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Contemporary Local Government**

by

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Abstract

Over the past several decades local government has become increasingly complex. Accordingly, local government policy makers can no longer simply rely on intuitive reasoning in the formulation of policy and are now obliged to draw on conceptual frameworks developed in the social sciences, including economics. One such framework is the market failure paradigm which has previously focussed exclusively on the question of economic efficiency and local public goods in its application to the local government milieu. This paper extends this model to include sources of market failure beyond local public goods. We also apply the theory of market failure to questions of equity as well as efficiency.

Key Words: local government, market failure, local public goods

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THE THEORY OF MARKET FAILURE AND POLICY MAKING IN CONTEMPORARY LOCAL GOVERNMENT

INTRODUCTION

Although constitutional neglect, political opportunism and historical accident have largely shaped the actual roles and functions of contemporary local government, economists have nevertheless created a voluminous theoretical and empirical literature on developing normative principles that should guide the assignment of expenditure, revenue-raising and regulatory responsibilities between the different tiers of government in a multi-unit state. In the present context, two dimensions of this literature are especially significant. Firstly, a massive literature has adopted a 'fiscal federalist' approach which holds that a decentralisation of expenditure functions within a multi-level system of government can generate substantial efficiency gains and enhance equity outcomes (see, for example, Tiebout, 1956; Musgrave, 1969; and Oates, 1968; 1972). According to this view, each tier of a multi-unit government should deliver only those goods and services which benefit citizens directly within its jurisdiction. This follows Oates' (1972, p.34) famous 'correspondence principle' which holds that '...the jurisdiction that determines the level of provision of the public good includes precisely the individuals who consume the good...' so as to '...internalise the benefits from the provision of each good'. Although this model provides useful prescriptions for assigning to different levels of government, it has various limitations. For instance, 'as a practical matter, it is often difficult to define the scope of benefits of a specific service and to determine which specific jurisdiction will reap these benefits' (Dillinger and Fay, 1999:

20). Similarly, even if benefit regions for particular services can be established, each different service may nevertheless have a different geographic benefit region, indicating that a three or even four-tiered federal structure could not accommodate all services satisfactorily (King, 1988: 8-10). Put differently, ‘...given that there are many public goods at all sorts of levels, and given we cannot have any infinite numbers of layers of government, how do we decide at what level to set up government functions’ (Helm and Smith, 1987: 4). Conversely, economies of scale and scope may outweigh, or at least moderate, the advantages of decentralisation. Moreover, efficiency gains attendant upon decentralisation can easily conflict with other distributional and stabilisation objectives of public policy. Bahl and Linn (1992), Ter-Minassian (1997) and others have also pointed to the organisational complexities of federalism and the increasing recognition that ‘...theoretical efficiency gains may be negated in practice [or substantially reduced] by administrative weaknesses at the subnational level...’ (Ter-Minassian, 1997: 22), especially in developing and transforming societies.

Secondly, the market failure paradigm, and its conceptual analogue in the form of the theory of government failure, can provide further useful guidelines to public policymakers on the question of the optimal assignment of economic and other functions between different tiers of government in both federal and unitary societies. These theoretical paradigms, which have proved especially helpful in determining the appropriate economic role for the public sector in a market economy as a whole, as well as in establishing the comparative advantages of the public and private sectors in a system of decentralised economic decision making (see, for instance Wallis and Dollery, 1999), can also assist in defining the optimal economic role for local government.

The application of the market failure paradigm to the problem of the proper roles and functions of local government in a multi-unit system can be justified in at least two ways. Firstly, Adam Smith's famous doctrine of the 'invisible hand', holds that maximising behaviour by individual economic agents in competitive decentralised market relationships will generate a socially optimal use of scarce resources, under certain defined conditions. But following the efforts of Pigou (1920), Bator (1958) and others, an examination of these conditions led to the systematic identification of generic instances where markets 'failed' to produce allocatively efficient results. Examples of market failure along these lines, including externalities, imperfect markets, information asymmetries, and public goods, thus provided an intellectual case for government intervention aimed at achieving allocative efficiency. An equivalent argument can be developed for the use of the market failure paradigm to guide public policymaking in federal societies. According to Tiebout (1956), competition amongst state and local governments in a federal state will not only result in these governments providing local public goods and services efficiently, but also ensure that specific communities with particular tastes in local public goods will be accommodated. In an analogous fashion to 'dollar voting' in the marketplace, local and state government electors as consumers of local public goods can 'vote with their feet' in search of communities that provide their desired mix of local public goods. Local governments thus have an incentive to meet the public good preferences of their constituents. Under certain specific assumptions, the Tiebout model can generate allocatively efficient outcomes in a similar manner to the optimality of private good provision under competitive markets.

However, in general the assumptions necessary to yield allocative efficiency in the Tiebout model do not hold. Quite apart from the potential problems posed by the distributive outcomes of local government competition, market failure may generate sub-optimality in the provision of local public goods and services. For example, externalities can be a pervasive problem at the level of local government. Municipal abattoirs, sewage treatment plants, zoned industrial areas, and many other local authority facilities situated near demarcated boundaries can impose significant negative externalities on people in neighbouring areas. Similarly, migration of individuals between local government and other sub-national jurisdictions can have both benefits, like an increased tax base, as well as costs, such as congestion and pollution. It follows that the market failure paradigm, suitably tailored for the analysis of state and local government conditions, can assist policymakers in determining the appropriate role for local governments.

But an appraisal of the literature on the application of the market failure paradigm to the behaviour of the lower tiers of government in a multi-tiered state demonstrates that this use of the paradigm is almost always restricted to analysis of local public goods to the exclusion of other kinds of market failure. This may simply be a consequence of the fact that economists schooled in the fiscal federalism tradition have become accustomed to limiting their analyses of the expenditure functions of local government to local public goods and services. Perhaps more complex epistemological reasons can be found to account for the circumscribed application of the market failure paradigm in the context of sub-national government. Whatever the apposite explanation may be, the problem itself has been recognised by at least two other commentators. In his examination of the economic functions of 'subcentral authorities', King (1984, p.8) focussed exclusively on

the provision of local public goods, despite explicitly acknowledging the defects of this approach. For example, he observes that while in his exposition ‘...little will be said about subcentral authorities interfering with local monopolies’ even though ‘...it is probable that the arguments for and against subcentral responsibility for intervention in local monopolies are similar to those for and against the provision of local public goods the provision of local public goods, but there is perhaps scope for more research in this area’ (King, 1984: 8). Similarly, King (1984, p.8) notes further that the literature:

...(G)ives little attention to the possibility of a role for subcentral authorities in handling the problems created by externalities. This feature of the literature arises, perhaps, because the correction of externalities is generally seen as a matter of devising taxes, subsidies or controls that will result in production occurring where each item's price equals its marginal social cost, and it may be felt that there is little point in assigning to subcentral authorities a function that allows little scope for discretion. It could be argued, however, that some external effects are of primary concern to local citizens... This line of reasoning might be the chief reason why subcentral authorities are so often given powers over land use and controls over new buildings... It appears, therefore, that there is scope for further theoretical analysis of the case for some decentralisation of this function. It is likely, though, that such analysis would incorporate many of the arguments raised in discussions of the case for decentralising the provision of local public goods.

A similar view has been expressed by Tresch (1981) in his well-known textbook on public finance. For instance, in his discussion of Oates' (1972) definition of the principle of ‘perfect correspondence’, Tresch (1981, p.567) observes that ‘...while he [Oates] talks

only of public goods, the principle clearly applies to any form of externality, or any decreasing cost industry'. Thus, 'a governmental body must be sufficiently large to capture all decreasing costs from a particular decreasing cost service, or to include all citizens affected by a particular externality generating activity, but it need not be any larger' (Tresch,1981: 567).

A second view of the applicability the market failure paradigm to the issue of fiscal federalism in general and local governance in particular places a somewhat different emphasis on the roles of these respective literatures. According to this view, whilst the economic theory of federalism as expounded by Oates (1972) and others is instructive in deciding on the appropriate level of government to deliver different public function, once functions have been assigned to the various tiers of government, the market failure paradigm (and its government failure counterpart) can assist policymakers in determining the optimal manner of delivering these functions. For instance, Helms (1986) identified three ways in which a local authority (or any other level of government) can deal with a purported case of market failure. It can provide (but not produce) some good or service ('the market solution'), it can produce the service in question (the 'interventionist or state *laissez-faire* solution'). The theory of market failure can thus assist in ascertaining whether market failure has indeed occurred and, together with the theory of government failure, can also help policymakers to decide on the optimum form of policy response. This paper adopts this view of the role of the theory of market failure in the analysis of the functions of local government.

The paper itself is divided into two main sections. Section one defines the phenomenon of market failure in both efficiency and equity terms, and then examines the

theory of market failure in the context of local government. By way of conclusion, the second section provides a critical evaluation of this paradigm, most notably the so-called 'nirvana fallacy'.

MARKET FAILURE AND THE FUNCTIONS OF LOCAL GOVERNMENT

In generic terms market failure may be defined as the inability of a market or system of markets to provide goods and services either at all or in an economically optimal manner. It is possible to define market failure more precisely in terms of allocative efficiency. For instance, from a Pigouvian perspective, market failure occurs when marginal social costs do not coincide with marginal social benefits for a particular good or service. Put differently, market failure occurs when market prices do not equate with marginal social costs. This means that market prices as signalling devices will not accurately reflect the full social costs of producing the economic good in question and so producers will either under- or over-produce the good.

Although this way of defining market failure exclusively in terms of allocative efficiency represents the conventional wisdom in standard neoclassical economics, it is regarded by many as far too narrow. Numerous critics have observed that even if markets yield allocatively efficient outcomes, these outcomes may still be unsatisfactory viewed from a wider ethical or distributional perspective. In other words, if we broaden the definition of market failure to include equity as well as efficiency, then the full societal consequences of the operation of markets can be considered. Some commentators have indeed sought to provide a more comprehensive definition of market failure. For example, Charles Wolf (1989: 19-20) has developed a more complete definition of market failure which embraces both efficiency and equity elements; that is, '...markets

may fail to produce economically optimal (efficient) outcomes or socially desirable (equitable) outcomes’.

Needless to add, the introduction of equity or ‘fairness’ issues into economic analysis brings with it complex considerations, not least the fact that a virtually inexhaustible range of plausible ethical standards for evaluating equity exist (Kolm, 1993). Weimer and Vining (1999, p.134) have posed the problem as follows:

As individuals we turn to philosophy, religion, and our moral intuition to help ourselves develop systems of values to guide our assessments. Absent a consensus on the values to be considered and their relative importance when they conflict, our political institutions must unavoidably play a role in selecting the specific values to guide our assessments.

For these and other reasons, economists have (perhaps understandably) been reticent about the specific introduction of ethical yardsticks into economic analysis. But from the pragmatic perspective of real-world policymaking, it seems impossible to avoid equity issues no matter how much they complicate policy formulation. After all, as Wolf (1989, p.30) has observed, ‘most public policy decisions are usually even more concerned with distributional issues (namely, who gets the benefits and who pays the costs) rather than efficiency issues (namely, how large are the benefits and costs)’.

If we concern ourselves exclusively with market failure narrowly defined in terms of allocative efficiency, then it is possible to identify six main types of market failure typically examined in textbooks on the topic; namely, non-competitive markets, externalities, public goods, asymmetric or uncertain information, incomplete or missing markets, and macroeconomic business cycles. Much more comprehensive taxonomies of

market failure have been developed (see, for instance, Weimer and Vining (1999), Table 6.1). Indeed, various cynics have declared that instances of real or perceived market failure are only limited by the imagination of economists!

As we noted earlier, in accordance with the normative prescriptions of the theory of fiscal federalism, the various functions of government should be assigned to the different levels of government by virtue of the correspondence principle. The literature dealing with this question has focussed almost entirely on market failure arising from public goods, even though, as we have seen, no substantive reasons exist to limit the analysis to public goods to the exclusion of other forms of market failure which meet the correspondence principle and should thus be dealt with by local government. Accordingly, we will examine other forms of market failure which are also best addressed by local governments, beginning with market failure narrowly defined in terms of allocative efficiency, and then broadening the discussion to include the wider concept of market failure by adding equity considerations.

Externalities

A ubiquitous form of market failure resides in so-called externalities. Externalities are variously known as external effects, external economies and diseconomies, spillovers and neighbourhood effects. In essence, externalities stem from an interdependence between consumption and/or production activities and result in a divergence between private and social benefits and costs. The problem posed by externalities is that the resource allocation generated by markets will not be efficient because market prices do not reflect the 'full' or social costs involved, and accordingly will not yield socially efficient levels of consumption and production. A myriad of externalities exists in the real world. For

instance, if a manufacturing plant discharges industrial effluent into a lake thereby poisoning fish and harming the local fishing industry, then this would constitute a negative production externality. By contrast, industrial agglomeration along the lines of Silicon Valley represents a positive production externality where separate economic activities reinforce one another and lower production costs. Similarly, drinkers in a pub listening with enjoyment to juke-box music exemplify a positive consumption externality, whereas tired neighbours attempting to sleep adjacent to a riotous late night party signify a negative consumption externality.

In all cases of externalities, the problem can be resolved by equating marginal social costs and benefits with market prices thus obliging consumers and producers to take into consideration the full costs and benefits of their activities. At all levels of government, conventional policy responses to externalities have typically resulted in government intervention. Two generic forms of intervention have usually been adopted. In the first place, direct intervention has sought to supersede markets by embracing direct government production and regulation. Thus governments often impose standards of food hygiene, air and water pollution, and provide vaccination and other medical services in the event of epidemics. Secondly, indirect intervention attempts to work through the market mechanism by means of taxes and subsidies. For example, because formal education is believed to confer benefits on society at large in addition to the benefits bestowed on the individual recipients of education, it receives large subsidies from the fiscus.

However, the problems imposed by externalities need not necessarily require resolution through government intervention, at least in principle. The 'Coase Theorem',

which derived from Nobel Laureate Ronald Coase's (1960) insights, holds that if nothing obstructs efficient bargaining between parties affected by an externality, then people will negotiate a economically efficient outcome themselves. Government intervention is thus rendered superfluous. However, the successful operation of the Coase Theorem rests on several heroic assumptions, not least costless bargaining with no transactions costs.

The problems posed by market failure induced through externalities impinge on local government policymaking in at least two ways. Firstly, interjurisdictional externalities often arise when the revenues and expenditures of one particular local government spillover into some other local authority's jurisdiction. For instance, if a specific jurisdiction undertakes to remove water pollution from a river located within its boundaries, then municipalities downstream may also benefit from this expenditure on pollution control without bearing any cost. Interjurisdictional externalities of this kind can lead to a misallocation of scarce resources. In this example, the local government in question has no incentive to take into account the marginal social cost of river pollution outside its own geographic area and may thus under-supply pollution control from a societal perspective.

Market failure resulting from interjurisdictional externalities may be ameliorated by three alternative forms of government intervention. Firstly, the jurisdiction dealing directly with the externality can be subsidised so that it will consider the external benefits of its anti-pollution policies on other affected local government areas and instigate a socially efficient level of pollution control. This raises the issue of intergovernmental grants and the most efficient methods of designing such grants (see, for example, Bailey (1999) for a detailed discussion of this problem). In real-world federations

intergovernmental grants are the most important policy instrument for tackling interjurisdictional externalities at the local government level. Alternatively, the externality could be 'internalised' by enlarging the size of a local government jurisdiction so that all of the benefits of its pollution program fall within its own boundaries and it thus has an incentive to produce the optimal level of pollution control. This option is not often feasible in real-world fiscal federations since boundary changes may be subject to constitutional constraints. However, actual examples of internalisation are by no means entirely uncommon. For instance, in Australia where local government is not a creature of the constitution, the 1990s were characterised by large-scale 'amalgamation' programs whereby adjacent small municipalities formed bigger consolidated local government units. Finally, affected jurisdictions could negotiate directly with each other in order to reach agreement on the socially optimal level of pollution control. Australian local government provides another example of this kind of behaviour with 'resource sharing' agreements between municipal councils which entailed joint expenditures on projects of mutual benefit.

The second concern for local government policymakers resides in externalities whose area of influence falls entirely within their benefit region. Numerous examples of this kind of externality exist. For example, almost all local governments in advanced economies promulgate noise abatement regulations, many provide fire protection services, municipal health inspection agencies, animal pounds, 'alcohol-free' public spaces, and so forth. In cases of this kind local governments can produce services themselves, finance the private production of services, or regulate economic and other potentially externality-generating activities directly through local legislation.

Non-competitive Markets

Perhaps the most important assumption underpinning Adam Smith's famous doctrine of the invisible hand is the existence of a competitive market which forces prices to equal marginal costs over the long-term and only allows firms to earn a normal' profit, although more recently it has been recognised that potential competition as well as actual competition can both fulfil this function, if markets are 'contestable' (Baumol, Panzar and Willig,1982). By contrast, if output markets are not contestable but nevertheless characterised by monopoly, oligopoly, bilateral monopoly or some other market imperfection, then the invisible hand may fail to allocate resources efficiently. Several factors can prevent competition from occurring in some defined market. For instance, governments often create monopolies through the legal system, licensing regulations, patent laws, import restrictions and the like. Similarly, geographic circumstances such as isolated locations and great distances can serve to limit competition. Thus the vast outback of Australia contains numerous small communities usually serviced by a single supplier. Technological barriers to entry also facilitate the formation of monopolies. Economies of scale, which result in falling average costs over large volumes of output, provide an economic rationale for so-called natural monopolies to develop. In general, substantial economies of scale typically occur in production processes characterised by very high capital or fixed costs and low marginal or variable costs. A further complicating aspect of natural monopolies resides in the fact that where average costs are falling slowly over the relevant range of output, marginal costs will be below average costs. This means that marginal cost pricing necessarily implies firms will incur losses and can only survive if governments subsidise them accordingly. At the local government

level, it is possible to identify numerous industries with this characteristic: sewage systems, water reticulation systems, electrical power distribution systems, transportation systems and fire protection services are only some examples of typical natural monopolies in municipal areas.

Since the cost structure underlying natural monopolies precludes Pigouvian marginal social cost pricing and thus generates market failure and its concomitant outcome of allocative inefficiency, this means that a case for government intervention exists. Three possibilities can be identified. In the first place, governments can produce the service itself, set prices equal to marginal social cost and finance the resultant deficit out of general tax revenue. Alternatively, the service could be provided by a private firm, prices regulated to equal marginal social cost, and the firm subsidised to the extent of its losses. Finally, the private firm could be allowed to charge a price sufficient to cover the average costs of production thereby removing the need for a subsidy, but at the cost of output falling short of Pigouvian allocative efficiency.

The question naturally arises as to which level of government in a federal system should operate or regulate a natural monopoly. The answer to this question once again centres on Oates (1972) correspondence principle and depends on the extent of economies of scale: that is, the greater the extent of economies of scale, the larger should be the political jurisdiction to allow for the realisation of economies of scale associated with the specific service under examination. Accordingly, local governments should be responsible for those services where economies of scale are exhausted within their benefit region. Real-world observation indicates that this indeed often the case, with local governments frequently providing sewage systems, water reticulation, transportation

systems, and many other services with the characteristics of a natural monopoly.

Public Goods

As we have argued earlier, the literature on fiscal federalism has hitherto focussed largely public goods in its assignment of governmental functions to the different tiers of government in a multi-level system of government. The significance of public goods as a source of market failure derives from the inability of private markets to deliver public goods as a consequence of their peculiar characteristics. In general, public goods may be distinguished from private goods on two main counts. Firstly, pure public goods are said to be nonrival in consumption; that is, one person's consumption does not reduce the availability of the good for consumption by others as, for instance, in the case of television viewing. Nonrivalrous consumption is sometimes also referred to by the synonymous term joint consumption, where everyone can consume the same good simultaneously. By contrast, if the enjoyment of consumption by one consumer is inhibited by the concurrent consumption of large numbers of other consumers, such that the good is semi-rivalrous, then it is described as an impure or congestible public good. Examples of this kind of public good include popular beaches over summer, public parks during fine weather, and city streets during 'rush hour'. An important economic implication of nonrivalry is that each extra consumer can consume the good at zero marginal cost to society. Secondly, pure public goods in addition possess the twin characteristic of nonexcludability in consumption; that is, producers of the good are technologically, politically and/or economically unable to prevent individuals from consuming the good as, for example, in the case of national defence. A significant economic consequence of nonexcludability is that because no individual can be prevented

from consuming the good every consumer has an incentive to avoid paying for the good: that is, the problem of 'free-riding' means that the good cannot be provided through markets. From the perspective of local governments, pure public goods possess the additional characteristic of 'localness', where the benefits of the good are limited to a specific benefit region or geographical area. For example, residents of a particular city reap most of the benefits of streetlighting or the local fire brigade.

The problem of market failure stemming from the attributes of public goods is much more intractable for local governments than their national counterparts due to the comparative 'openness' of municipal areas. Wildasin (1986, p.2/3) has put the issue thus:

...[I]t is evident that all of the basic issues of public economics that arise at the level of the (closed) national economy will be present in the local context as well...What one naturally wants to emphasise, however, are those issues that are unique to the local public sector. Perhaps the most novel feature that needs to be taken into account is the *openness* of local jurisdictions. [original emphasis]

Important ramifications of the openness of local economies include the migration of both households on the one hand and commodities and factors of production on the other hand. Decisions taken about the kinds and levels of local government public expenditure can thus induce either in- or out-migration and significantly affect resource allocation in the private sector, both spatially and economically.

Given these complexities, determining optimal public expenditure at the local level is bound to be difficult, regardless of which tier of government in a federation makes the relevant decisions. Pigouvian welfare economics provides the basic rule for ascertaining the allocatively efficient level of public good provision, which will occur where the

marginal social benefit of the good or service equals its marginal social cost. From the point of view of public policymaking, this rule is always difficult to apply in practice in any purported instances of market failure owing to the complexities involved in gathering the requisite information, but in the case of public goods this exercise is made even more onerous due to the problem of free-riding. In essence, nonexclusion means that consumers as taxpayers have an incentive to understate the intensity of their demand for public goods in the belief that they can free-ride on those public goods which are provided regardless of their personal contribution. Since all taxpayers face similar incentives, the problem of demand revelation takes on the properties of a Prisoner's Dilemma game, and it is consequently difficult to estimate the marginal social benefits of any particular public good. Public opinion surveys, contingent valuation studies, and numerous other systems have been developed to try to circumvent this problem of demand revelation with limited success.

Notwithstanding these problems, in the real-world responsibility for determining the optimal quantities of local public goods must nevertheless still be assigned to some tier of government in a federation. Once again, Oates' (1972) correspondence principle can be invoked to deal with this problem. According to this principle, the appropriate jurisdictional level will depend on the 'localness' of the public good in question: that is, if the benefits fall primarily within the jurisdiction of a given local government, then it should be assigned responsibility for providing the good. Conversely, where some of the benefits of the public good 'spill over' into adjacent jurisdiction, then compensatory intergovernmental grants or other arrangements along the same lines as externalities discussed earlier should be invoked.

Once the assignment problem has been resolved, the designated local government still has to decide on the optimal quantity and quality of a specific public good to provide. Given the difficulties involved in the application of the Pigouvian rule, in practice the municipal political processes must determine optimum outcome. This usually means local government electors vote for candidates advocating their own desired mix of local public goods, although in some cases local government referenda may be held to determine popular sentiment on specific projects.

When municipal politicians have decided on the quantity of public goods, the question still remains of how best to provide the requisite public goods. Various options can be canvassed. For instance, local governments can, and often do, both finance and produce the services themselves. Fire protection services, police services and sewerage often fall into this category. Alternatively, municipalities can finance provision but private companies can produce the service. 'Outsourcing' along these lines often includes maintenance of public buildings, open spaces and public vehicles. Finally, and somewhat more rarely, subsidies can be paid directly to households to provide the service themselves, as in the case of the upkeep of verges in suburban streets. Obviously, given the characteristics of pure public goods, privatisation is not a policy option under these circumstances.

Asymmetric and Uncertain Information

Market failure can also arise under conditions where economic agents on one or both sides of the market possess incomplete information on the nature of the transaction, or where available information is asymmetrically concentrated on either sellers or buyers. Akerlof's (1970) famous analysis of the market for used cars is a good illustration of this

latter source of market failure. Developing the concept of 'adverse selection', where individuals on the 'informed' side of the market self-select in a way that harms the 'uninformed' side of the market, Akerlof (1970) proposed that in used car markets, sellers typically possess more information than buyers on the quality of vehicles for sale. Since sellers are more adept at picking 'duds' or 'lemons' than buyers, buyers will realise that the possibility that they may inadvertently purchase a 'dud' is high and consequently only offer 'discounted' prices to reflect this perception. As a result, sellers will be unwilling to part with 'quality' used cars and will sell only 'duds' or 'lemons'. The final outcome will be an adverse selection process where 'lemons' crowd out quality used cars. In Pigouvian terms, this represents an instance where more uncertainty exists in buyers' minds over marginal private benefits than equivalent uncertainty on the part of sellers over marginal private cost. Allocative efficiency is thus unlikely to occur providing a rationale for government intervention on grounds of market failure.

By contrast, it is also possible that a good deal of uncertainty can co-exist simultaneously on both sides of the market, a situation described as incomplete information. Under these circumstances, buyers have difficulties computing their marginal private benefits and sellers experience similar problems with their marginal private costs, with the likely outcome of socially sub-optimal prices and quantities prevailing in market exchanges. Government intervention is thus warranted to generate the Pigouvian equation of marginal social cost with marginal social benefit.

In common with the earlier sources of market failure, the allocation of responsibility for prescribing policies to deal with the problems of incomplete and asymmetric information should be assigned under federal constitutional arrangements in accordance

with Oates' (1972) correspondence principle. Thus where the incidence of either incomplete or asymmetric information falls within the jurisdictional benefit region of local government, then it should be assigned the appropriate policy formulation role. For example, the power to zone land within their jurisdiction between residential, industrial and other uses is usually accorded to local governments, which typically assess the geological, hydrological and other properties of the land in question in making their decisions. This information is then made publicly available to potential buyers and sellers, thereby reducing the problem of incomplete information and enhancing the prospects of allocatively efficient property markets. Similarly, housing construction is typically subject to municipal regulations on quality, size, safety standards and the like, and local governments enforce these regulations through authorised compulsory building inspections. Accordingly, buyers of new houses can be reasonably assured that the dwellings they purchase meet certain specified minimum standards. This serves to remove fears of 'jerry-built' homes by alleviating the degree of asymmetrical information in a situation where builders would otherwise be much better informed than homebuyers. The resultant amelioration of the problem of asymmetrical information thus assists in reducing market failure from this source.

By contrast, where the benefit region stretches beyond municipal jurisdictions, then following Oates' (1972) correspondence principle, the power to address the problem should be assigned to a higher level of government. For instance, regulations concerning the introduction of new medical pharmaceuticals usually fall under the authority of federal governments given their nation-wide benefit region. Similarly, food-labeling laws are also typically a federal matter.

Incomplete and Missing Markets

The efficient operation of Adam Smith's doctrine of the invisible hand implies that markets will provide all goods and services where consumer demand is sufficient to cover the costs of supplying these goods and services. Where this does eventuate, market failure due to incomplete markets is said to have occurred. It is often argued that this form of market failure is especially prevalent in insurance markets and capital markets, where farmers and small businesses experience difficulties in securing loans and other forms of financial services. As a consequence, governments often intervene to provide credit or guarantee loans in an attempt to alleviate market failure.

A related form of market failure stems from an absence of complementary markets, where the necessary markets for interdependent economic activities simply do not exist. Complementarity between markets exists when activity in one market is entirely dependent on the existence of related markets. For instance, equestrian bookmakers require regular horse races in order to service the betting market in this 'sport of kings'. Without a racing industry they would thus have to deal in other forms of gaming.

For both incomplete and missing markets as sources of market failure, the assignment of policy responsibility to a particular tier of government once again depends on the correspondence principle, with local authorities liable for correcting market failure within their benefit regions. For example, in depopulating towns in rural Australia in the 1990s, the critical mass of people often fell below the threshold level required to sustain a local branch of a commercial bank. To provide their communities with ongoing banking services, municipalities sometimes acted as agents for private banks and thus averted market failure due to incomplete markets in the banking services sector in their limited

jurisdictions. Similarly, in small Australian country towns in beef-ranching and lamb producing areas, local governments have often constructed and managed abattoirs, in the absence of privately-run facilities, in order to assist the pastoral industry on which their prosperity depends, by providing the requisite missing market. In both instances, the extent of intervention should be guided by Pigouvian social benefits and costs calculus.

Business Cycles

Market economies have always experienced macroeconomic business cycles in the form of periodic upswings and downswings in economic activity. Macroeconomic fluctuations of economic activity create a *prima facie* case for government intervention intended to flatten the business cycle. Since macroeconomic policies affect an entire economy, their formulation and implementation are typically assigned to the federal government rather than state and local governments. Indeed, the need for macroeconomic stability is sometimes employed as an argument to transfer other expenditure powers away from lower tiers of government in favour of the central government so that they do not thwart macroeconomic policies.

Equity Arguments

The arguments we have presented thus far have considered the case for local government policy intervention based on a narrow conception of market failure conceived exclusively in terms of allocative efficiency. But as we indicated earlier, public policy questions often embrace ethical or equity dimensions which go far beyond economic efficiency. This is true not only of federal and state governments, but also for local governments. Consequently, a broader definition of market failure is required to encapsulate issues of fairness arising out of the workings of the market economy. In this section, we adopt a

definition along the lines of that developed by Charles Wolf (1989) cited above, and examine the case for government intervention on equity grounds.

The introduction of explicit ethical norms into economic analysis creates at least two forms of complexity. Firstly, and as we argued earlier, it is difficult to identify moral values outside of the Pareto principle on which there exists widespread consensus. Needless to add, reasonable people often disagree on the content of ‘universal’ values and these disagreements cannot be resolved through logical disputation or any other intellectual process. A second and related source of difficulty resides in selecting from the almost unlimited range of potential ethical claims, a manageable number of equity arguments likely to command popular assent.

In their influential text on policy analysis, Weimer and Vining (1998, p.146) identify three main ‘...rationales for some of the more important substantive values that often compete with efficiency’. These include ‘human dignity’ which has implications for public policy in terms of income transfer schemes to ensure minimum consumption levels or ‘floors on consumption’, participation in public decision-making processes along the lines of the universal franchise, and ‘paternalistic’ intervention on behalf of children and mentally impaired adults. A second rationale involves ‘increasing the equality of outcomes’ in a relative sense of considering the ‘aggregate wealth of society’. Finally, ‘preserving institutional values’ requires an adherence to existing constitutional frameworks which engender ‘perceptions of fairness’. By contrast, Wolf (1989, p.82) has proposed a more extensive (but by no means exhaustive) list of possible equity standards:

...Equity evaluated as equality of opportunity; equity as equality of outcome; equity as perfect equality of outcome unless departure from equity is an essential

precondition for securing advantages for those who are least favoured; equity as a categorical imperative specifying that no personal or individual action is fair *unless* it can be applied as a general maxim to govern the behaviour of others; equity in the sense of horizontal equity (treating equally situated people equally); equity as vertical equity (treating unequally situated people in appropriately unequal ways); equity as Marxian equity ('from each according to ability, to each according to need'); equity according to the Old Testament ('an eye for an eye'); or equity according to the New Testament ('turn the other cheek'). (original emphasis).

Apart from the formidable problems posed by the existence of alternative equity criteria, further complications arise when different methods of approaching ethical questions are adopted. For example, it is possible to distinguish between ethical frameworks which emphasise either distributive processes or distributive opportunities or distributive outcomes (New Zealand Treasury, 1987). Thus if a distributive outcomes approach is followed aimed at equality of income, then this could conflict with the prescriptions offered by a distributive processes model or the opportunities *modus operandi*. For instance, it is entirely conceivable that unequal distributions may be fair if they result from fair processes of exchange. It is thus evident that the adoption of any one of these generic approaches to equity involves tradeoffs between processes, opportunities and outcomes, not to mention more general tradeoffs between equity and efficiency.

Despite these complications, following Wallis and Dollery (1999), three common ethical propositions are often invoked to guide government policy intervention, including municipal policy. In the first place, it is often argued that distributive outcomes of allocatively efficient markets can generate extremes of wealth and poverty which do not

meet socially accepted norms of equity and thus create a case for redistributive government intervention. According to the correspondence principle, in a federal system of government redistributive functions should be assigned to the central government (King, 1984, p.6) since their delegation to lower tiers of government would be hampered by interjurisdictional migration by poor people. In many modern welfare states, including Australia and New Zealand, this is indeed the case, although lower levels of government often implement welfare policies formulated and financed by central governments.

A second equity argument for state intervention in the face of allocatively efficient markets rests on the concept of merit and demerit goods developed by Musgrave (1959, p.13). Richard Musgrave defined the nature of merit goods as follows:

Such wants are met by services subject to the exclusion principle and are satisfied by the market within the limits of effective demand. They become public wants if considered so meritorious that their satisfaction is provided for through the public budget, over and above what is provided for by private buyers.

Underlying the idea of merit goods is the notion that people do not always behave in their own best interests. For example, citizens might not wear seatbelts or send their children to school, unless compelled to do so by law. Moreover, private markets may fail to provide socially desirable levels of particular services, like 'high culture' in the form of opera or art museums. In these and other instances, government intervention through legal compulsion, subsidies to the arts, etc., can often be justified on merit good or 'paternalistic' grounds. On the basis of the correspondence principle, the merit and demerit argument can easily be adduced in the local government milieu. War memorials,

sports fields, civic parades, zoning restrictions on liquor outlets and brothels, and many other examples of municipal activity clearly fall under the merit good umbrella.

Thirdly, the contentious notion of equal economic opportunity represents an additional ethical rationalisation for government intervention in a market economy. Thus, it is sometimes claimed that ethnic, disability, gender, racial and sexual orientation stereotypes may be consciously and or even unconsciously adopted in employment, housing, and other markets which serve to disadvantage members of these various groups. Exponents of this argument contend that market outcomes are systematically biased against 'minority' groups and demand government intervention in the form of equal opportunity programs, affirmative action laws, and the like, to correct against perceived discrimination. In most federal countries, statutory responsibility for regulating labour markets is usually invested in central or state governments and not local governments, although obviously as significant employers local authorities are obliged to adhere to any legislation of this kind.

Although it would be impossible to determine with any degree of precision the specific impacts of the multifarious economic, demographic, intellectual, social and other forces which propelled the massive expansion of public expenditure at all levels of government in the post-World War Two era in advanced western countries, it seems reasonable to presume that the market failure paradigm, with its enormous influence on public policymakers over this period, played a decisive role. Not only was government activity in public utilities, such as electricity and transportation, drastically expanded, but the state also sometimes participated directly in other sectors, like banking and insurance. Moreover, under the additional influence of various ethical theories purporting to

advance 'social justice', government regulation of private economic activity became extensive. One consequence has been the growth of the 'welfare state', with its attendant policy tentacles now affecting virtually all spheres of social life. In common with higher tiers of government, the local government sector has not been immune from these influences.

CONCLUDING REMARKS

Although the market failure paradigm provides a useful conceptual apparatus for thinking about the appropriate role of government in a market economy and can greatly assist policymakers in designing policy interventions and selecting suitable policy instruments, it has nevertheless been criticised in the literature on at least four counts. We shall briefly examine these criticisms here since they have a bearing the efficacy of the market failure model for local government.

First and foremost, the market failure theory has been attacked by numerous writers on grounds that it implicitly embodies an idealised conception of the state. Chang (1994, p.25) has described the problem in the following graphic terms: '...it is (implicitly) assumed the state knows everything and can do everything'. More specifically, critics have identified three heroic and untenable assumptions in the model of government invoked by the market failure paradigm. Firstly, it presumes that policymakers can accurately determine the degree of market failure; that is, the extent to which actual markets diverge from a theoretical allocatively efficient optimal outcome. Secondly, it presupposes that armed with this knowledge governments can intervene efficiently to restore allocative efficiency. And finally, it assumes that politicians and bureaucrats involved in framing public policy are motivated by altruism rather than self-interest. All

of these assumptions have been questioned and the subsequent rejection of the descriptive accuracy of the market failure paradigm has led to the development of an alternative government failure approach.

A second and a more general argument aimed at all forms of policy intervention is contained in the theory of the 'second best' advanced by Lipsey and Lancaster (1956). This theory holds that even if policymakers know the extent of market failure, they intervene efficiently and they are motivated by entirely altruistic motives, the outcome of policy intervention may nonetheless not achieve allocative efficiency. In essence, the theory of the second best demonstrates that if market failure is present in one sector of the economy, then it is conceptually possible to achieve a higher level of social welfare by deliberately violating allocative efficiency conditions in some other sector, rather than by intervening to restore allocative efficiency in the original instance of market failure.

A much more recent critique of the market failure paradigm has been developed by Zerbe and McCurdy (1999), which draws on the notion of transaction costs. In broad terms, a transaction can be defined as an agreed exchange or transfer of goods and services between distinct parties and the costs involved in reaching such an agreement and which facilitate such a transfer are collectively known as transaction costs. Zerbe and McCurdy (1999, p.561) summarise the basic problem with the market failure paradigm as follows:

A fundamental problem with the concept of market failure, as economists occasionally recognise, is that it describes a situation that exists everywhere. While the ubiquity of market failures seems well accepted, the consequences of this

observation are not. Some people believe this dooms the concept as an analytical tool; others disagree.

They argue further that all market exchanges involve transactions costs which simply represent the costs of the operation of the price system, and these costs are typically not priced. It follows that 'since unpriced transaction costs are ubiquitous, this gives rise to a situation in which externalities and hence market failures can be found wherever transactions occur' (Zerbe and McCurdy, 1999, p. 563). Government intervention on the basis of market failure is thus misplaced: instead, '...anytime government can reduce private transaction costs or its own costs of provision, it should do so regardless whether or not an externality exists' (p.565).

But perhaps the most damaging attack on the market failure model focuses on its methodological underpinnings. In essence, this line of argument holds that the market failure paradigm embodies a methodology which compares actual economic arrangements against some idealised theoretical norm (that is, allocative efficiency) thereby violating the fundamental concept of opportunity cost, which constrains economists to evaluate existing situations against the next best alternative, and not some abstract idealised hypothetical norm. Harold Demsetz (1969, p.1), the architect of this view, termed this procedure the 'nirvana problem' and contrasted with an alternative 'comparative institutions' approach. Demsetz compared these two approaches as follows:

This nirvana approach differs considerably from a comparative institutions approach in which the relevant choice is between alternative real institutional arrangements. In practice, those who adopt the nirvana viewpoint seek to discover discrepancies between the ideal and the real and if discrepancies are found, they deduce the real is

inefficient. Users of the comparative institution approach attempt to assess which alternative real institutional arrangements seem best able to cope with the economic problem; practitioners of this approach may use an ideal norm to provide standards from which divergences are assessed for practical alternatives of interest and select as efficient that alternative which seems most likely to minimise the divergence. These sentiments appear to reinforce Coase's (1964, p. 195) dictum that "until we realise we are choosing between social arrangements that are more or less all failures, we are not likely to make much headway".

Despite these problems, the theory of market failure can provide a useful diagnostic instrument for local government policymakers. Extant literature on the application of the market failure paradigm to the problems of local government has invariably focused on local public goods to the exclusion of other kinds of market failure. In this paper, we have sought to extend the analysis to services beyond simply local public goods and, invoking a narrow or 'efficiency only' definition of market failure, we examined externalities, non-competitive markets, including so-called natural monopolies, asymmetric and uncertain information, and incomplete markets. We also expanded the notion of market failure to include equity issues and looked at various examples of this sought of market failure, including income inequalities, merit goods and equal economic opportunities.

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