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Tax incentives towards the generation of technology in Brazil and the Reform of the Good Law: a window is being closed

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The additional deduction (super deduction) amounting to 60% of the incurred expenses with technological research and development of technological innovation to be computed upon the determination of the legal entity's income tax was introduced in Brazil through Law No. 11.196, of November 21, 2005, also known as the Good Law. This sort of instrument is far from being a Brazilian exclusivity. The

Brazilian initiative follows a wide international experience: since the 1980s more than 30 countries (among which 80% of the G20 countries, all the BRICS, and countries of the most liberal tradition, such as the USA, Australia, Singapore, Switzerland, and the United Kingdom) have been

encouraging research and development activities through tax credits or super deductions, which are *input* incentives, that is, benefits linked to resources employed to generate innovation; and to tax the profits originated from the exploitation of industrial property with reduced levels of tax burden, which are *output* incentives, more accurately, benefits linked to the result of the developed innovation.

The introduction of tax mechanisms to boost innovation can be tracked down in a vast economic literature which identifies market failures in the capacity of generating technology by economic agents in a free market. Studies carried out by Joseph Stiglitz in the 1980s demonstrated that the *spillover* effects prevent the innovation-developing economic agent from internalizing all gains associated to the developed technology, the benefits of which are enjoyed by the general set of the economy and society, and, thus, discourage the optimal allocation of private resources on developing innovations. Analyses carried out by Kenneth Arrow in the 1960s proved that the financing agents do not detain, in market conditions, the

knowledge about the nature, the risk and market potential of the technology-generating projects, at the same level as that detained by the developing agent himself, which explains why the credit market for innovation is practically non-existent. The same authors still determined that the legal framework for intellectual property, whilst instituting the monopoly scheme concerning the exploration of new technologies, either stimulates the investments on generating technology, on the one side, or increments the transaction costs related to the exploitation of innovation, on the other side, thus blocking the diffusion of innovation in the economy and implying the underutilization of the new technologies in the market.

Such market failures make it imperative for the State to intervene in support of the

private agents in the execution of their inventive efforts. Public policies fomenting the innovation process in the economy provide private entities with financing, costing, and profitability conditions within the generation of technology that combat market failures and lead the economy up to optimal levels of resource allocation in the inventive process. In this context, the tax incentives stand out, through generality, predictability, and procedural simplicity, as the most adequate instrument for implementing a transversal policy to foment inventiveness as compared to direct subsidies that, bearing a bureaucratic character and high moral risk, have a

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directed scope and should be limited to specific agents and sectors. Amid this state of affairs, the international practice has moved on at a surprising velocity in the last decade, as the structuration of the tax incentives for innovation is concerned. The international dynamics, which has been adding up some purpose of international competition for R&D investments up to the corrective function of market failures, has been guided by highly-evolved incentive schemes for innovation *inputs*, already in their third and fourth generations, and by the consolidation of innovation *output* incentives, a new trend in this area.

Brazil, however, stands out for its total alienation towards the evolution of these instruments in the international scenario. The Brazilian regime of tax incentives to innovation bears its main instrument in the Good Law, represented by its *input* incentive in the shape of a super deduction linked to the expenses with R&D. This is a scheme that detains already widely recognized deficiencies, and, dating back to 2005, is strongly out of phase, long requiring a reform that may provide it with efficiency and competitiveness. That is an old diagnosis already: the Brazilian scheme has a restricted reach to the few big companies; does not adequately contemplate the need to reduce the recruitment cost of high-skilled researchers; is hostile to operations structured within an open innovation model; does not have applicability for companies and projects still in the investment phase, therefore, not profitable yet; does not contemplate micro, small-sized and young innovative companies (*startups*); and is based on a legal framework that generates low levels of legal certainty for the private investor.

The discussion over the reform of the Good Law in Brazil occurs in a timely manner because, by the initiative of the European Union and Japan, the country has just experienced an expressive defeat in the WTO dispute settlement mechanism, which condemned the key instruments of the Brazilian industrial policy. Schemes such as RECAP* *, Information Technology Law, INOVAR-AUTO*, PATVD*, and PADIS* aimed to foment local production via reduction of indirect taxes (incidents upon the sale of goods and services) were deemed to cause distortion of product prices and, therefore, considered subsidies incompatible with the rules of the GATT/WTO system. In this scenario of transition of the industrial policy, tax incentives instruments which are attached to inventive activities (since they operate through direct taxation and are linked to steps previous to production and commercialization) do not impact directly upon the prices of products and present a high degree of compliance with the WTO rules, pointing out a consistent

* RECAP = a special IRS scheme for the acquisition of capital goods;
 INOVAR-AUTO = a follow-up system of the incentive program to the technological innovation and growth of the productive automobile chain;
 PATVD = a program to support the technological development of the industry

path to the Brazilian industrial policy. Given the recent proliferation of the innovation-inducing regimes in the international practice, the economic analysts expect that the WTO should before long issue a specific agreement to restrict the possibilities of granting state aid regimes aimed towards innovation, which would seriously jeopardize the capacity of Brazil to place its regime and the international standards on an equal footing. Brazil's window of opportunities is being shut.

Brazil must do its homework. Attacking the failures of the Brazilian regime in a technical manner and consistent with the objectives of the law is a mission that the Brazilian science, technology, and innovation community must take over, sensitizing policy makers and the society towards the needs to change the legal framework for fomenting inventiveness, without which the Brazilian instrument will be doomed to fail as it is deemed today.



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This article is a result from the author's ascertainment and analysis, without compulsorily reflecting CEST's opinion.

of digital TV equipment; PADIS = a program to support the technological development of the industry of semiconductors.