The flypaper effect

Introduction

The flypaper effect examines the impact of intergovernmental grants on local governments' spending behaviour. Where one level of government is unable to provide public goods and services for another level of government it transfersmoneyto that government tofinanceits own provision. The transfer of funds is usually from a higher level of government to lower levels. These intergovernmental grants are flows of money from federal or central government to local state governments. These grants change the income distribution and spending patterns of the local government. The flypaper effect is the concept of money from the central government to the local authorities sticking where it hits. Grants to the local government will be spent on goods and services in the local public economy and not be used somewhere else. When the local government receives a grant, it can choose to either spend it on increasing provision of public goods without increasing. Or cut taxes of its residents which increases their incomes. The effect the grant and tax cuts will have on local spending is dependent on the income elasticity of demand.

Theory predicts that the effect of a lump sum grant on local spending will be equivalent to the effect of an increase in income from distributing the grant directly to local residents or indirectly through tax cuts. However this theory has been disconfirmed by a number of empirical studies which is why the flypaper effect is considered as an anomaly inconsistent with economic theory[3]. A study by Gramlich (1977) found evidence which goes against the occurrence of this America. The studies show that the grant induces greater local spending than an equivalent cut in taxes does which is

considered to be an anomaly. A 100$ increase in citizens' income from a cut in taxes raises local governments spending by $5-$10, while lump sum grant on the other hand raises spending by $40-100$. The grant stimulates higher local spending than an equivalent increase in income from a cut in taxes would. Spending is stimulated by more than theory predicts. A number of researchers[4] have carried out studies to estimate the effect additional grants will have on local government spending. Even though all these studies were carried out in different ways they all report some degree of flypaper effects. The results from these studies show that an additional dollar increase in the grant can increases local government spending by anywhere around 25 to 106% of the additional dollar.

Studies have been conducted to estimate the actual effect of different types of grants to the local governments. The magnitude of the flypaper effect will vary depending on the nature of the grant received as this influences the spending pattern of the local government. An open-ended matching grant which is a form of subsidy given to the local government has a larger effect on local spending as it induces both an income and substitution; as compared to an unconditional grant which the local government can spend grant any way it chooses to, or specific grants which are given with strings attached such as having to spend the grant on specific programmes such as oneducation. These have a smaller increase on local governments on spending. General and specific lump sum grants have the same effects on local government spending as they induce only an income effect. A lump sum grant also results in a smaller increase in local spending than an equivalent matching grant would. Where there are misspecifications on the

type of grant received, this can create flypaper. Moffitt (1984) proved that taking the type of grant into consideration when estimating the flypaper effects avoids creating an upward bias and could eliminate the flypaper effect.

Different explanations have been given as to why we observe these flypaper effects. One argument that has been made is that it is due to fiscal illusion. Some sources of government revenue are unobserved or partially unobserved by citizens who benefit when incomes from these sources are spent and increase their support for the government. Because these income sources are unknown to the citizens, they do not have to pay higher taxes or forego tax cuts for the increased expenditure on public goods and services to be financed. The government will have an incentive to increase spending of revenue from these unobserved sources which are subject to fiscal illusion to increase their support. This allows the local government to spend a higher amounts of grants resulting in the flypaper effect of money sticking where it hits.

Oates’s model is based on the assumption of fiscal illusion with lack of full information on the part of citizens. When the local government receives a grant, this could be passed onto residents to increase incomes who increase their spending on public goods. The local government could instead decide to supply the good at a lower price which results in a greater increase in spending than that which results from the increased income. Residents are made to believe that the cost of the service is less that its actual cost. This makes the effects of the lump-sum grant is greater than that from increased incomes. The magnitude of the flypaper effect depends on the relative sizes

of the income and price elasticities of demand. Oates estimation of these elasticities results in flypaper effects on local spending as an increase in income causes a 0. 1 marginal increase and an increase in intergovernmental grant leads to a 0. 4 increase. Because of information asymmetry citizens may confuse marginal and average price effects of grants which results in flypaper effects. The use of average instead of marginal prices can create an illusion that results in flypaper effects.

The role of bureaucracy has also been given as another explanation for the flypaper effect. Self interested bureaucrats and politicians who aim to maximise the size of their budget are not acting it the interests the local citizens. However there is information asymmetry where the bureaucrats have more information than those in power which they take advantage on when requesting a budget to finance public expenditure. This allows the bureaucrats to spend additional grants received from the central government. To maximise the budget size they request a budget where the cost of provision is equal to benefit of consumption to residents. A specific matching grant to the local government reduces the cost of provision and the cost (price) of the good or service to citizens. According to King (1984) the increase in the bureau’s budget is greater than the amount of grant. For this to explain the flypaper effect the increase in income causes a smaller increase in the budget, and the grant should have a higher effect on local spending than the increase in income does. The Romer-Rosenthal model is built in an attempt to explain the role of bureaucrats in the occurrence of flypaper effects where local government spending may differ from what the traditional model predicts (increase in income and a grant having the same

effect on spending). In their model increased income leaves local spending levels unchanged. This explains the flypaper effect as an equivalent increase in residents income will increase size of the budget by less than increased spending does. The flypaper effect is seen as an outcome of politics.

The econometrics used in the estimations of the flypaper effect is given another reason as to why we observe the effects. Some omitted variables may result in an upward bias of the effect on a grant on local spending. It is argued that altering the variables and parameters used in the estimations should eliminate these effects. Becker (1996) substituted the commonly used linear equation with the logarithmic form which eliminates the evidence of flypaper effects. Other studies conducted altering these estimations still showed evidence of some degree of flypaper effects. Hamilton (1983) explained a significant proportion of the flypaper effects with the inclusion of relevant variables. Wyckoff(1991: 30) study argues that ".. the flypaper effect is unlikely to fade away with the inclusion of these omitted variables". Other relevant variables excluded include local government's savings ration and residents expenditure on private sector alternatives.

Another argument is the misspecification of the expenditure function due to the exclusion of some variables in the estimates of the flypaper effects such as not taking differing characteristics of localities and government behaviour into account. Or the use of inappropriate variables can result in flypaper effects. However even after taking these factor into account studies still showed evidence of flypaper effects. Not taking into account some of the biases created can also result in flypaper effects. Bruce Hamilton (1983) added to this argument that the underestimation of the propensity to spend

on public goods from individual’s private income is also a reason why we observe flypaper effects.

Additional explanations as to why the flypaper effects may occur can be due caution from local authorities. Where the local government is unsure about future intergovernmental grants, they would rather spend grants on local public expenditure rather than on tax cuts which may not occur in future years causing voter discontent.

Because of the high transaction costs from tax changes, the government finds it more efficient to use the grant to increase local expenditure rather than to increase residents income via tax cuts, which could create a flypaper effect.

Conflict between the interests of local citizens and bureaucrats can create flypaper effects. Flypaper effects may occur because the local government believes that maintaining a high level of public expenditure will result in receiving additional grants. With differences in the estimations of the effect of grants from a number of empirical studies, this may suggest that some of these results overestimate the actual size of the flypaper effect. Where there are errors in the empirical studies, the reliability of the existence of flypaper effects and its size becomes biased.

Empirical studies which prove the occurrence of flypaper effects reject the traditional theory of a grant and increased income having the same stimulatory effect on local spending . These empirical results however are flawed due to some statistical or specification error which leads to an overestimation of flypaper effects. There are a number of explanations given

for why we observe flypaper effects, but none of these offer a full explanation of this giving only a part explanation of the flypaper effect. Further research into the flypaper effect is required to give a full explanation on it.

References

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