

Financial rewards for electronic tax declarations: efficient and fair?

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Abstract: Tax-on-web is the Belgian system for electronic tax declaration. It implies cost savings for the tax-paying citizen and for the tax administration. This paper examines to what extent financial rewards for tax-on-web users are acceptable from, both from the perspective of economic efficiency and social fairness.

Key-Words: tax-on-web, paper tax declaration, rewarding e-government applications, Belgian tax law

1 Introduction

The case for public services to work more efficient, more effective and in a more customers-oriented way is growing stronger and stronger.

The quality of public service delivery was -and still is- seen as problematic. Because the public sector isn't driven by profit-maximization, it is not always obvious to implement modern management techniques and information technology.

However, modern technology can be an excellent instrument to ameliorate the public service. This paper investigates how to reach this goal by implementing an electronic tax declaration system.

2 The Belgian tax-on-web-system

In order to simplify the administrative formalities and make tax declaration more transparent, for not only citizens but also enterprises, the Belgian government introduced the possibility of income tax declaration on the web. In its first year the government received 57.688 electronic tax declarations. Today, only two years later, 353.630 people and enterprises did their declaration electronically. This

performance remains however far behind the European e-tax leader Spain (14.6%) and Canada (40%) [1].

2.1 Advantages

The advantages of tax-on-web for the tax-payer are multifarious. It simplifies and speeds up the procedure drastically. The tax-payer doesn't need to go to the tax administration. It decreases or even excludes the probability that faults are made. The program immediately calculates the tax return for the tax-payer.

2.2 Difficulties

The main difficulty experienced when introducing communication and information technology seems to be a mentality question. In particular the perception of insecurity shouldn't be underestimated, although this fear is irrational. It is a given fact that the application is secure. Tax-on-web in Belgium is secured by a unique combination of several codes and identity data. One could argue in fact that the confidentiality of a paper tax declaration is much less secured. It remains however surprisingly difficult to convince citizens of this fact.

Another aspect off course is the infrastructure at the disposition of the tax-paying citizens. The success of e-government-applications depends largely on the penetration of computer hardware and internet access. This is still a problem in Belgium where computer penetration is only 38.5% [2].

A policy argument in favour of setting up an electronic tax declaration could be that it stimulates people to acquire a computer and to learn to work with it. This is very important in a knowledge based economy. The Canadian example proves that some people feel the excess value of a quick settlement of tax obligations is more important than the cost of the acquisition of the software.

3 The desirability of incentives for tax-on-web

Having sketched the advantages for the tax-paying citizen, we should estimate costs and benefits for the tax administration itself.

3.1 Costs and benefits of a generally established electronic declaration

The number of Belgian citizens subject to income tax is approximately 4.000.000. According to the Finance minister, Mr. Didier Reynders, it takes no less than 6000 full time public servants to deal with paper tax declarations [3]. It is clear that government could save a lot if all tax declarations were done electronically.

This is confirmed by empirical evidence in other countries. The Irish “Revenue Online Service” suggests that government saves up to 33% if tax declarations are done electronically instead of manually [4]. In Norway where electronic tax declarations are generally adopted, there was an annual saving of 400 million Norwegian Kroner [5].

Off course these savings can only be realized if all citizens use tax-on-web. The question how much savings there can be realized if the possibility of manual tax declarations is left, is more complex. It could be possible that the co-existing of both systems leads to extra costs.

The cost structure of a manual and an electronic declaration is different as is shown in figure 1.

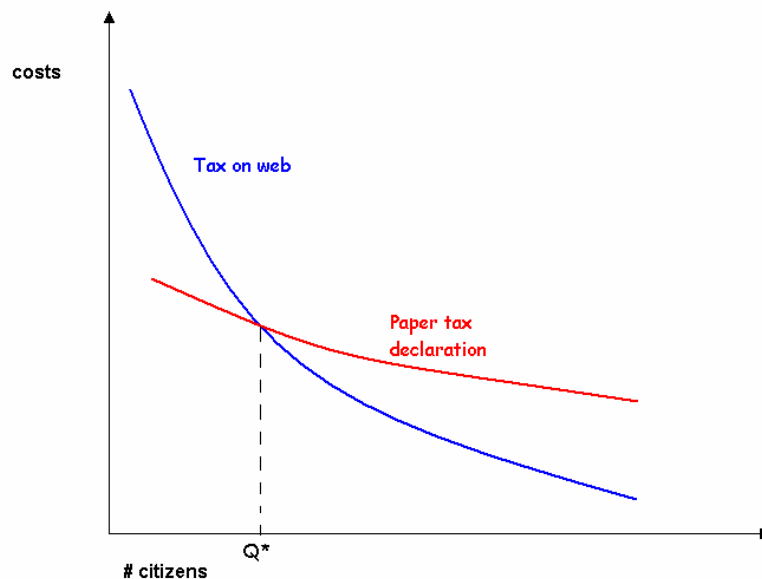


Figure 1

The red curve shows that costs of paper tax declarations are for the largest part variable. The main cost is the wage of public servants and the cost of their offices and equipment. The number of public servants increases if the number of declarations increases. The fixed costs are very low.

The blue curve shows that setting up a possibility for tax-on-web has a substantially higher fixed cost. This consists mainly of the developing of the software and the costs of the hardware. Once the system is fully operational the marginal cost of extra declarations is much lower than the marginal cost of an extra paper declaration.

If Q^* citizens opt for an electronic declaration. Total costs of an electronic and a manual tax declaration per person are equal.

3.2 Costs and benefits of maintaining two systems

Figure 1 suggests that tax-on-web is more expensive if less than Q^* people make use of it. One could conclude that tax-on-web should be considered as an extra and more expensive service towards the e-connected citizen. As we examine the situation further, we will discover that this is a false conclusion.

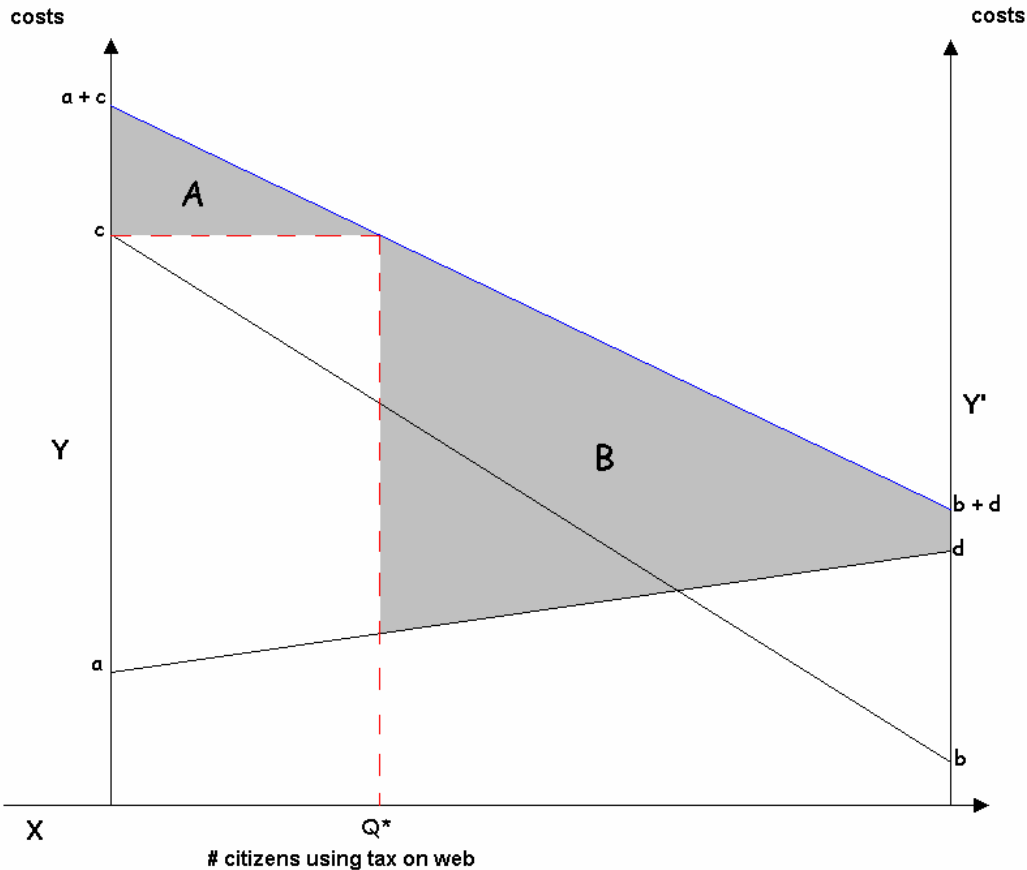


Figure 2

If half of the tax-paying population does not dispose of an internet connection, a mandatory tax-on-web-system is not an issue. A paper declaration should remain possible. Figure 2 shows the cost curves if

both systems exist next to each other. It is obvious that giving citizens the choice between two systems should always be less efficient than having one system, because

government needs to bear a fixed cost twice.

The X-axis shows the number of citizens using tax on web. The Y-axis shows the total costs of processing tax declarations.

We assume that the fixed costs of tax-on-web are a , the lower fixed costs of processing paper tax declarations is represented by b . The cost to process tax declarations if all citizens used tax-on-web is represented by d . It is c if all citizens do it manually. The blue line between $(a + c)$ and $(b + d)$ shows the total costs of having both systems operational for any number of citizens using tax-on-web. The slope of the blue line shows the marginal cost of an extra citizen using a paper tax declaration instead of an electronic.

If Q^* citizens make use of tax on web, the cost is c , which is exactly the same as in the situation before tax on web was set up.

The grey zones show the waste of resources for maintaining the less efficient system. Zone A shows the resources that are wasted by setting up a tax on web system if it is not used by enough citizens. Zone B shows the loss due to people sticking to the paper declaration if tax on web is generally established.

Even if citizens using tax-on-web turn out to be more costly, there is a marginal benefit for each extra tax-on-web user. It would of course be a very bad idea to make tax-on-web-users pay for tax-on-web if the system turns out to be more costly due to the low number of people using it. It would be contra-productive since it would only deter tax-payers from using tax-on-web, which would make the total costs even higher.

3.3 The net costs and benefits of incentives to use tax-on-web

If government decides to set up an electronic tax declaration system and has

made the necessary cost for it, it should give people incentives for doing an electronic tax declaration, because of the lower marginal costs. In France government has decided to give people a tax bonus of 20 euro if they do their declaration electronically [6]. The Belgian Senate is currently considering to implement a similar idea in Belgium [7].

It has been argued that a reward for electronic declarations is socially unfair since it disadvantages people who don't have internet access, since it can reasonably be assumed that the e-connected tax-payers are on average wealthier than others. According to this argument the poor would cross-subsidize the rich. This however is false if the reward corresponds to a real saving the government has done. Under which conditions this is the case is shown in figure 3.

A tax bonus for every tax-on-web declaration leads to an increase of the marginal costs for every tax declaration. Therefore the cost curve would be shifted upwards, as shown by the red curve in figure 3. By consequence the total costs and thus the number Q^* would also be increased. We can state that no cross subsidization occurs as long as the number of people using tax on web is equal to or higher than Q^* .

The statement that the poor cross-subsidize the wealthy could be correct, can be correct if a tax bonus is given in a situation where the level Q^* is not reached. If it is there occurs no cross-subsidization at all. In that case the policy is both economically efficient and socially fair.

The blue curves show what would happen if a reward would be given equal to the marginal cost of a paper declaration. Total costs would be constant. The tax system would always be more expensive than if everybody would hand in a manual declaration. This would be highly undesirable.

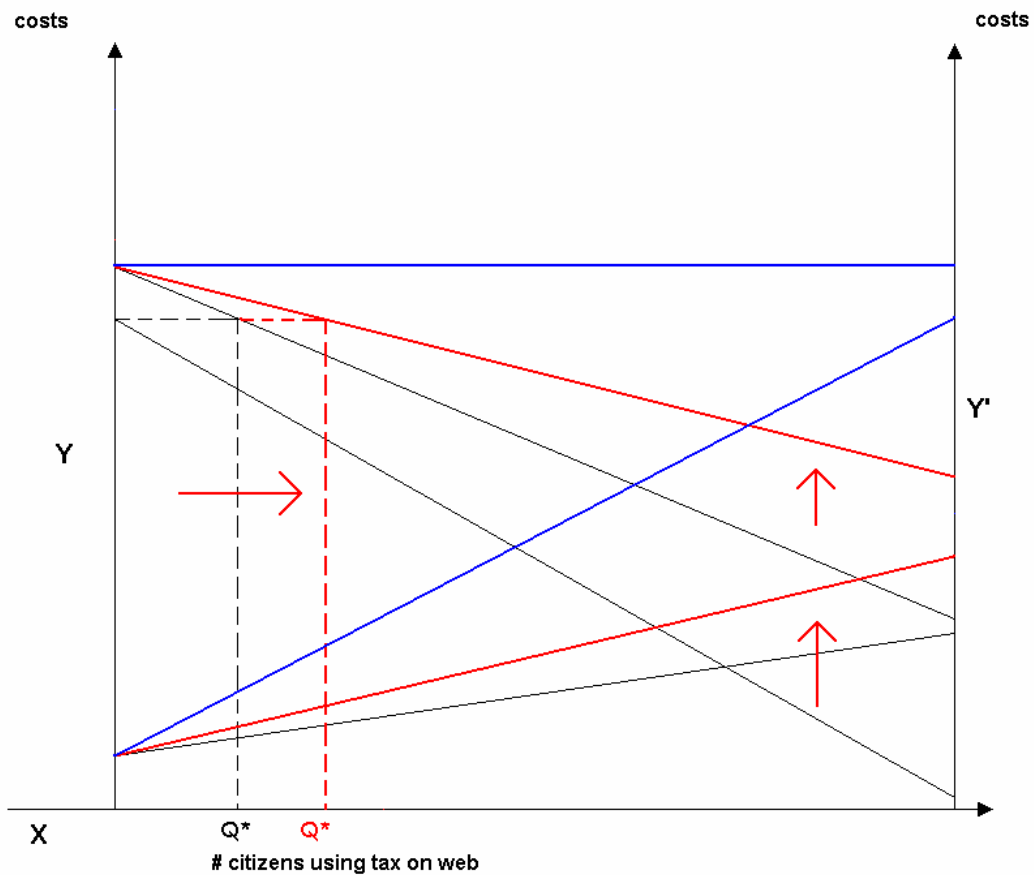


Figure 3

A bonus equal which leads to inefficiency according to this analysis may be considered if the ultimate goal is to get tax-on-web generally established. This can be considered as an investment for the future. The idea behind should be to abolish the possibility to hand in a manual tax declaration. If everybody uses tax-on-web there is no need anymore for a tax bonus.

4 Conclusion

Tax-on-web has a lot of advantages for the tax-paying citizen. It also leads to savings with the tax administration. If not all citizens have access to the internet or if not all citizens are willing to use tax-on-web, it is efficient to reward people who do use tax-on-web. Government should be careful however in estimating the optimal bonus.

If the tax bonus is too high then there might occur a non-justified tax advantage for the wealthier share of tax-payers, financed by the less wealthy. The optimal tax bonus is lower than the marginal cost of a manual tax declaration.

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