The Journal of Socio-Economics 41 (2012) 468–475

Contents lists available at ScienceDirect

The Journal of Socio-Economics

journal homepage: www.elsevier.com/locate/soceco

The contribution of behavioral economics to tax reform in the United Kingdom

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ARTICLE INFO

Article history:
Received 12 March 2010
Received in revised form 21 June 2011
Accepted 14 July 2011

JEL classification:
H21
H24

Keywords:
Behavioral economics
Tax reform
Poll tax
Valued added tax

ABSTRACT

This paper examines the contribution of behavioral economics to tax reform by examining two major reforms in the United Kingdom which may be seen as natural experiments – the reform of local taxation and the introduction of value added tax. The case for both was based strongly on mainstream economic analysis but one was a failure and the other a success. The introduction of the local community charge, or 'poll tax' as it became known, was such a failure that not only did it have to be repealed but it was also a factor in the downfall of Mrs. Margaret Thatcher as Prime Minister. The introduction of value added tax took more account of behavioral factors and was successful. The paper concludes that a wider approach based on behavioral as well as mainstream economics may have considerable advantages in developing tax policy.

1. Introduction

As the contribution of behavioral economics becomes more widely recognized, one area that could usefully be further explored is its contribution to the development of successful tax reform. To this end, it is helpful to be clear about how behavioral economics differs from more traditional contributions. In his paper 'What is Behavioral Economics?' in this journal Tomer (2007) identified six key dimensions along which behavioral economics differed from mainstream economics in relation to science. Although these dimensions were concerned with characterizing behavioral economics and its different strands, they also shed light on the relative merits of behavioral and mainstream approaches to applied matters such as tax reform. This is particularly interesting because there is a paradox in the conduct of much tax reform. The tax system is used to influence behavior – for example encouraging certain activities such as saving. Nevertheless, insufficient account is sometimes taken of behavioral factors in the development and implementation of tax reforms themselves.

In his Presidential Address to the British Association for the Advancement of Science, Huxley (1870) said that the great tragedy of science was 'the slaying of a beautiful hypothesis by an ugly fact'. In economics the fact may be behavioral. Conventional economic analysis provides many important insights into designing relevant policy measures and can generate elegant possible solutions. However, a tax policy developed on the basis of mainstream economics alone may not take appropriate account of all the important factors – ugly or not – of the complex and changing requirements of successful tax reform (James and Edwards, 2008). Behavioral economics questions mainstream assumptions such as individuals are always perfectly rational and operate only in their own self-interest. In his classic paper on the methodology of positive economics, Friedman (1953) argued that the 'assumptions' on which a theory is based should not be judged on their 'realism' – they must necessarily abstract from the complexities of everyday life – but how well the resulting economic hypothesis works. This approach has been subject to important discussion – see for example Altman (2004) – and it has been frequently argued that basic assumptions of mainstream economics deviate consistently from reality in significant ways. DellaVigna (2009) summarized deviations from the standard model as non-standard preferences, non-standard beliefs and non-standard decision-making. Furthermore, there is considerable evidence regarding specific areas such as the importance individuals place on fairness in taxation, the endowment effect, framing of decisions, limited attention, loss aversion and mental accounting. As Congdon et al. (2009: 375) put it 'the implications of behavioral economics . . . for public policy, including tax policy, have yet to be systematically explored, and . . . this oversight leads to both mistaken policy and missed opportunity'.

Behavioral economics has a particular role to play in policy areas such as developing tax reform. Meade (1979: 9) once wrote 'I am an economist and have tried to give you an economic solution for an economic problem. Please do not argue that I am a rotten economist on the grounds that the economic solution is politically

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doi:10.1016/j.socec.2011.07.004

unacceptable. The really difficult part of our present problem *is* political'. Such is the case with tax reform. Mainstream economics provides an essential contribution to the analysis of economic issues and in some areas it may be sufficient to generate unambiguous improvements to the tax system, for example in some technical tax matters relating to corporate taxation. However, behavioral economics improves the realism of the psychological assumptions on which economic theory is based and therefore may be particularly important where changes potentially affect large numbers of individual taxpayers. It may therefore be advantageous in anticipating taxpayers' responses and in designing a reform that is sufficiently politically acceptable in order to succeed.

This paper compares two substantial tax reforms in the UK – natural experiments in many ways – to explore these issues. In terms of tax reform, the definition of success used here is that the reform largely achieved its objectives and the definition of failure is that it did not. The cases for both reforms were based on strong theoretical arguments along the lines of mainstream economics. However such a basis for change was insufficient to achieve success. One of these reforms offered an elegant theoretical solution to a perceived problem but did not take sufficient account of behavioral factors and failed. The other reform did take account of behavioral factors and succeeded. The former of these changes concerned local taxation and the intention was to influence voter behavior by linking local public expenditure to local tax levels. This was done by replacing the local property tax which was levied directly only on one householder in each home with a tax whereby all voters paid towards local public expenditure. This was officially named the community charge but was quickly dubbed the poll tax. The other reform was the replacement of two existing taxes with value added tax on the basis that a broadly based tax would have limited distortionary effects on consumer expenditure and would be an important step towards European tax harmonization. The economic arguments for introducing a value added tax are strong enough for it also to be seriously considered, for example by Graetz (2007), as a beneficial tax reform for the United States.

In many ways chance was a major factor in both outcomes. A more systematic approach to tax reform would take account both of conventional economic analysis and behavioral factors as well as the complex process of developing successful tax policy. Section 2 raises fundamental difficulties involved in producing unambiguous proposals for improvement based on mainstream economic analysis alone. The theory of the second best, optimal tax literature and public choice analysis indicate limitations of such an approach. Section 3 examines the complex process of tax reform and that it is a dynamic process, not just an exercise in comparative statics. Successful tax reform must therefore take account not only of behavioral factors but also how they are likely to change over time and how they will be affected by the reform itself. Section 4 describes the unsuccessful change to local government taxation and Section 5 the introduction and successful establishment of value added tax. Finally Section 6 draws some conclusions.

2. Economics and behavioral economics

Although mainstream economics provides a powerful way of analyzing economic phenomena, there have been several important developments that have addressed the limitations of the mainstream approach – particularly the general theory of the second best, optimal taxation and public choice theory and these will be examined in turn.

2.1. The theory of the second best

The theory of the second best presents a fundamental insight into the complexity of developing tax policy and implementing tax reform successfully. In their seminal contribution, Lipsey and Lancaster (1956: 12) stated that it 'is *not* true that a situation in which more, but not all, of the optimum conditions are fulfilled is necessarily, or is even likely to be, superior to a situation in which fewer are fulfilled'. Indeed the general theory of the second best holds that if one of the Paretian optima cannot be achieved then a second best optimum can be reached by departing from all the other optimum conditions. Furthermore, nothing can be said in general about the direction or the magnitude of the secondary deviations from optimum conditions made necessary by the inability to achieve the original optimum condition. Lipsey and Lancaster illustrate this with a tax example. They suppose that a tax is imposed on one good only and the revenue raised is returned as a gift to the purchasers so the only result is to distort relative prices. Given this distortion, the only general thing that can be said is that a second best optimum could only be achieved by a system of taxes on other goods and services, some of which may be more than, some less than, the original tax and in some cases a subsidy might be required. Fifty years later Lipsey (1997: 362) stressed the need to understand 'the cautionary warning from second best theory that any policy may have unexpected and undesirable consequences in apparently unrelated parts of the economy that need to be watched for and mitigated where necessary'.

The analysis of the 'second best' therefore raises the possibility that tax reforms which seem to be clearly beneficial may not be when all the relevant factors, including behavioral factors, are considered. Indeed in a wider context, the overall disadvantages of a reform may substantially outweigh the more obvious benefits of the initial change, but this would not be clear from a simple analysis. In terms of the present comparison, a reform such as the poll tax, which was based on a narrow analysis and without an appropriate regard to behavioral factors, may have been less likely to achieve an overall improvement than the VAT reform which did take into account a range of important behavioral issues.

2.2. Optimal taxation

As Boadway (1997: 756) points out, in ushering in the optimal tax revolution, Diamond and Mirrlees (1971) were trying to 'provide a methodology for calculating precise policy rules in second best (distorted) economies'. The optimal taxation approach widens the analysis of taxation to include equity as well as efficiency aspects. It therefore includes the question of how progressive a tax system should be as well as the rates of different taxes. However it remains firmly based in the mainstream economic approach and has faced severe difficulties in modeling fairness and including significant variables.

Heady (1993: 15) surveyed the optimal taxation literature specifically 'attempting to answer the question of whether, and to what extent, the literature on optimal taxation can provide guidance in the practical determination of tax policy'. He identified a number of limitations in the use of the optimal taxation literature in this way, such as not including a range of factors, but concluded that optimal taxation can help in some but not all areas of tax policy. The limitations of optimal taxation with respect to policy is a long term theme. Frey (1976: 32) pointed out that optimal taxation will only be introduced if it is acceptable within the political–economic process – a view relevant to the present examination of the poll tax and VAT reforms. Feldstein (1977) criticized the literature for concentrating too much on the features of the optimum and too little on the process of attaining it: a particular aspect that contributed to the failure of the poll tax as discussed below. Alm (1996) suggested that previous attempts to derive an 'optimal tax system' were largely irrelevant to practical tax design since they ignored a range of considerations involving fiscal and social institutions.