth and employment" (TANZI V., 2015, at 499), also argue against the introduction of new forms of taxation. If this is true, then an increase in taxation *tout court* on automated enterprises may not have a positive effect on employment rate.

Taking all these considerations into account, it seems inappropriate to interpret the choice of the role of states in terms of a stark contrast between incentivising or taxing automation, namely between financing businesses that invest in new technologies or taxing them, to replace lower revenues from labour income and have "new" sources of revenues to support employment and/or redistribute wealth.

On closer inspection, the two objectives - promoting economic development and supporting employment - are only apparently opposed.

Automation is crucial to ensure the competitiveness of the entire "country system" and, therefore, to sustain employment. After all, a condition of widespread unemployment could negatively affect the target markets of businesses, even those that are automated.

These are the reasons on the basis of which we should consider that, as things stand, the issue of the role of the state should first and foremost be posed in terms of an appropriate allocation of resources.

From this perspective, it seems essential for the state to adopt a proactive fiscal policy, aimed not only at encouraging investments in AI, but also at supporting employment through incentives to provide the new skills (that "automated" society will need) and through the reduction of the tax wedge. The latter reduction, on one hand, could be effective in supporting labour demand and, on the other, would also be an incentive for workers.

In conclusion, the analysis carried out so far leads us to agree with the EU's choice to reject a proposal to implement a tax on robots. In contrast, the decision of the Italian legislator to only extend until 2022 the incentive of tax credit (introduced in 2020), aimed at supporting investments by companies to train employees on issues relevant to the technological and digital transformation 4.0, would be open to criticism, all the more when it is considered that the resources allocated to incentives for automation have increased.

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