

INTER-LOCATION SMALL BUSINESS TAX RATE VARIATION IN UKRAINE: WHAT IS BEHIND IT?

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Abstract

This paper's aim is to research into the variation in effective tax rates among local jurisdictions of two regions of Ukraine, Ivano-Frankivsk and Vinnitsa, in order to get new insights into the peculiarity of inter-location fiscal competition in the context of a transitional economy. It is argued that, despite a highly centralized taxation system, the room for inter-jurisdictional tax competition is somewhat limited, at least with regard to a unified small business tax for natural persons. This competition could take on a very specific shape because it is closely related to the issue of hidden economy. The study demonstrates that local fiscal policy has a potential to affect the number of business units registered in a specific jurisdiction.

Keywords: fiscal autonomy, tax rate discretion, unified small business tax, Ukraine

1 Introduction

Local governments' revenues in any country consist of own and ceded national taxes, consumer payments and state grants of various kinds. The actual combination of different revenue types in the local government budget is to a great extent determined by the historical development of the respective country. Here, economies in transition provide a very good example of how the revenue system characteristic of the command economy transforms into one which is consistent with the market economy and decentralized deci-

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sion-making. This process usually takes some time. As noted in many studies¹, a high dependence on central government grants and low fiscal discretion is very typical of transition economies.

Revenue assignment in a multi-level state could be a specific mixture of elements belonging to different revenue systems. In Ukraine, the local government revenue system is based on the separation of revenues (with some national taxes like personal income tax (PIT) allocated to sub-national governments) combined with donations and contributions. In its main components, this revenue system could be characterized as a very centralized one, despite the fact that some kinds of revenue allocated to local governments display characteristics which create opportunities for horizontal fiscal competition among jurisdictions; namely those towards which local governments have some kind of tax rate discretion. The only question lies in the scale of such revenue types, which is a key issue for local fiscal autonomy.

Enjoying a certain degree of fiscal discretion, local governments could exercise some influence on local economic development. One of the important mechanisms employed in many countries throughout the world could be simplified taxation applied to small business. Using the simplified taxation model local authorities could, on the one hand, make shadow economic activity less attractive to small and micro-entrepreneurs and, on the other hand, make such businesses contribute to the funding of local public goods provision. At the same time, local tax discretion creates prerequisites for attracting business units to a specific location.

Horizontal fiscal competition among local governments could be viewed as a type of behavior of territorial units aimed at attracting more taxpayers through offering them favorable tax regimes. As a result of unrestricted competition, tax rates tend to diminish and in extreme cases such a policy could (at least theoretically) result in zero rates and a collapse of local public finance. But self-interested rational taxpayers are not only interested in having lower tax burdens, but also in maximizing their utility. The latter means that they prefer to have the best possible benefit-cost combination with regard to local public good consumption. This fact prevents local governments from decreasing tax rates to zero.

At the same time, being dependent on central government grants, local governments could compete not only for taxpayers, but also for fiscal assistance granted by the central government. Under certain conditions, this could trigger distortion of local revenues with tax revenues approaching zero. As Musgrave (1961) showed, this could be the case when the intergovernmental transfer system is based on the 'pure equalization scheme' with an equalization approach based on actual equalization of tax proceeds. This kind of fiscal competition could be treated as 'indirect tax competition' where local governments bring down tax rates because they seek to be free-riders in getting access to the equalization funds accumulated by the central government through their mandatory contributions.

The scale and scope of tax competition greatly depend on local tax discretion and factor mobility. In a system of fully independent local authorities and with no mobility cost, the result will be similar to the one described in Tiebout's pioneering paper (1956). The Tiebout hypothesis concerned only private households and was built on a set of very re-

¹ See e.g. Bird et al (1995), Davey (2002), Horvath (2000), Sevic (2006), Slukhai (2005).

strictive assumptions which are not to be observed in a real world full of various imperfections. A transition economy adds more to these imperfections due to its incompleteness.

Here, in addition to the wide-spread non-market behavior of private economic agents, we see a very imperfect public sector with highly limited local revenue and expenditure discretion accompanied by low factor mobility. This is an obvious characteristic of the Ukrainian transition economy where there is no public sector tradition and factor markets function very inefficiently (some of them are non-extant like the market of land intended for cultivation) because of the deeply rooted regulative syndrome pursued by the central government, accompanied by weak economic institutions. That is why it would be interesting to see whether a limited local government fiscal autonomy triggers mobility of economic agents even under such peculiar circumstances.

It is worth mentioning that economists, while dealing with fiscal competition issues, do not pay much attention to the size and structure of the companies involved. However, this issue is of high importance because it has behavioral implications. E.g. multinational corporations could effectively use the international tax rate differentials in order to minimize tax burden; big companies with divisions spread over different localities could choose the place of their registered offices for local taxation purposes. The case below highlights some issues of fiscal competition in the case of very small companies which are therefore not sufficiently mobile.

Until now, fiscal competition in Ukraine has been beyond the scope of academic research. The same relates to other post-Soviet countries: despite several publications dedicated to fiscal competition in Russia (Besstremiannaya 2001; Libman & Feld 2007; Solanko 2001) the topic in general still requires more detailed research.

In order to bridge this gap, the situation with inter-location tax rate differentiation between two regions, Ivano-Frankivsk and Vinnitsa, has been studied, which resulted in getting some insight into the specifics of inter-location fiscal competition in a transition economy context.

The study below is structured in the following way. First, it summarizes modern developments in the fiscal competition theory concerning local governments. Then it highlights the general issues of local fiscal discretion in Ukraine. After that it presents the characteristics of a specific tax which, as suggested, plays a role in triggering tax competition – a unified small business tax for natural persons. Finally, the actual potential and prospects of fiscal competition are evaluated, followed by a conclusion.

2 Approaches to fiscal competition

From the viewpoint of private economic agents, fiscal competition among jurisdictions has two dimensions: intra-national and international. From our perspective, the intra-national competition is the major concern. Fiscal competition among local governments within a national economy could be much more intense in comparison to that among individual countries because local governments are smaller in size in comparison to an entire nation and the marginal influence of taxpayer reallocation has serious fiscal consequences for the governments involved.

The first attempt to apply a competition model to the provision of local public goods was presented in a pioneering article by Tiebout (1956). Based on local governments' autonomous decision making concerning revenues and expenditures under consumer preference heterogeneity, combined with the absence of mobility costs, spillovers, and perfect information Tiebout constructed a model later referred to as 'voting with feet': perfectly mobile consumers choose the place of dwelling by looking for the best benefit/cost combination related to local public good provision; this will enhance social welfare through generating a social optimum with regard to public goods.

Tiebout's approach unleashed a flood of literature². Some researchers criticized the approach claiming that the constraints under which it was developed were not realistic. Others tried to find empirical evidence in support of the hypothesis. The follow-up studies also demonstrated that, in contrast to Tiebout's idea, fiscal competition among local governments tends to be destructive as concerns public good delivery.

One of the first empirical tests was undertaken by Oates (1969) who concluded that consumers really care about local benefits of public good provision and related tax burden when choosing location.

Very soon Tiebout's model was extended to the entrepreneurial sector. So Oates and Schwab (1988) concluded that municipalities try to attract new businesses by offering a combination of local tax rates and local infrastructure services. In the case of homogenous jurisdictions the capital tax rate will tend to be zero. The approach used by Oates and Schwab was based on property evaluation as a measure of benefits received by the population from the local government activities, but this measure cannot directly reflect the price to be paid for the public goods provided. Ellson (1980) concluded from empirical data on the U.S. metropolitan areas that the Tiebout-type mobility could be counteracted by some economic factors like household income size or type of area.

The Tiebout hypothesis was tested not only on the USA, but also on some European countries with high regional government fiscal discretion, like Switzerland which provide quite obvious evidence concerning the negative influence of tax competition on tax rates. So it was found that tax competition among metropolitan areas levels out tax rates making them less progressive (Hodler & Schmidheiny, 2006).

The researchers expanded the Tiebout's approach in different ways, while eliminating some of its restrictive assumptions. It was found out that tax competition creates fiscal externalities and could be offset by spillovers. E.g. Buchanan and Goetz (1972) stressed the role of fiscal externalities stemming from shifting population among jurisdictions. Bjorvatn and Schjelderup (2002) concluded that spillovers reduce the role of tax competition.

Following the idea of a harmful manifestation of tax competition as a 'race to the bottom' first mentioned by Oates (1972), Zodrow and Mieszkowski (1986) used another approach different from the one by Tiebout. They ruled out heterogeneity of consumer preferences in their model, introduced horizontal and vertical externalities, and tried to analyze a more complex world with both households (immobile) and companies (mobi-

² For an extensive overview of literature, see Marsh & Kay (2004); Ribstein & Kobayashi (2006), Wilson (1999).

le). The latter consider locally provided public goods as a production factor. They demonstrated that, under perfect competition conditions, distortionary property taxation would diminish the level of local public goods provision at both local and national levels, and in comparison to a head tax. As a result of fiscal competition, reduction in lump-sum property tax on mobile capital would bring down the level of local public services delivered both to individuals and companies.

The follow-up research done e.g. by Dhillon et al (2006) verified these conclusions and made some extensions: depending on model assumptions, tax competition could bring either an efficient or an inefficient result (the latter could be both underproduction and overproduction of public goods).

Wildasin (2003) draws special attention to factor mobility which could place major constraints on the local governments' abilities to derive additional revenue from taxation in a dynamic framework. His theoretical model in its static and dynamic variants proves that in a world of public goods provided under perfect competition conditions (when factors are perfectly mobile, local governments are very small and do not demonstrate strategic behavior), the local capital tax rates will tend to be zero. But breaking any of conditions mentioned above will lead to non-zero distorting taxation.

Some researchers have shown that tax competition may contribute to shifts in the composition of private revenue. So Fuest and Weichenrieder (2002) show that tax competition through decreasing tax rates induces people to shift revenue sources to corporate income. There is a body of literature exploring the interaction between intergovernmental transfers and local tax policy. Musgrave (1961) pioneered the analysis of interaction between the fiscal equalization scheme and the local tax burden. He concluded that equalization methods in a federal system are not neutral to local tax efforts. In the extreme, as in the case of actual outlays equalization, the local rates will go down to zero. The theoretical fiscal assistance schemes he introduced include some possibilities to prevent local governments from diminishing the taxation level and thus preserve the appropriate public good supply.

Following his ideas, some researchers considered the state grant policy as a means of restoring efficiency damaged by tax competition. Bucovetsky, Marchand, and Pestieau (1998) concluded that state grant policies could improve the inefficiencies produced by tax competition. One of the recent studies by Hauptmeier (2006) showed that grant policies could influence the local government spending patterns (which, under the condition of limited revenue discretion, could comprise an important means of horizontal fiscal competition) and offset the negative manifestations of fiscal externalities.

Despite of extensive literature on fiscal competition in developed economies, there are very few studies dedicated to it in the transition economy context; most of them are dedicated to Russia. One of the very first was a paper by Solanko (2002) who concluded that interregional tax competition seems to be less harmful in a transitional context than in the classical tax competition models. Another study worth mentioning is a paper by Libman & Feld (2007), dedicated to analyzing deviations in regional tax effort as an instrument of fiscal competition within a fiscally centralized country, showing that regio-

nal governments in Russia could manipulate tax auditing efforts in order to *de facto* decentralize the public finance system.

To sum up, we could say that fiscal competition is a fact which arises from local fiscal autonomy. As the body of research above showed, it has both advantages and disadvantages as concerns local public good provision: it could enhance public sector efficiency through making local governments more sensitive to local demands, but it could also be distorting through creating incentives for local governments to hunt for extra taxpayers; the latter kind of behavior would generate negative fiscal externalities resulting in diminishing local tax rates and related problems with funding public outlays. To quote Wilson (1999, p. 298), “As such, competition has both good and bad aspects, the importance of which varies across the attributes of the goods and services the governments provide”.

There are of course some mechanisms that could limit harmful manifestations of fiscal competition and the most important one could be, as Musgrave (1997) noted, fiscal coordination. The practical issues with diminishing harmful manifestations of tax competition in some spheres were discussed, e.g., in papers by Bröchner et al. (2006) – the corporate tax coordination within the EU, and by Evers et al. (2004) – issues of diesel excise competition within the EU. Hence, fiscal competition in the public sector must be in some way limited by constraints imposed by the central government on local fiscal discretion, by local authorities themselves by voluntarily deciding upon tax harmonization, and by local population by making local governments more accountable.

3 Local revenue discretion in Ukraine

So far there have been no studies dedicated to tax competition in Ukraine. The reasons are rooted in peculiarities of the local revenue system which is, as in many other unitary states, highly centralized in all its components.

The dominating tax revenues of local governments in Ukraine after the budgetary reform in 2001 are the ceded central government revenues, the most important of which is PIT that comprises about 30 per cent of local governments’ total revenues on average and is distributed among regional, district and city/village governments in fixed proportions. As shown in Table 1, there are actually no true local revenues in Ukraine over which they have a substantial degree of discretion.

There are only a few duties which can increase the revenues-raising capacities of local governments. These include local taxes (the list laid down in the legislation includes 16 duties of different types, all with quite a limited possibility of setting tax rates) and the unified small business tax (UT). Taken together, these two accounted for barely 2.6 per cent of total revenues from the aggregate sub-national sector in 2006.

The real discretion over these two sources of revenue is not very high for two reasons: (i) the minimum and maximum tax rates are set by legislation and (ii) local governments have no possibility to discipline bad payers. Tax administration in Ukraine is centralized – local governments do not have their own tax administrations and this fact makes it almost impossible to monitor taxpayers located in the territory under their jurisdiction. All duties are collected by the State Tax Administration offices having no motivation to disc-

Table 1. Shares of some local revenues in total revenues (including transfers) and respective degrees of local discretion (2006)

Duty	Share in local total revenues	Discretion concerning		
		legislating	tax-base setting	tax-rate setting
Personal income tax	30.0	No	No	No
Corporate profits tax	0.4	No	No	No
Motor vehicle tax	1.4	No	No	No
Land tax and land rent	4.1	No	No	limited
Excises	0.1	No	No	No
License fees	0.7	No	No	No
Trade patents	1.0	No	No	No
Local taxes	0.8	very limited	No	limited
Fixed agricultural tax	0.2	No	No	No
Unified small business tax	1.8	No	No	limited
Non-tax revenues	6.3	partly	n/a	n/a
Capital gains	3.5	Yes	n/a	n/a
Targeted funds	1.9	Yes	n/a	n/a
Official transfers	45.0	No	n/a	n/a

Source: Authors' calculation and estimation based on the Ministerstvo Finansiv Ukrainy (2007).

lose the information on taxpayers who are in arrears to the respective local budgets³ – and local governments do not even keep registers of local taxpayers, fully relying on the fiscal departments of regional and district state administrations in estimating and planning their revenues. That is why strategic tax auditing and collection could hardly be an instrument of fiscal competition among local governments as is usual in many federal countries, including Russia (see Libman and Feld, 2007).

Generally, it should be recognized that the real discretion of local governments over revenues in Ukraine is extremely low⁴ and, broadly, their ability to affect the return to the local revenue base seems to be very weak. The long-lasting debates about granting them more revenue discretion by imposing a local property tax that could greatly improve their revenue positions have not brought any positive results so far.

However, there are some fiscal instruments which could be treated as local discretionary instruments. They primarily include regionally-motivated central tax privileges and value added tax (VAT) reimbursements. According to empirical evidence, several (most

³ The real situation in this field was analyzed in a research paper produced by AUF (2003).

⁴ The same is also true for other transitional economies. See e.g. Zhuravskaya (2000) about low revenue discretion of the cities in Russia.

developed) regions in Ukraine attract tax privileges out of proportion with their contribution to the national economy (NDFI 2004).

Disproportions in VAT compensation “chill and demoralize the competitive environment”, as head of the State Tax Administration recently noted (Bilousova 2008). E.g. enterprises in the Donetsk region cashed 93.3 per cent of VAT reimbursement claims in 2007, whereas enterprises located in Kyiv region only 50 per cent. The prevalence of such a situation could be attributed to ‘state capture’ at the central level where the most powerful business clans make the central state authorities give them hidden additional tax advantages with respect to the place of their business operations. However, there are no such possibilities at the local level, because VAT proceeds are fully allocated to the central government budget.

The low revenue discretion does not mean that there is no potential for fiscal competition among local authorities at all. Fiscal competition concerns some specific types of their revenues. Being limited in their ability to attract more taxpayers through manipulating locally set tax rates, they compete for vertical state transfers, which are numerous: equalization grants, additional donations for social infrastructure maintenance and earmarked grants of different types. The higher-level sub-national authorities (regions and districts) do have some degree of formal discretion over these revenue types. E.g. each regional authority adopts a methodology of allocating equalization grants to the basic-level local governments – cities, towns and villages, but this methodology is to be implemented by district authorities which actually employ a discretionary (*ad hoc*) approach for the distribution of equalization money among subordinated governments, trying to maintain the existing social infrastructure. Assuming that 92 per cent of local governments in Ukraine receive equalization grants and that the average share of total grants in the revenues of aggregated local governments in the Ivano-Frankivsk and Vinnitsa regions exceeds 60 per cent (and even more for the basic-level governments in rural areas), it would be reasonable for them to compete in order to make the revenues included in this dominating share as large as possible. This is more or less true for all regions of Ukraine. This kind of competition could be both formal (when local governments require the fiscal authorities to provide them with grants pursuant to regulations) and informal (when some local administrators establish personal relations to their superiors).

Nevertheless, can we assume that low fiscal discretion and inherent vertical fiscal competition make horizontal fiscal competition among local governments impossible? There is no definite answer to this question, because, as shown before, some levies accruing to territorial budgets are subject to a certain degree of local government discretion concerning the rates and therefore the local governments may be involved in some sort of horizontal fiscal competition. And the best candidate for revealing tax competition could be one of the levies of this kind – the unified small business tax (UT). It is worth mentioning that the relative importance of this levy for sub-regional level governments is quite high. E.g. its share in cities of regional significance was about 5 per cent of total tax revenues excluding intergovernmental grants in 2006 (rank # 3 among tax proceeds collected), in cities of district significance 12 per cent (rank # 2), in townships 9 per cent (rank # 3) and in villages 7 per cent (rank # 3).

This is why we may assume that this tax could reflect at least some degree of competition among jurisdictions. As shown in the next chapter, the structure of this tax gives grounds for such an assumption.

Since the tax in question is levied on small businesses, Wildasin's note concerning the limited role of a local government's fiscal instruments will not hold. As was noted, "The exposure of local governments to external markets means that tax, transfer, and other redistributive policies involving mobile factors of production are ineffective because the net returns of these factors are determined in markets whose geographical scope extends beyond that of any single locality" (Wildasin 2003, p. 2571). But this is not true for small businesses whose geographical scope is mostly limited to a city or even village where the respective business unit is registered: in Ukraine, small businesses registered as sole proprietorships are mostly localized in the entrepreneur's home community. It could be suggested that in such a situation local fiscal policy concerning taxing small businesses may result in differing tax rates imposed on payers by their respective governments.

4 Basic features of the Ukrainian unified small business tax

Like many other transitional countries as well as developed ones, Ukraine uses a simplified taxation approach in order to make small businesses contribute to the funding of public expenditures. The unified small business tax was introduced by the Presidential Decree (1998) in order to give way to legalization of small business units which had very strong motivation to escape taxation through non-registration under common business tax regime.

According to the Presidential Decree on the Simplified System of Taxation, Accounting and Reporting System for Small Business Entities (issued in 1998, amended),⁵ small businesses in most fields of economic activity⁶ were given the right of switching to UT, instead of paying separately VAT, EPT, PIT, land tax, trade patent fee, trade permit fee, and contributions to social security and pension funds, some local taxes and duties, etc. The small businesses which are eligible can be both natural and legal persons.

The most important provisions of the Decree could be summarized in the following way.

- Eligible small businesses (sole proprietorships) which hire up to 10 employees and whose annual turnover does not exceed UAH (Ukrainian currency unit) 500,000 may choose to pay unified small business tax for natural persons (UTNP). Lump sum tax rates are annually set by the local councils where the business units are registered within a range between UAH 20 and 200 per month. In the case of performing various activities which are taxed at different rates, a business entity pays the tax at a maximum rate set by the local council. Hiring people or employing family members will result in a higher tax rate – it will be calculated according to the formula

⁵ It should be substituted by a permanent legal act (Law on the Simplified System of Taxation), but the legislators have still not had time to deal with this.

⁶ The following business activities are not eligible for simplified taxation: gambling, lotteries, currency exchange, production of excisable goods, production and selling of jewelry.

$T = t(1 + 0.5n)$, where T is monthly tax obligation, t is basic tax rate set by the local council, n – number of employed persons (the entrepreneur himself excluded).⁷

- Eligible small businesses (legal persons) which hire no more than 50 employees and whose annual turnover does not exceed UAH 1,000,000 may also switch to unified small business tax. They can choose between two options: (i) paying a unified small business tax for legal persons (UTLP) at a rate of 6 per cent of their turnover in case they decide to pay VAT but not excises on domestically produced goods, and (ii) 10 per cent of turnover in case they choose not to pay VAT, but to pay excises on domestically produced goods.
- Local governments retain 23 per cent of the total UTLP amount collected; the rest goes to the state budget (20 per cent), State Pension Fund (42 per cent) and state social security funds (15 per cent); as concerns UTNP, local governments retain 43 per cent, with the same shares for State Pension Fund and state social security funds. The UT proceeds are assigned to the local budget revenue basket dedicated to fund the functions delegated by the central government and taken into account while calculating the equalization grant amount.

From the legal provisions summarized above we can draw the following conclusions.

- Ukraine practices a dual approach to simplified small business taxation, using a lump sum rate as concerns natural persons (this is also characteristic of many CEE countries) and a fixed proportional rate as concerns legal persons (this is characteristic of most “old” EU countries).
- As concerns UTLP, there is actually no discretion for local governments to vary tax rates because the tax rate schedule is set by law and taxpayers can freely choose the rate according to their own benefit calculus.
- As concerns UTNP, there is some room for local government’s tax rate discretion because the legislation only sets the tax rate margins and, unlike in many other European transition countries, allows local governments to decide upon setting tax rates for different economic activities within these margins. The taxpayers are only free to choose between switching to the UTNP at its current rate and paying all common business taxes.

In view of all above said, it follows that the Ukrainian UTNP is in essence a source-based lump-sum tax on business and should generate no economic distortions for economic agents in terms of their input-output decisions. Additionally, its burden could hardly be exported to other jurisdictions because goods are traded mainly on the local market. However, in many cases this tax can be treated as a residence-based tax, as sole proprietorships are mainly registered at their home addresses. Since the subject of tax (a registered business unit) is of restricted mobility, it is expected that there will be quite significant differentiation in tax rates among different jurisdictions.

Given the competitive market structure and quite elastic demand in big cities, small businesses are not in the position to shift the tax burden to consumers by raising prices.

⁷ It is worth noting that the officially recorded number of hired employees is very low – less than one person per business unit on average.

That is why raising the UTNP rates in cities will not have any significant impact on prices.

As concerns tax administration, it is centralized and local governments bear no administrative cost, which is only involved in decision-making on tax rates. As a matter of fact, UTNP is highly cost-effective even from the taxpayers' perspective, due to its very simple procedure: taxpayers just have to transfer a fixed amount of tax once a month without any special checking procedure.

Comparing the Ukrainian UTNP with the small business taxation practices in Croatia (see Blažić, Dimitrić, and Škalamera-Alilović 2006), one must admit that the Ukrainian UTNP looks much more attractive for small businesses to be chosen as an alternative to a common taxation regime for several reasons: (i) the turnover limit for switching to UTNP is six times higher in Ukraine compared with that in Croatia (due to current exchange rates; the price parity difference which is significantly in favor of Ukraine is left out here); (ii) the tax base has no connection with the nationwide pay level; and (iii) the checking procedure is very simple.

Taking all of the above into account, one can understand why virtually all registered sole proprietorships eligible for UTNP in Ukraine opt for such an opportunity, whereas their number in Croatia is very low, despite the fact that the total number of business units concerned is similar in both countries. As a matter of fact, the number of small businesses registered as UTNP payers in Ukraine has increased more than tenfold in the period 1999-2005, from 66.1 to 696.8 thousand, according to Lyutyi & Romanyuk (2007).

Based on all this, we can conclude that the current structure of UTNP gives reasonably good chances to boost tax competition among neighboring jurisdictions (local communities) because the local discretion concerning tax rates is quite significant. On the other hand, a low local government share in tax proceeds (43 per cent of total UTNP and 23 per cent of total UTLP proceeds, as noted above) and a low share of taxes in total revenues undermine incentives to manipulate it, while implementing own fiscal policies of⁸, either by raising or reducing tax rates in order to attract more taxpayers.

In fact, the analysis above suggests that local councils can apply a policy aimed at attracting small businesses to various types of economic activities carried out in the territories under their jurisdiction. This can be proven by the data on actual tax rates imposed by local governments in the Ivano-Frankivsk region listed in the Annex. According to this information.

- Tax rates for socially important activities are lower in comparison to those that tend to be more commercial. So the *highest* average tax rates are applied (in descending order) to wholesale trading, forestry and dentistry. By contrast, the *lowest* average tax rates are applied (in ascending order) to shoe repair, production of wooden goods and souvenirs, and car passenger transport. It is likely that local councils try to increase the number of businesses which render services and produce goods for lower-income people.

⁸ These conclusions concerning any tax were theoretically proven by the author in his book published in 2002 (see Slukhai 2002: 34-38).

- In rural areas, local councils tend not to care so much about attracting small businesses in the areas of activity which seem to be less developed. Surprisingly, rural districts hold $\frac{1}{2}$ of the number of *highest* average tax rates for some activities, out of 26 listed in Annex. In addition, in many cases the *highest* UTNP rates imposed by rural councils differ greatly from those imposed by urban ones. However, the highest rates imposed by urban councils do not deviate so much from those imposed by rural ones.

Another important observation about the behavior of both small businesses and local governments concerns some institutional peculiarities of the way in which the tax proceeds are being used. According to the Budget Code of Ukraine, this tax is included in the basket of revenues used for calculating the amounts of equalization grants. The revenues mentioned above are supposed to fund the expenditures delegated by the state to local governments. This implies the following: (i) UT proceeds are not supposed to affect expenditures on the local government own functions, (ii) a bigger amount of UT could negatively affect the size of the equalization grant of the respective local government in the next budget year; (iii) the basic structure of the tax (namely some degree of freedom in setting tax rates) contradicts its purpose, namely the funding of functions delegated by the state which must be performed nationwide in accordance with the relevant standards, irrespective of location.

5 Tax competition evidence

5.1 Methodology

In order to trace the evidence of tax competition with regard to UTNP, the following hypothesis was put forward:

*A negative correlation between an effective UTNP rate (otherwise defined as “average tax-burden per tax-payer”) and the number of taxpayers observed suggests the presence of tax competition.*⁹

Of course, one should not overstate the importance of such evidence, but there was no other possibility to prove the hypothesis because of lack of comprehensive data at the local level.

From a methodological point of view, several approaches and observations contained in empirical studies by different authors were considered important for the methodology employed: the correlation between tax rate and number of taxpayers as a measure of tax competition (Feld and Kirschgässner 2001); the negative correlation between locally set business tax rates and the amount of equalization grant received (Egger, Koetenbuerger, Smart 2007).

In order to test the hypothesis stated above, two samples of cross-section data were examined and regressed. The first one consisted of 20 territorial units (6 urban councils

⁹ A similar argument was used by Feld and Kirchgässner (2000), when the income tax competition in Switzerland was investigated.

and 14 rural districts) of the Ivano-Frankivsk region and the second one of 32 territorial units (6 urban councils and 26 rural districts) of the Vinnitsa region.

The following data from 2006 was collected for analysis: (a) total revenues of combined district and city budgets; (b) proceeds from UTNP (used for computing the ‘effective UTNP rate’ for each jurisdiction because more detailed data on actual tax proceed cross-section with regard of any specific tax was not available); (c) number of UTNP payers across territorial units; (d) number of local inhabitants.

The number of taxpayers was weighed against the size of population in order to rule out the influence of population density; this measure was transformed into “number of UTNP payers per 10,000 inhabitants”.

The effective UTNP rate was calculated by dividing the actual UTNP proceeds by the number of registered taxpayers. This procedure eliminates the structural differences in the areas of business activity throughout the regions which have some relevance as discussed in Section 3, but it gives a vision of aggregate fiscal behavior of local authorities towards small business units. We suppose that this measure truly reflects the trade-offs between fiscal and other motives in local government behavior.

Table 2 contains data on some characteristics of the two samples.

Table 2 Regional samples’ characteristics

	Ivano-Frankivsk	Vinnitsa
Number of cities of regional significance	5	6
Number of rural districts	14	27
Average population per territorial unit, in 1000	72.9	51.1
Average number of UTNP payers per territorial unit	1,527	898
Average effective UTNP rate per business	522	638
Minimum effective tax rate	337	399
Maximum effective tax rate	722	933
Tax rate variation coefficient	0.18	0.24

Source: authors’ calculation

Generally speaking, both samples demonstrate a very uneven territorial distribution of population, UTNP payers, and UTNP proceeds. The values demonstrate a high concentration of economic activity in the regions’ capitals – the cities of Ivano-Frankivsk and Vinnitsa. So the city of Ivano-Frankivsk accounts for 17.1 per cent of the regional population, 32.8 per cent of UTNP payers, and 27.4 per cent of the UTNP proceeds, and the city of Vinnitsa 21.6, 37.1, and 42.0 per cent respectively. The concentration ratios are higher in the Vinnitsa region where cities are smaller in size in comparison to the Ivano-Frankivsk region, due to deeper agricultural specialization of the regional economy. In terms of the theory summarized above, we must conclude that, given the wide variations among jurisdictions, there must be some room for tax rate variance.

The above data suggests that the average effective UTNP base is far from the maximum (2,400 UAH *per annum* for a single business unit, excluding the cases when small businesses hire additional work force), standing at about 22 per cent of its maximum value in the Ivano-Frankivsk region and 26 per cent in the Vinnitsa region. This could signal that local authorities do not care much about maximizing the UTNP proceeds, as they rely on other sources of revenue. On the other hand, we can also assume that, by setting low tax rates, they try to attract more taxpayers to the region. The latter assumption could be supported by a very significant difference between minimal and maximal effective rate values.

The samples also showed that rural districts are disadvantaged in terms of basic economic indices in both regions. In the Ivano-Frankivsk region they comprise 65.5 per cent of the population, 49.4 per cent of UTNP payers, and 53.0 of the UTNP proceeds, and in Vinnitsa 69.6, 51.7, and 47.2 per cent respectively.

Such distribution of taxpayers and tax proceeds should not come as a surprise because urban areas are much more attractive for doing business than the rural ones, due to more concentrated consumer demand and network externalities.

In order to get a more reliable correlation, the samples of both regions were merged, because in each jurisdiction local governments set the UTNP rates autonomously within the margin determined by law, so the mere fact that a governmental unit belongs to a specific region does not influence the distribution of effective tax rates among jurisdictions.

In the model, the following theoretical assumptions concerning the interrelations between independent and dependent (“the number of UTNP payers per 10,000 of population”) variables can be put forward:

1 *The size of population* in a respective community is supposed to have a positive effect on the number of UTNP payers for various reasons: (a) from the economic agents’ perspective, the positive effect of being in a bigger market outperforms the negative effect of higher tax rates, so private benefits derived from entering the market exceed the costs of funding public needs and increase the inflow of business units (we must also bear in mind that local the governments’ abilities to set tax rates are limited); (b) from the local governments’ perspective, the awareness of this situation creates a good opportunity for applying higher UTNP rates in bigger urban communities.

2 *Since urban communities* are usually more populous than rural ones, the former would attract more businesses despite the supposed higher tax rates.

3 *The UTNP share is not neutral* with respect to the number of small business units (taxpayers), but could also be ambivalent. We could suggest that, in order to have *ceteris paribus* larger UTNP proceeds (which could be a natural priority of any local government) and, consequently, to have a bigger share in this revenue source, a hypothetic local government could pursue two alternative strategies: either raising the rates (and possibly losing a certain number of taxpayers), or reducing the rates (and possibly attracting an additional number of taxpayers to its territory of jurisdiction). Having in mind the low mobility of small businesses, we can assume that local governments would opt for the for-

mer type of strategy. That is why we assume that the correlation between the UTNP rate and the UTNP share is positive.

4 It would also be natural to assume a negative correlation between the equalization grant share and the number of taxpayers. In Ukraine, there is a general consensus among economists concerning disincentives for tax revenue collection generated by the current equalization system¹⁰.

5 *The effective UTNP rate* is (according to p. 3 above) negatively correlated with the number of taxpayers.

These assumptions were tested on the multiple regression models presented below.

5.2 Results and interpretation

In the merged sample, the dependent variable (“number of small business units per 10,000 of population”) was regressed with regard to the following factors (independent variables): “number of inhabitants”, “type of territorial unit” (dummy variable), “UTNP share in local revenues”, “equalization grant share in local revenues”, and “effective UTNP rate”.

The OLS multiple regression results are presented in Table 3 below (Model 1).¹¹

Table 3 Multiple regression results for the dependent variable “number of unified small business tax for natural persons payers per 10,000 of population”

	Coefficients	Standard error	t-statistics
Y-intercept	180.142	74.938	2.403
Population	0.00012	0.0002	0.455
Dummy for rural (0) or urban (1) locations	93.491	38.339	2.438
UTNP share in local revenues	529.367	393.277	1.346
Equalization grant share in local revenues	-0.001	0.132	-0.009
Effective UTNP rate (UAH per annum)	-0.089	0.119	-0.753
Standard error	104.751	X	X
N	52	X	X
R ²	0.198	X	X

Source: authors' calculation

The regression presented in Table 3 produced some quite interesting results. Most of them supported the theoretical deliberations stated above. But we need to be cautious in interpreting the results with a low value of R² and insignificant values of some coefficients.

¹⁰ For a more detailed discussion of this issue, see e.g. Lunina (2006) and Tarangul (2003).

¹¹ The testing of Models 1 and 2 for heteroscedasticity (white test) showed negative results.

- 1 There is a positive (though insignificant) correlation between the size of population and the number of small businesses. This is also strengthened by the quite significant influence that the administrative unit type has on the number of businesses; the coefficient demonstrates that urban locations attract small businesses much more intensively than rural ones.
- 2 The UTNP share is positively correlated with the number of UTNP payers. This observation should not be very surprising because the higher the number of taxpayers under the employed flat rate approach, the higher the proceeds from the revenue source and its share.
- 3 Equalization grants discourage local activity aimed at attracting potential UTNP payers. Such conclusion goes in line with observations carried out by Egger, Koetenbueger and Smart (2007) who conducted a study on how equalization grants affect local business tax rates in Lower Saxony, Germany. They found out that increases in local business tax rates would reduce the respective tax base, which in turn would increase a local government's entitlement to equalization grant. Therefore, local governments may deliberately decrease the local tax base by increasing the tax burden with a view to obtaining larger funds from the higher-level government. This phenomenon could be better understood if we take into account the equalization approach employed in Ukraine: according to the Budget Code and Methodology on Calculating the Equalization Donation Amount (Kabinet Ministriv Ukrayiny, 2003), the UTNP proceeds are included in the revenue basket used for calculating the equalization grant amount. So, if the amount of UTNP is larger due to lower rates, the amount of equalization grant for the next year must be lower. Taking into account the fact that equalization grants account for a significant share of revenues in both regions, the local governments try to minimize the risk of lowering transfers and prefer not to pursue an aggressive fiscal policy by enlarging the number of taxpayers because it will make them fiscally worse-off. This issue of disincentive effects of the transfer policy was emphasized by many Ukrainian researchers.¹²
- 4 Increasing the effective UTNP rate reduces the number of taxpayers. Unfortunately, this correlation is not very significant statistically. Otherwise it could be a very important observation which would mean that the local tax burden matters when small businesses make decisions on business location. It could also be further interpreted in the following way: local governments can, through their tax rate decisions, attract bigger or smaller numbers of small businesses. Nevertheless, as concerns UTNP, there seems to be some room for horizontal tax competition among jurisdictions.

The last statement should also be weighed against the realities of the Ukrainian transition economy. The fact is that many small entrepreneurs are doing business illegally, without registration and paying taxes, even though the UTNP rates are relatively low compared with the world-wide experience. Pursuing seasonal activities, many private entrepreneurs are not willing to pay a fixed amount of tax all year long. That is why we could interpret this correlation as the presence of potential *competition among local governments*

¹² See Ohon (2006) and Lunina (2006).

concerning the legalization of small business units. If we make a reasonable assumption that net returns in a small-scale business do not differ much from the average disposable income per capita, then we can understand why local governments try to keep the UTNP rate low in order not to discourage legal entrepreneurial activity: in 2006, average annual disposable income per capita was 6,577 UAH in the Ivano-Frankivsk region, and 7,145 UAH in the Vinnitsa region (Ministerstvo Finansiv Ukrainy 2007). Imposing UTNP at a maximum rate would be equivalent to 34-36 per cent of effective PIT rate in any region which is very high. Therefore, we can state the following: as such, local fiscal policy with regard to UTNP could not deeply affect the number of legally operating incumbents, but it could affect the number of businesses officially registered as taxpayers.

It turned out that a low value of R^2 for the merged sample was generated by a low correlation between dependent and independent variables for rural localities. That is why we had reasons to test a regression for the more homogenous sample of urban localities.

The linear multiple regression in Model 2 (see Table 4) showed a much higher value of R^2 , which means that the correlations are more reliable in comparison to the previous one, and demonstrated quite a significant negative correlation between the number of taxpayers and the effective UTNP rate. Accordingly, a 10 UAH rise in the effective UTNP rate will generate a decrease in the number of small business units registered in a jurisdiction by at least 4.

Table 4 Regression results for the dependent variable “number of unified small business tax for natural persons payers per 10,000 of population in urban localities”

	Coefficients	Standard error	t-statistics
Y-intercept	476.013	101.665	4.594
Population	0.0004	0.000	2.013
UTNP share in local revenues	-110.787	492.121	-0.225
Equalization grant share in local revenues	0.716	1.500	0.477
Effective UTNP rate (UAH <i>per annum</i>)	-0.437	0.193	-2.264
Standard error	56.006	X	X
N	11	X	X
R^2	0.668	X	X

Source: authors' calculation

So we can present the results in the following way: for urban localities, a negative reaction of the number of registered small businesses to an increase in UTNP rates is observed. With a low number of observations in a sample, we can make a cautious guess: local decision-making on small business taxation could have an impact on the number of registered taxpayers in urban areas. At least we could think that the evidence of horizontal fiscal competition is much stronger here as compared to the merged sample; or, in other

words, urban localities have stronger incentives to use tax rate variation as an instrument of own revenue mobilization.

The other regression coefficients also showed a stronger interdependence between dependent and independent variables, especially for the “effective UTNP rate” and “equalization grant share in local revenues”. It must be noted that both variables appeared to be much more influential in case of urban localities in comparison to the whole sample.

As concerns the “equalization grant share” variable, the reason for such a difference between the value of the regression coefficient and the one presented in the previous model (Table 3) could be a much higher dependence of rural localities (which comprise about 80 per cent of the observed units) on equalization grants and lower shares of UTNP proceeds in their budgets: the grant share here is about 85-90 per cent. By contrast, it is only 30-40 per cent with much higher differentiation among individual territorial units for urban localities; the average UTNP share is about three per cent in rural localities, but about five per cent in urban ones. So, in the whole sample, the properties of rural local governments offset those of the urban ones. The positive sign of the correlation coefficient for urban communities can be interpreted in the following way: the larger quantity of public services provided by urban communities funded by equalization grants offsets the disadvantages of being heavily taxed. This fact suggests that vertical fiscal competition interacts with the horizontal one and could be used as a means of attracting new taxpayers.

The fact of small businesses’ reaction to the UTNP rate variation leaves open the question on whether the local governments actually use the tax instrument in question in order to attract more taxpayers. This question could be answered after a more detailed analysis with more comprehensive data sets involved. The time series analysis would give some useful insights into this matter.

The low value of R^2 in the case of a merged set of observations could signal that there is something wrong with the local government’s fiscal behavior. We can guess that economic rationale for such behavior could be the fact that UT proceeds are allocated to the revenue basket intended for funding delegated functions. Another fact contributing to such behavior is the sharing of tax proceeds. To sum up, the local governments feel that there is no need to care much about the UTNP administration, because there are much more attractive and cost-effective options. The statement could be supported by an estimation of UTNP revenue potential. E.g. in the Ivano-Frankivsk region, according to the local property census 2007, there are about 6,000 tractors and 9,000 horses in the private possession. It is no secret that these means of production are often used to render services against payment to other private persons to satisfy their agricultural and transportation needs, but as a matter of fact 71 per cent of tractor owners and 93 per cent of horse owners are not registered as small entrepreneurs and do not pay any taxes at all. Should the local authorities manage to have all the tractor and horse owners registered and pay UTNP at the minimum rate (UAH 240 a year), which would really not be not burdensome for micro entrepreneurs, this would produce about UAH 3 million of additional income for local governments in rural areas which accounts for about 25 per cent of the current UT proceeds of rural councils. And this is just a small example of a missed opportunity to generate revenues from UTNP.

Generally speaking, both regressions show quite a low significance of some coefficients and low reliability of predictions, especially in the case of the second one, due to the low number of observations. That is why the predictions of both models must be taken with high caution and not overstated. Based on them, we cannot state that the Ukrainian local finance system really gives rise to tax competition; we can only say that, under the current conditions, there are some prerequisites for the emergence of tax competition. In this case, an estimation of the factors which control the tax competition variable could be very useful to establish whether horizontal tax competition would encourage or reduce the public sector efficiency. From our perspective, the institutional changes could be the most influential ones here, but they are difficult to capture in econometric analysis.

We can surmise that the allocation of the UTNP to the basket of revenues that are not taken into account for calculating the amount of equalization grant could change the fiscal behavior of local governments. It could make them more aggressive in maintaining the taxpayers' discipline and increase propensity to use tax rates for attracting taxpayers and hence expanding their own tax base because in this case it will not affect the amount of equalization grant received. If this shift in local revenue composition is supported by expanding the rate schedule (we think that the current schedule should be revised due to current economic conditions, especially given the cumulative inflation rate of over 60 per cent since 1998), we can expect much stronger manifestations of fiscal competition with regard to UTNP.

According to some research papers concerning Russian municipalities (Bestremyannaya, 2001), one could expect a more substantial role of fiscal competition under the following conditions: greater responsibility for public services, greater autonomy in revenue raising and greater accountability of local authorities. The same could be true especially for the Ukrainian local governments which seem to be set to gain more autonomy in the nearest future, as suggested by the recent developments in the Ukrainian public sector: the central government, being unable to prevent a decline in local revenues and deterioration of locally operated public service infrastructure as a result of global recession which sharply hit the Ukrainian economy in 2008, seems now to be more eager to unleash local fiscal initiatives through granting greater fiscal autonomy to territorial communities.

6 Conclusion

The Ukrainian local revenue system does not give much room for horizontal fiscal competition among localities; this finding is not surprising for a country with a highly centralized public sector. Nowadays, as the local property tax is still not implemented, the best possible area for tax competition is the UTNP, which is structured in a way that allows local governments to use this revenue instrument for attracting a greater number of taxpayers and, consequently, generate more revenue for funding the expenditures on local delivery of public goods. This conclusion stems from the fact that local governments are granted some discretion in setting tax rates. On the other hand, this possibility is weakened by a low sharing rate applied to this revenue source (which contradicts the right of taking decisions on the rates) and high local government dependence on state equalization grants.

Following the theoretical approaches summed up in Section 2, we see that tax competition in Ukraine is heavily limited by the central government which neglects the issue of voluntary tax coordination at the local level. That is why its fiscal externalities are of a small scale and they are offset by equalization grants serving as a major source of funding for communities, especially in rural areas. The issue of accountability does not play a significant role because of weak local institutions and high shares of external revenues in local governments' budgets. For the local governments, vertical fiscal competition, especially as concerns state grants, seems to be more important because it results in much more substantial revenue gains.

Despite all these "buts", there is a negative correlation between the number of small business units registered as taxpayers and the effective UTNP rate found, which is a clear evidence of competition among jurisdictions, aiming at attracting a greater number of taxpayers. In this competition, urban locations are likely to have an advantage over the rural ones. The regression results obtained must be interpreted very cautiously due to the problem of the number of observations, but, nevertheless, they give some grounds for discussion about whether such competition could not burst in the nearest future when institutional changes are introduced into the current intergovernmental structure.

We suppose that such competition could become noticeable in case the national government decides to widen the gap between the minimum and maximum UTNP rates (some intentions to do so in the face of the deepening recession, and the consequential decline in revenues have been announced). At the moment, the floor tax rate of 20 UAH (about 2 Euro), or even the ceiling rate of 200 UAH (20 Euro) per month approved in 1998 seems ridiculous, taking into account the fact that many small businesses earn quite substantial amounts of money. Another factor which could contribute to this issue is the re-shifting of functions in favor of the basic-level local governments and making UTNP an own revenue source, thus excluding it from the revenue sources taken into account for the calculation of equalization grants and from the sharing procedure. This kind of policy would raise the motivation of local governments for expanding the revenue base and strengthen their desire to compete for taxpayers. A new real opportunity for competition could arise with the adoption of legislation on local property taxation, which would grant significant tax rate discretion to the local governments. The relevant legal acts are still on the agenda of the Ukrainian Parliament.

How close are these developments to reality? Actually, almost all the leading political forces in Ukraine support the idea of strong local self-government and, consequently, of transferring fiscal authority to lower government levels. Sooner or later the Constitution will be amended to allow for these changes¹³ and local governments will have larger fiscal discretion. Then we could expect much sharper competition for taxpayers among jurisdictions. Along with changes in administrative and territorial composition (the size of territorial communities must be increased to 5,000 inhabitants instead of the current 500 on average in rural areas), the local dependence on equalization grants will be minimized, which will also contribute to fiscal competition. In order to minimize harmful manifesta-

¹³ Until the end of 2008, there existed several constitutional draft laws advocated by different political parties. It is highly possible that in 2009, the legislators will reach a consensus and, as a result, the decentralization process will really start.

tions of tax competition and possible economic distortions, the central government has to retain control over defining the tax base and capping the UTNP rates along with introducing specific ceiling rates for different types of economic activities and facilitating the setup of local community institutions.

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