"Is Financial VAT Neutral to Financial Sector Size?" Authors: *Julio López-Laborda and Guillermo Peña* Economics, The Open-Access, Open-Assessment E-Journal

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The discussed paper analyzes the influence of financial services taxes on the size of the financial sector. The overall size of a country's financial sector and the size of individual institutions have gained increased attention, especially in the wake of the global financial crisis of 2007-08. In this context, many proposals and initiatives have been launched in order to establish different types of taxation of financial institutions, through both direct and indirect taxes. Having these the purpose of reducing the size of the financial sector and its institutions or other aims, it is very interesting to determine the actual effects of the new taxes on financial sector size. In this regard, contributions aimed to calibrate both the sign and magnitude of such impact using empirical data should be welcome.

The paper written by professors López-Laborda and Peña is, in our opinion, a valuable contribution to the topic and opens promising paths towards a deeper knowledge of the issues raised.

On the basis of these assumptions, we discuss below some general and specific subjects addressed in the authors' paper.

The paper starts off with the concept of financial development and its measurement. However, an actual definition of financial development is missing, as well as a clear separation between the process of financial intermediation and the direct financing through markets. Further, the difference between the traditional financing activities and financialization should be emphasized. This last concept refers, as it is well known, to the transactions between financial institutions, i.e. inside the sector, that have no influence on the real economy or fulfill the financial needs of the rest of economic agents.

We think that some considerations when choosing a proxy indicator of the financial sector size should be taken into account. Thus, when including the market capitalization component, the indicator is affected by the market prices, resulting in a deviation from the resources actually channeled to the corporations. However, with regards to the domestic credit to private sector, the fair value is not mentioned. The first two variables focus on the domestic private sector, while the third variable relates to the public bonds market and thus the meaning and the scope of the word "public" should be clarified.

Further on, in section 3, they point out the role of the financial development on externalities, "facilitating the construction of infrastructure by the public government". Nonetheless, since this relationship is not evident at first sight, it would be more appropriate to underline the functions of financial institutions, which are summarized in the quoted paper of Levine (2005), or to refer to the seminal Schumpeter's contribution founded in his work of 1911.

As the authors point out, an oversized financial system generates several negative externalities. However, some analysts consider that the size is not necessarily harmful, and that a big size could even bring economic stability¹; the complexity of the operations carried out by financial institutions is the real concern and the source of difficulties.

In the same way, it would be interesting some reflection about the non-monotonous relationship between the financial size and the economic development².

In the paper they mention the subprime mortgage crisis in the US, as an example of domino effect. Nevertheless, the root of this kind of problem is related to the use of securitization and the loss of the traditional financial intermediation chain, and not so much related to the size. Furthermore, we could add the creation of complex derivatives, such as credit default swaps, with a design that hides where the core of the credit risk lies. The complexity and the view lost of the credit risk circuit are thus the primary source of the problem, as distinct from the size of financial institutions.

Either way, during a financial crisis, the praxis shows that the bigger the size of an institution, the smaller the chances that the public authorities do not take any action triggering a bail-out. The methodology followed by international credit rating agencies supports this point. Under these circumstances, it is difficult to avoid the presence of moral hazard. The prohibition of bailing out, which is one of the principles of the European Banking Union, pretends to avoid these situations. The controversy regarding the performance of some Italian banks, where it would be appropriate to apply the "bail in" principle (lost compensation against stocks and hybrid financial instruments as a first step), reveals the difficulties of putting into practice some measures designed to end with the moral hazard phenomenon.

In the paper, the different options of taxation in order to avoid the high systemic risks are mentioned. We think that the rules for the application of pigouvian taxes on the financial margins should be specified.

Regarding the financial VAT, the issue of taxation of the consumption of financial services is addressed. Since financial services are exempt in the model applied in most countries, financial institutions cannot recover VAT on inputs, so, in principle, they could try to include it in the final price. The effective taxation of financial services would allow the right to deduct VAT, lowering prices, which would nurture, taken separately, a higher demand and hence a higher size of the financial sector. The relevant price for the consumers eventually includes the applicable VAT; hence it is crucial to know the value of the price elasticity of the supply and demand of the financial services.

The authors choose the paper of Aigner and Bierbrauer (2015) to analyze the impact of financial VAT on the financial sector size. In the paper, we miss a reference to the tax incidence and, hence, the distribution of the tax burden between suppliers and consumers of financial services cannot be appreciated.

¹ J. Kay, "Other people's money. Masters of the universe or servants of the people?", Profile Books, London, 2015. Rather surprisingly, some recent studies show that the biggest banks are less profitable and also less risky than the smaller banks. Vid. M. Dupire and F. van den Spiegel, "The performance of large EU Banks in the wake of the financial crisis", Vlerik Policy Papers Series, n^o 6, 2016.

² S. G. Cecchetti and E. Kharroubi, "Reassessing the impact of finance on growth", BIS Working Papers, n° 381, 2012; J. M. Domínguez and R. López del Paso, "Servicios financieros y desarrollo económico: análisis empírico para el caso de la Unión Europea y los países MENA", Revista de Economía ICE, nº 878, 2014.

They state that the exemption regime of financial services leads to an increase in loan prices, a decrease in the credit demand and a decrease of the size of the financial sector. According to the aforementioned, we should determine the distribution of the tax in case the VAT on inputs could be recovered as a consequence of removing the exemption on financial services.

The authors review the literature on the determinants of the financial sector size. As they state, many variables can influence the financial sector size. The complex relationship that may arise complicates the determination of the key factors, especially in a context of financial integration, with a varying degree in the corporate and retail segments. It is also necessary to be able to clarify the degree of simultaneity and reciprocity between the dependent variables and some significant independent variables. For example, the financial sector size depends on the income per capita, but this also depends on the weight of the financial sector in the economy.

The accuracy of some details with regards to the equation of the model would make it easier to understand it (vgr.: omission of the coefficient α in equation (3), explanation of the meaning of the number of lags if we only consider one lag, or the consistency of the subindexes used in the equation).

In the same way, we should consider some of the issues raised before with regards to the variables used as indicators of financial development.

We could also make some comments with respect to the independent variables:

- i) the fact that the financial VAT acts as a binary variable does not allow to differentiate between tax rates that can be very different from each other;
- ii) the public sector size is calculated taking the logarithm of public expenditures instead of applying the usual ratios on the GDP; however, the data collected in table 3 seem to reflect those ratios;
- iii) the ratios on the weight of economic sectors on the GDP are not used either;
- iv) the definition of public debt corresponds to the central government, not taking the territorial governments into account, whose relevance could be significant in countries with a federal or quasi-federal structure;
- v) it would be helpful to specify the meaning of "banking crisis" as well as the prices considered in the variable inflation (in contrast, we could forego the definition of GDP per person);
- vi) The definition of the variable with regards to the market power of the banking system should be more precise, since the concept is not clear enough (difference between credit and deposit interest rates, financial margins in terms of the total assets average, gross margin...); as it is well known, financial margins are influenced by the relative importance of corporate and retail segments and the extension of the branch networks.

Besides the above mentioned, there are other important aspects to be emphasized:

a) On one hand, the level of capital requirements is a first order factor of banking credit growth, as well as the assets structure (consumer credit, credit with mortgage guarantee, corporate finance...), which could trigger different requirements of capital; and, of course, the higher or lower ability of banks to meet the solvency ratios enable them to have a higher or lower rhythm in credit supply.

b) On the other hand, in the models used for estimations the dependent variable is always an indicator of the financial sector as a whole. Although the research of the impact on this variable is important, because of not studying a fundamental relationship, namely between the financial VAT and the size of individual financial institutions, it is hard to identify the influence of taxation policy on institutions with systemic risk. For a given size of the financial sector as a whole, we should check the number of institutions that can be considered as systemic.

The authors show, according to the findings³, that the financial VAT and the independent taxes on financial services do not have an influence on the size of the financial sector⁴. They conclude that the VAT on financial services is not a good instrument to avoid systemic risks caused by an excessive size of the banking sector.

According to prior caveats, it would be convenient to compare this result with the expected effects in the market after the introduction of a tax on financial activities which could affect significantly both to supply and demand. In the same way, it would be helpful to supplement the analysis of the financial sector as a whole with a study of the market share of the main entities and how the introduction of taxes on financial activities could affect the consolidation or concentration in the sector and the growth or backward of systemic banks.

 $^{^{3}}$ The possibility of applying the Hansen and Breush-Pagan tests as supplementary to those used could be mentioned.

⁴ The present writing (page 21, 4th paragraph) could introduce some confusion to the reader due to the words "In contrast", which could be replaced with "On the other hand" or "Also", considering that the reference to the contrast with theory appears at the end of the phrase.