

Public finances:

\ at the edge of chaos and ready for outcomes?

The CIPFA Conversation

March 2013



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CIPFA, the Chartered Institute of Public Finance and Accountancy, is the professional body for people in public finance. CIPFA shows the way in public finance globally, standing up for sound public financial management and good governance around the world as the leading commentator on managing and accounting for public money.

Under our Royal Charter, our principal purpose for which the Institute was constituted was to “advance the science of public finance and accountancy as applied to the duties and functions undertaken by public bodies”. We undertook this discussion paper in order to advance debate and discussion about the present day system of public finance.

Our Research Base. This paper has been prepared based on research undertaken throughout 2012. In this discussion paper, we have summarised our findings. Our evidence base is available on request. In presenting this paper our intention is to advance discussion of the issues we raise rather than to advance solutions – further research will be required before, in our view, solutions can be proposed.

CIPFA welcomes debate on this discussion paper and any comment or any questions. You can join our conversation at:

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SECTION 1

The whole public management system

Introducing Complexity Theory

“Many years ago our universe was considered to be a linear place where simple rules of cause and effect were applied. It was believed that understanding the parts of the system would mean understanding the whole. This gave rise to the flawed belief that making each part work better would make the whole work better.

Over time that theory was disproved. A different set of rules on cause and effect emerged and eventually led to complexity theory. This was based on relationships, emergence, patterns and iterations. It maintained that our universe is in fact full of systems, whether they are weather systems, immune systems, or social systems and that these systems were complex. Crucially they were found to be constantly adapting to their environment. Hence complex adaptive systems.

But as well as complexity theory, chaos theory emerged which recognised that systems existed on a spectrum ranging from equilibrium to chaos. A system in equilibrium was believed not to have the internal dynamics to enable it to respond to its environment and could slowly (or even quickly) die but a system in chaos ceases to function as a system.

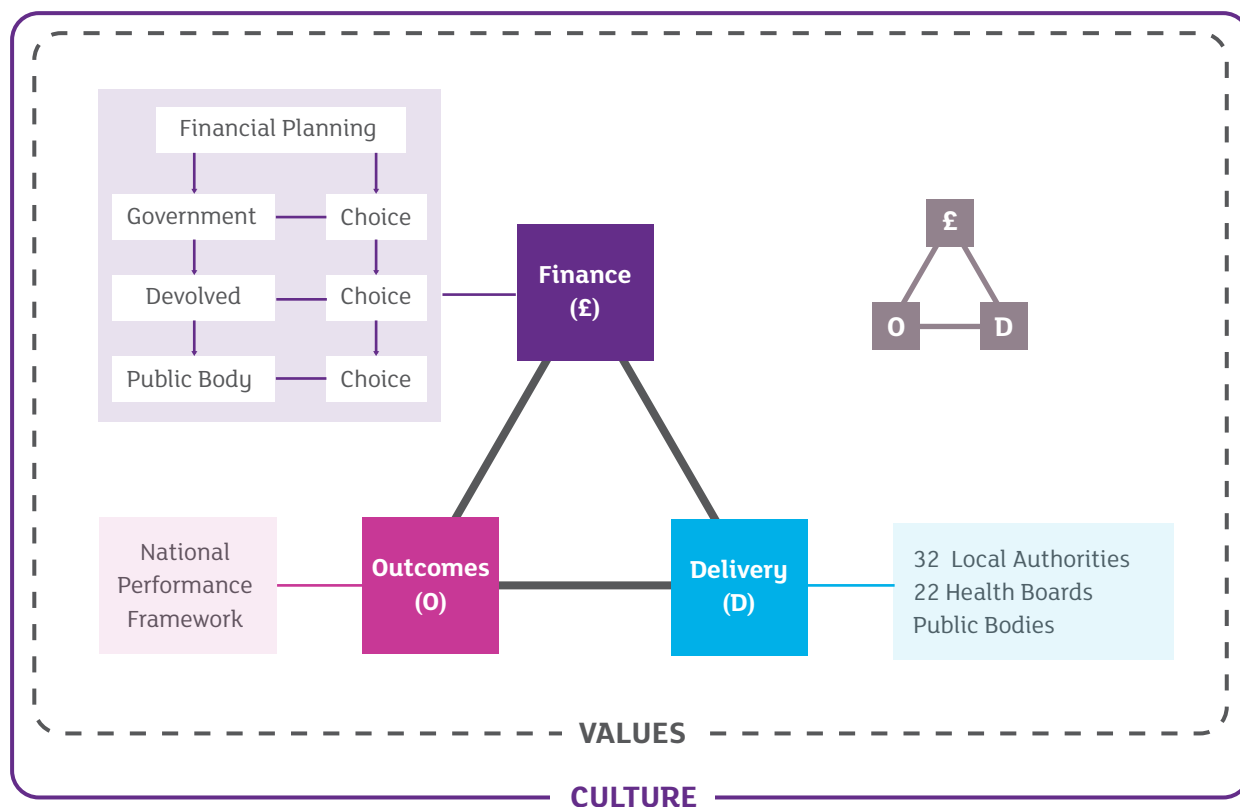
The most productive state to be in for any system is in fact at the edge of chaos where it is believed there is maximum variety and creativity, which in turn leads to new possibilities.”

We want to use both the old and new theory of complexity to help us to look at the parts of the whole Public Management System in order to consider whether there is a cause and effect relationship between the parts of the whole system. We then intend to consider, using the complexity theory lens, whether the public management system is in fact an adaptive system and to consider where, the system of public finance is on the spectrum, where the 2 extreme points are chaos and equilibrium with the optimum state being “at the edge of chaos”.

The Public Management System

The public management system is made up of 3 significant sub-systems:

1. Public finance – The resource “input” which underpins the delivery of services
2. Delivery – The organisations responsible for the delivery of the range of activities which result in identifiable outputs
3. Outcomes – The outcomes which are hoped will be achieved through the contribution of inputs and outputs



The Public finance sub-system has 2 elements to it.

a) Public Finance Distribution

A significant part of our public finance system is the way that we distribute our public money across the tiers of UK and Scottish Government and then within Scotland, between the various public bodies tasked with delivery of service.

b) Budget Choices

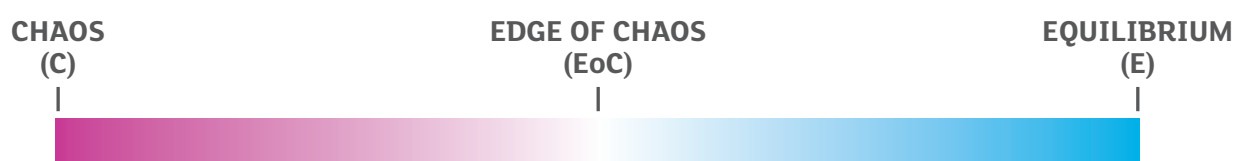
Once the resource is distributed to the delivery organisations, within their local systems, budget choices will be made which will result in specific services /activities being funded. Inevitably, choices are made between activities.

Are we at the Edge of Chaos?

Coming back to the whole system of public management, The Christie Commission has already, examined the delivery component of our whole system. Scottish Government has led a significant shift in approach to focus on outcomes, our second element of the whole public management system. The remaining element, the public finance system, has not been the focus of any review or shift in approach and in our view warrants further consideration.

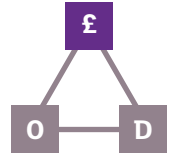
In this paper, we attempt to do 3 things:

Firstly, we describe the present public finance sub-system and its constituent parts of distribution and budget choices. We consider how the systems for distribution compare against their original objectives which were set for these systems as well as reviewing the systems which support budget choices. We hope to be able to conclude on where these systems sit on the spectrum of: chaos, equilibrium or at the edge of chaos.

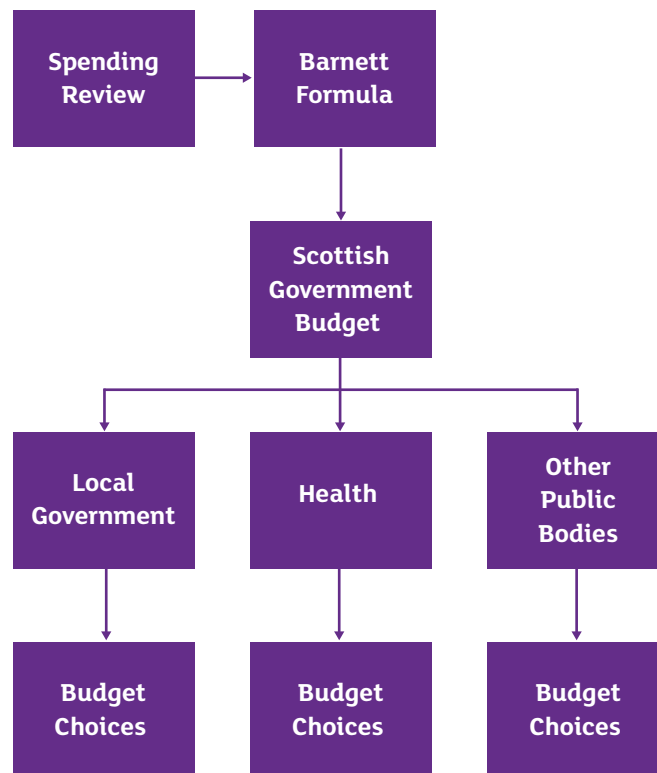


Secondly, we then plot the evolution of the outcomes focus within the Scottish system and consider how the public management system is adapting to this new approach

Thirdly, we shift our lens and look at other countries who are delivering successful outcomes and will try to consider whether there is in fact a cause and effect relationship between these successful outcomes and the system of public finance which is in place or whether, as complexity theory would suggest, there is an entirely different set of relationships at play.



Public finance system/sub system of distributing public finance in the UK



Let's begin by gaining an understanding firstly of the systems which are in place in order to distribute public finance resource. We will begin by examining the UK Government (referred to as Tier 1 hereafter) system which is responsible for the distribution of resource across the 3 devolved governments of Scotland, Northern Ireland and Wales. The present approach, reflects the present constitutional landscape within the UK.

We will then go on to examine the system which is in place within Scottish Government (hereafter referred to as Tier 2) to distribute resource at a high level across the Scottish delivery sectors. Going on to examine (Tier 3) whereby, within a sector, for example health, the Scottish Government distributes resource within the present 22 delivery bodies. The next logical system (Tier 4) would be any local systems for distribution. For example, most local authorities have a mechanism for determining allocations of resource to schools although we do not examine that aspect in this paper.

In taking a closer look at the systems in place to distribute public finance our purpose is to understand the original objectives of the system design and to better understand how that system has evolved over time. We will attempt to categorise what state on the spectrum the system is in.

Tier 1: UK Government to Sub-National Scottish Government using the Barnett Formula

The Objective

The initial objective of the formula was a lever to constrain public spending whilst acting as a vehicle for allocating resource across the UK.

The method of distribution has become a historic formula based mechanism intended to redirect resources to Scotland, Northern Ireland and Wales based on changes in England. The formula's operation now is essentially to ensure that a change in spend in one geographical area is reflected in other geographical areas.

The current formula, introduced in the 1970's was in fact intended as a short term measure but has continued almost 40 years after its introduction. The short-term nature of the formula was intended to pave the way for the introduction of a more relevant need based funding system or formula.

How it Works – An Overview

For Scotland, the Scottish Government's Departmental Expenditure Limit (DEL) block grant is determined via the application of the Formula with Scotland receiving its population share of increases (or reductions) to Whitehall departmental budgets that are carrying out equivalent activities to Scotland's devolved areas.

These annual increments, known as Barnett consequentials, are provided to the Scottish Government in an aggregated 'block'. Once received, the Scottish Government has complete freedom in what it chooses to spend the block grant on. It comes with no conditions attached in terms of any prescription around what the resource should be spent on. As a result, there is no accountability back for the delivery of any specified activities or outcomes.

Each 'Barnett-related' annual increase is small relative to the inherited, or baseline, block budget, which has been built up over decades. This has a significant influence on how the block grant is subsequently allocated.

Our Evaluation of the Barnett Formula

The original objective of the formula was to enable public spending to be constrained whilst also acting as a way to distribute resource across the UK in a reliable and steady way, which would remove the need for annual protracted negotiations each year. The formula has enabled stability over a long period of time. Since devolution, stability has been an important feature of the arrangements. Increasingly however, policy divergence between Scotland and the UK is now a recognisable feature of the current context. The Barnett formula itself was predicated on comparable programmes and as this comparability reduces, less resource will be distributed by this aspect of the formula. For a formula that was introduced as a short term measure, its continuation today with the financial stability which it has offered, is testament to this system having adapted.

Considering the formula against the aim of constraining public spending, the Barnett formula has been supported by a statement of funding between UK Government and the devolved governments. As the devolved administrations have been given additional fiscal powers, so the statement of funding has been adjusted to reflect the fact that the block grant will be adjusted by the amount commensurate with what the devolved government plans to raise through these additional taxes. So it's the statement of funding which has been effective in controlling the level of spend by the devolved administrations.

Tier 2: Sub-National Scottish Government distribution of resource across the main sectors

The Objective

The limited tax raising powers available in the recent past to the Scottish Government, has meant that the block grant is by far the government's biggest source of income. The distribution of resources by the Scottish Government is therefore largely about distributing the resource transferred from the UK Government. The Scottish Government itself does not of course provide direct services. After setting the strategic direction, its role primarily is to provide funding to the direct service delivery bodies such as health boards and local authorities. It is at this stage that the resources are formed into clear areas of spend expressed in the annual process which sets the Scottish Government budget.

How it Works – An Overview

The Scottish Government of the day distributes the DEL budget across services via a series of negotiations between the First Minister, the Cabinet Secretaries and key budget recipients. The results of this mainly confidential negotiation process are presented to the Scottish Parliament for scrutiny in the Committee process and for approval by Parliament. Many budgets are based on the previous year's block allocation, plus or minus. As a result, we don't see any significant shift in the distribution of resource across the sectors. Apart from the previous year's allocations, any further pre-announcement transparency over the distribution comes from public commitments included in party manifestos. The lack of transparency around this part of the process makes it difficult to assess its effectiveness.

As the government of the day has to secure parliamentary approval for its budget bill, this results in a negotiation process whereby political opponents will offer to support the government of the day's budget within parliament, on certain terms which are specified – these will generally be focused on securing the allocation of resource to programmes/sectors/activities which the political party values.

Our Evaluation

The principal role of the process is to provide funding to those bodies which actually deliver our public services. That objective is met and the annual budget clearly sets out the areas to be funded. With it also comes some evidence of stability of funding.

Although approved by Parliament and then subjected to scrutiny by Committees, that transparency does not mask the limitations of the process which can be reduced to the political ambition to protect budget size. Budget protection in itself does not relate directly to the outcomes expected from public expenditure nor can it act as a control against expenditure.

Tier 3: distribution of the health sectoral segment across all the 22 delivery bodies within the health sector

The Objective

In general terms, since the 1970s, the underlying objective across the UK has been to ensure equity among those receiving funds on the basis of relative need for health care services, *where use of services is used as a proxy for need*, ie, NHS resources should be distributed in a way that secures equal opportunity of access for people at equal need across the UK.

However, this access is only to the health services provided by the NHS and even then based on an unspecified definition of 'need' (which is likely to be the immediate need for access to the services on offer).

How it Works – an Overview

Current resource allocations for Scottish Health Boards are informed by the NHS Scotland Resource Allocation Committee (NRAC) formula. This formula was introduced in 2009/10 and replaced the Arbutnott formula which itself was preceded by the Scottish Health Authorities Revenue Equalisation (SHARE).

The formula covers about 75% of the Health Board budgets and uses a weighted capitation approach. This approach is based on population data which is then adjusted for a variety of factors such as age, sex composition, additional relative health needs and unavoidable excess costs which recognises geographic and differences in sparsity.

Our Evaluation of distribution to health bodies

There is no recognised way of discerning whether the “equality of access based on need” criterion is being met. The reason for this is due to the difficulty of measuring such equity of access based on need. Hospital and community health services and GP’s provide a variety of services and generally, it is not clear which has the greater priority. The lack of definition over equity of access based on need, also makes evaluation difficult.

Tier 3: distribution of the local government sectoral segment across all the 32 delivery bodies within the local government sector

The Objective

A formula is also the primary basis for allocating resources to local government in Scotland. The Client Group Approach to budget allocations has been in operation since the early 1980s. It was introduced as a means of distributing local authority grant funding in a systematic and objective manner. It aims to ensure that the Scottish Government’s local government budget allocation is allocated equitably among local authorities

How it Works – an Overview

Local authorities are allocated their share of the Scottish Government’s Local Government grant allocations based on a long-standing formula-driven arrangement.

General Revenue Grant comprises a local authority’s cash share of the previously allocated Grant Aided Expenditure (GAE) as set for financial year 2007-08 adjusted to take account of up to date measures of the relative assessments of need.

GAEs are estimated for each service provided based on what is described as the Client Group Approach. This derives estimates of the cost of providing the services for each set of clients by reference to a number of key indicators.

Our Evaluation

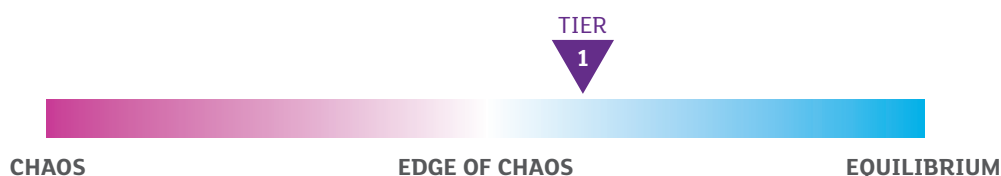
The Scottish Government/COSLA review of the current arrangements concluded that the GAE methodology is perceived as being complex, especially by those not directly involved in its application. However, it was still deemed to be generally fair in securing equitable allocation of funds based on need. So again, equity is the key driver rather than the delivery of pre-defined outcomes.

Reflections on the system

Tier 1

The distribution of public finance from the UK government to the Scottish Government continues to rely on a little modified formula, which existed prior to the present constitutional landscape of the UK. The formula approach has created a stable financial planning platform but has not placed an assessment of need at the heart of distribution decisions. There is no accountability to Westminster for the use of resource, instead it's the devolved parliament which is there to hold government to account for its use of these resource.

So where would we plot this system – it is not a system in chaos. The fact that it continues to operate in a completely different constitutional landscape would suggest this is a system which has adapted and therefore can't be described as being equilibrium. So we conclude that it is closer to edge of chaos than to the other two extremes.



Tier 2

This part of this system isn't particularly transparent and therefore its difficult to assess its effectiveness. Again, this system given its reliance on past year allocations has tended to produce fairly stable and predictable allocations across the sectors and has not produced significant variations in terms of the year on year allocations which the sectors have received.

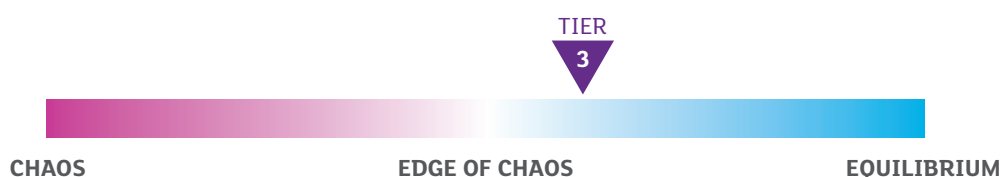
So where does this sit on the spectrum? Again, it doesn't feel like a system in chaos. Year on year, successive governments have been able to determine allocations across the sectors. The fact that year on year, allocations have been very predictable, does indicates that this could be a system closer to equilibrium than to the edge of chaos.

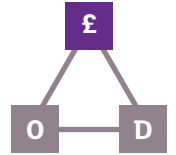


Tier 3

The existing resource allocation systems remain rooted in their historic origins with some adaptations over the years. Both formulas do result in variation of allocation. The NRAC allocations per head for Scotland's 14 health boards varies by up to 34%, If the 3 island health boards are omitted (none of which account for more than 0.5% of Scotland's population, the variation would be only up to 16%. For local government, as population numbers, pupil numbers and road lengths vary across all 32 local authorities, the overall allocations are an aggregate of a wide range of variation across these different services. These formula are largely accepted by the respective sectors as a fair and stable way to distribute resource.

So where does this sit on the spectrum? These systems are not in chaos. The variation indicates that this is a system closer to the edge of chaos than to equilibrium.





Public finance system: sub-system of budget choices

Once public bodies have an indication of their likely funding allocations, which are derived from the public finance distribution system, a delivery body will then proceed to make its own local decisions and choices about where and what to spend that resource on. These choices are exercised as part of each body's budget setting process.

Objectives of public sector budget setting processes

- a) Firstly, given these bodies are operating within a public management system, one of the primary objectives of their budget setting process is to demonstrate to its respective tier of government, that their spending plans are **affordable** in light of the bodies income streams.
- b) For local authorities, the budget setting process underpins the administrations choice about **taxation** levels.
- c) Both of the first two objectives allow a body to evidence its stewardship of public resource. But the budget process also facilitates a process of decision making about what areas the body should choose to spend its resource on. The actual budget therefore provides evidence of the result of this decision making and shows where the division of resource has taken place across programmes and services, It is not only possible to see the **prioritisation** within an individual bodies budget but it is also possible to see the prioritisation at tier 2 level (ie) Scottish Government
- d) For public bodies, there is a duty to demonstrate **Value for Money** (i.e. whether there is an optimum balance in place between the inputs (£'s), outputs, and outcomes. The budget itself identifies where the inputs are going and ideally bodies would be able to triangulate information showing the level of planned inputs, with the relevant planned outputs as well as outcomes.
- e) Budgets once approved are, within a devolved approach to financial management, then delegated to operational managers and therefore there is an alignment between service/programme responsibilities at a local level and the corresponding financial responsibilities. The process of delegation, results in clearly identifiable budget holders who are then **accountable** for both sets of responsibilities.

How it works – an overview

In reality, most public sector bodies across Scotland are using an incremental approach to budgeting. An incremental approach to budgeting takes the previous years budget as the baseline for the next year's budget and then makes additions to the baseline for investments which the body wishes to make or reduces the baseline for known pressures.

So far we've described the system of distribution and budget choices as if they were not inter-linked. However, in reality they are. On occasion and using certain mechanisms, government, when distributing resource, can attach conditions to the resource thereby limiting (or even removing) local decision making in terms of where and what to spend the resource on.

Let's examine the current practice, in terms of attaching conditions to distributed resource, across the tiers of government:

Tier 1 (UK to Scottish Government) – when this resource is received it is not ring fenced ie it has no prescription in terms of what the resource should be spent on. Therefore, when Scottish Government undertakes its own budget setting process, it has complete free reign in terms of where and what to spend the resource on.

Tier 2 (Scottish Government to sectors) – it could be argued that the SOA development is creating an effective condition on whole sectors to commit to delivering the outcomes contained within the SOA. The accountability link for delivering on these outcomes is not as strong as it is within Tier 3 level below.

Tier 3 (Scottish Government to sectors) – There is variation across the sectoral bodies in terms of the conditions which are attached to the resource when it is received from Scottish Government.

For local government, in the past, when this resource was distributed it did come with prescription in terms of what the resource should be spent on. The mechanism used to ensure this prescription was taken into account when the local body was making its choices, was to award the resource as a specific grant. The award of resource in this way the subject of specific scrutiny to provide assurance back to government that the resource had been used in the way intended.

The introduction of the concordat between the Scottish Government and local government introduced a new relationship between these bodies and had modification to funding distribution as one of the components. Flexibility was applied to funding previously ring fenced. In practice this meant that local authorities could apply funding previously intended for nationally prescribed reasons to their own locally determined priorities. As a result, local government now receives its resource largely without any specific prescription from Scottish Government. The concordat did however require local government to play a part in the achievement of local outcomes which are required to be set out in a localised community planning partnership single outcome agreement.

Scottish Police Service – Scottish Government has made the distribution of resource dependant on the police service maintaining a prescribed level of police numbers.

Local health bodies are required to develop a local delivery plan (LDP) and this effectively represents its contract with government to deliver key elements of service within certain performance targets. The distribution of resource is expected to support the achievement of the local delivery plan. So although a significant volume of resource is distributed to health boards via the NRAC formula, formally it is un-ring fenced although it is clear that boards will be expected to prioritise the allocation of resource to the achievement of the targets within the LDP.

A recent development in the system was the award of the Change Fund within the Spending Review of 2007. The change fund was awarded to NHS on behalf of both NHS and local government and the purpose of the fund was to facilitate testing in the area of older people with the aim of improving the outcomes being experienced by older people. The resource was therefore distributed with conditions attached and local bodies are required to evidence their progress with improving outcomes for older people. Government has signaled that this won't be a recurring resource indefinitely and therefore the expectation is that local bodies will be building sustained models of service.

Our evaluation

We will consider how the system performs in relation to 2 of its objectives:

- Prioritisation; and
- VFM

Prioritisation

Generally budget's will be structured around the organisational structure of the delivery body. Therefore budget choices are made within the context of the departmental structures and therefore the activities within the department rather than the outcomes which they are now required to contribute to as part of the Scottish move to an outcomes approach.

VFM

Generally most bodies, when considering where to puts its input resource, are unlikely at that stage to be presented with details of the intended outputs and outcomes.

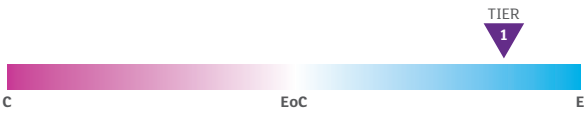
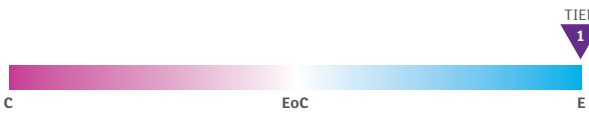
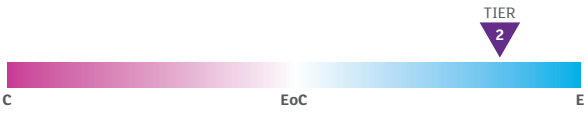
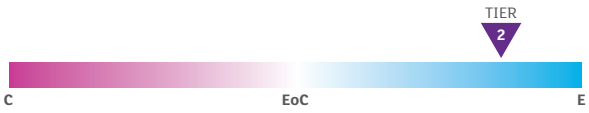
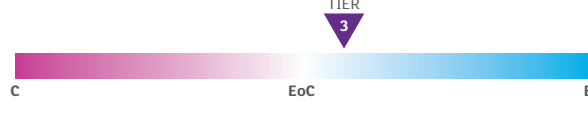
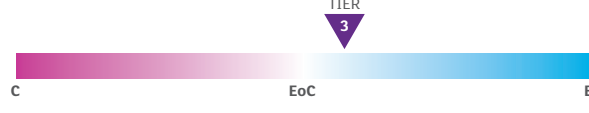
Reflections on the system

At Tier 1, generally there are no conditions attached to distributed public finance which means that there is complete freedom in terms of choosing what to spend the resource on

At tier 2, the single outcome agreements are a mechanism for influencing the choices made by sectors, although to date we haven't detected any such impact yet. There is also variation in accountability between sectors.

At tier 3, there is an on-going application of conditions attached to distributed public finance, although following the concordant this is significantly less than previous levels.

Overall we conclude that most public bodies budgets are configured around the organisational and managerial structure rather than being built up around programmes or outcomes. In our view, budget choices are being exercised within organisational parameters rather than by structuring budgets around programmes which are known to contribute to stated outcomes.

	Distribution	Choices
Tier 1		
Tier 2		
Tier 3		

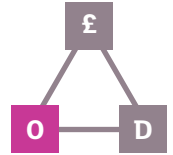
Reflections on the overall system

We conclude that overall public finance is not in chaos but can be plotted to be somewhere on the spectrum towards the edge of chaos. But not all parts are operating at the same points on the spectrum.

Tier 1 distribution and choices collectively are closer to equilibrium and considered together do not present the opportunity for new possibilities.

Tier 2 incorporates a lack of transparency in the system which makes it difficult to conclude but evidence would indicate that it is closer to equilibrium than to the edge of chaos.

It is at Tier 3 where characteristics of the edge of chaos can be detected. This means that in practice, and based on our evidence, the opportunity for new possibilities is closer to the point of local public service delivery.



Outcomes system

Objective

The intended shift to an outcomes approach was signaled in the SNP election manifesto in 2007 where it stated that it would be adopting the Virginia State Model. In government, they continued to actively encourage the move towards a more “outcome based approach” to delivering on the government’s purpose.

The objective of the outcomes system is therefore to ensure the government delivers on its purpose: “To focus government and public services on creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth”. This is commonly shortened to “Our purpose of creating sustainable economic growth”.

How it works – an overview

- 1) **The statement of outcomes:** At its heart there is a clear statement on the governments purpose, five strategic objectives which are supported by sixteen national outcomes and fifty national indicators.
- 2) **The performance measurement system:** The initial shift to an outcome approach was introduced into the public management system by the introduction of the on line performance measurement system “Scotland performs”. This represents Scotland’s first ever national performance framework. In practice this means that for the first time in Scotland it is possible for citizens to have clarity on not only the purpose of government but also on the performance of government.
- 3) **Influencing the planning and focus of delivery bodies:** In November 2007 national and local government signed a concordat, which committed both to moving towards Single Outcome Agreements (SOAs) for all 32 of Scotland’s councils and extending these to Community Planning Partnerships (CPPs). The SOA’s are based on the national outcomes and indicators and, under a common framework, local outcomes to take account of local priorities. The SOA is a strategic document, setting out the priority issues for the Local Authority area.
- 4) **Resource:** Government has indicated that it expects that the shift to an outcomes approach would have an impact upon budget and that improved performance would arise by:
 - understanding the impact of resources and activities on outcomes; and
 - tailoring resources deployed to contribute to outcome.
- 5) **Accountability for outcomes:** John Swinney, the Cabinet Secretary for Finance and Sustainable Growth, has asked the Accounts Commission to explore how external audit and inspection can promote effective practice in Community Planning Partnership’s (CPPs).

Our Evaluation

The performance measurement tool continues to be populated and maintained – the extent to which the public are aware and use the tool is not known. Single Outcome Agreements are embedded into the strategic planning processes of community planning partners but it is less easy to see SOA being embedded into the strategic planning of individual planning partners.

Known channels for accountability generally are:

- 1) governance – a board should hold a management team to account for the delivery of its strategic aims and stated outcomes
- 2) managerial – senior management should hold staff to account for performance which relates to strategic aims and outcomes
- 3) political – parliament and the electorate hold the government to account for the delivery of its purpose, and strategic objectives.
- 4) Audit Scotland – on behalf of the public interest, Audit Scotland review performance

There is little evidence of there being real accountability, within the existing channels, in relation to the outcomes contained within Single Outcome Agreements.

There has been very little impact on budgets despite this being an expectation of government. As we've entered a different financial environment, government has chosen to protect the total level of spending by health bodies, for example, rather than protect spend on specific programmes. The focus on maintaining police officer numbers is a further example of protecting inputs.

When we consider the systems for distribution:

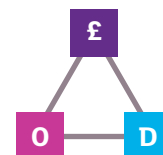
- Tier 1 – there is clearly no relationship between the Barnett formula and outcomes
- Tier 2 – because of a lack of transparency, it's difficult to establish if there is a relationship
- Tier 3 – the use of mechanisms like ring fenced grants, change fund etc at this level do attempt to link the distribution of resource to outcomes; the respective distribution formula themselves are concerned with equity of access and equity of distribution – no focus on outcomes.

Reflections

Tier 1 – the shift to a focus on outcomes is not coming through the UK layer of government and there is no relationship between the distribution formula and outcomes

Tier 2 – The Scottish Government is significantly driving the focus on outcomes, and has extensively influenced the expansion of SOA's to cover all delivery bodies. It was difficult to establish whether there is any relationship with outcomes at this part of the distribution process.

Tier 3 – SOA's are not quite so embedded in the individual partners strategic planning process and no significant impact on resource's across the whole system, either in the public finance distribution system or within budget choice systems, although some attempt through the continued use of ring fencing to link the resource allocated from the distribution system to specific outcomes by attaching conditions to the resource thereby removing local choices for this resource.



Revisiting the whole public management system

So where do the preceding chapters take us?

If complexity theory holds, then you don't need all parts of the system working to make the whole system work better. Let's reflect then firstly on how we think the individual parts are faring and then try to consider how the whole is working.

So we can see some variation in the performance of how each part of the system is working. Looking at the whole rather than at the parts, what do we see?

	Public Finance System: Distribution	Public Finance System: Choices	Outcomes	Delivery
Tier 1 (UK – Scotland)	Objective: to control expenditure System: just up from being in equilibrium	No conditions attached to the resource so no influence over budget choices	No push to focus on outcomes	No services delivered at this level
Tier 2 (Scotland to sectors)	Objective: to distribute funding System: close to equilibrium	SOA's have the potential to act as a condition over local budget choices, just not detected yet	Spread of SOA's across all sectors now	No local services delivered at this level
Tier 3 (sector to individual bodies)	Objective: equity of distribution System: just up from being in equilibrium	Some conditions set, linking resource to the delivery of outcomes	Spread of SOA but soft accountability for these outcomes	Variations in service quality across public services

Reflections on the parts of the system

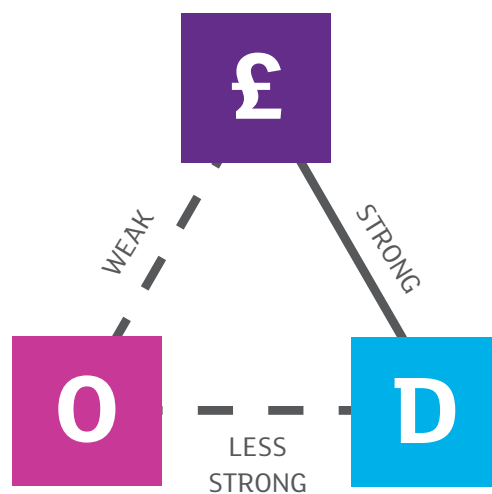
- The individual parts of the system are performing differently, which if complexity theory hold then this isn't a problem.
- The distribution system is continuing to function, using fairly long-standing approaches and managing to adapt to changes in the environment, for example Barnett was created when there was no devolved government's and continues to operate today within an entirely different constitutional landscape.
- The degree to which bodies are making conscious choices between programmes and activities using a consideration of VFM ie maximizing inputs, outputs in terms of the return on investment through outcomes is less developed and is being hampered by the organisational structure of many bodies budgets. In addition, the use of incremental budgeting tends to focus choices around investment and disinvestment rather than examining the core base budget.

Reflections on the whole system

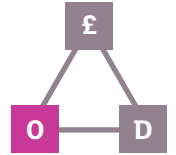
When we look at the whole, what can we conclude? –

- The whole is not a cohesive system focused on outcomes.
- It does feel like a series of sub-systems which have been developed incrementally over time.
- Accepting complexity theory and that cause and effect is now irrelevant, and that its more about patterns and relationships, it is difficult to see any relationship between all the 3 parts of the whole system.
- While there is a strong relationship between distribution and delivery, there is a weak relationship between delivery and outcomes. From our research we did not, at this stage, detect any relationship between distribution and outcomes.

Returning to our public management system we would now depict the relationship as follows:



We now step out of the Scottish system, change the focus of our lens and see what whole systems look and feel like elsewhere in order to give us a comparison



International outcomes

Despite a clear statement of intent by the Scottish Government on what our national priorities are, Scotland's public service performance is still behind many other international countries. In this chapter, we're shifting the lens in order to examine the systems in other countries to see if this can help us assess the effectiveness of our whole system. We will now look at some of those countries who are the recognised better international performers in terms of one specific outcome. We have tried to establish why these countries perform better, what they do differently with their public money and how that links to their success.

Outcome: equity of access to education and educational attainment in reading, maths and science

The relative performance of schools across the world is one of the few public services which is measured and analysed. This is done by the OECD through the Programme for International Student Assessment (PISA). We will begin by drawing in some relevant OECD findings and then we'll move onto examine 3 of the most successful countries as per PISA grading.

The volume of research undertaken by OECD in the area of education reveals a number of important system features which are worth highlighting

a) Contributing Factors To Educational Success

ai) Equity:

The OECD regards equity, generally the ability of a student to achieve educational success regardless of background or initial socio-economic status or other disadvantages as a vital aspect in achieving educational success.

The OECD states "Governments can prevent school failure and reduce dropout using two parallel approaches: eliminating system level practices that hinder equity; and targeting low performing disadvantaged schools."

aii) Autonomy

One study concluded that "Generally, school autonomy seems to have a positive impact—but only when schools are given extensive decision-making powers over the purchase of supplies, the hiring and rewarding of teachers, and the choosing of instructional methods. Giving schools power over designing the curriculum syllabus, approving textbook lists, and determining the school budget seems to be detrimental to student performance."

b) Total Amount Of Public Money Spent On Education ie The Volume of Input

Research shows that providing more money to schools is not enough to improve their performance. However, the way money is allocated to schools does matter for equity.

In the view of OECD, it is unwarranted that simply increasing inputs (e.g. having more instruction hours) will enhance output. For example, increasing overall funding for the school system can lead to lower efficiency and also more money can conserve inefficient arrangements if not matched with conditions promoting more efficient spending.

- AN OECD paper on School funding formula's concludes that "we know very little about the causal relationship between education costs and student performance"; "it is not possible to link school funding formulas to education outcomes in a reliable and reasonably precise way."

Research suggests that institutional variation across countries explains far more of the variation in student test scores than do differences in the resources devoted to education.

c) Public Finance Distribution

An OECD paper on equity and quality does state that “the way money is allocated to schools does matter for equity.”

In its research, the OECD found that funding is not normally directly linked to outputs or outcomes because (in summary):

- Detailed and reliable datasets on outputs / outcomes are often not available
- Often difficult to link student performance to school effort
- Measures would often exclude socially desirable aspects: co-operation skills, tolerance, other traits
- Risk of perverse incentives – an example would be what one OECD report refers to as ‘cream skimming’ (selecting or accepting only the best students) (OECD equity and Equality in education)

The paper states “Governments can prevent school failure and reduce dropout using two parallel approaches: eliminating system level practices that hinder equity; and targeting low performing disadvantaged schools.” Therefore a resource allocation methodology which seeks to implement these 2 characteristics is therefore more likely to yield a successful, in OECD terms, educational system.

d) Targeting Funding

In relation to funding formulas a review of education funding methodologies in the USA identified two main ways that funding may be specifically targeted.

- i) At state or national level specifically separating out specific educational programmes (e.g. educational initiatives, client groups, school groups etc) and developing a resource allocation approach suitable for each category.
- ii) Where the total state (or national) funding is not segregated into specific categories, funding formulas may be weighted or adjusted to allow for:
 - Pupils’ needs – e.g. disability, non-english language students, low income, grade level, academically at risk etc
 - School criteria – e.g. location, cost factors, teacher education & experience (cf ‘quality of teaching staff’), academic performance

It was noted however that even where the weightings or adjustments were used as a ‘targeted’ basis, it was relatively rare for the funding to be specifically restricted (i.e. ring-fenced). “...states do not typically restrict the use of additional dollars to the population targeted by the weight. In fact, the only exception to this general pattern relates to funding policies that direct additional funding to low-performing schools”.

e) Budget Choices

The OECD paper, School Funding Formulas, noted that even though resources are allocated according to need estimation, they might not be devoted to these needs” and “it is still undecided whether the introduction of school formula funding regimes has changed actual school funding practice”.

OECD recognises that to ensure funding is used to support intended / weighted programmes some “countries have implemented accountability measures at the school level which greatly vary in their capacity to control schools”.

f) What Resource Is Spent On

OECD also reflects that “After a certain threshold of expenditure, the way resources are spent is more important than the total amount spent. At the school level, more funding does not lead automatically to better results.”

For education policy, the results of a study suggest that the crucial question is not one of providing more resources but of improving the institutional environment in which schools function. Spending more money within an institutional system that sets poor incentives will not improve student performance. An institutional system in which all the people involved have an incentive to improve student performance is the only alternative that promises positive effects.”

g) Accountability

A study of practices in the USA noted that the publication of Quality Counts' by Education Week provides states with a grading of their educational system. This promotes a relatively high degree of accountability. For example the following information was published in relation to Maryland:

OVERALL GRADE

A state's overall grade is the average of the scores for the six graded categories.

Maryland: B+

Rank: 1

Nation: C+

Online extra

Calculate your own *Quality Counts* grades at www.edweek.org/go/qc13calculate

	Maryland	U.S. Average		Maryland	U.S. Average
Chance for success (2013)					
Early foundations	90.4	79.3	Status	85.4	64.2
School years	82.9	75.0	Change	89.3	70.6
Adult outcomes	88.7	76.8	Equity	71.7	77.8
Transitions and alignment (2013)					
Early-childhood education	100.0	84.1	Standards	96.4	87.3
College readiness	90.0	69.2	Assessments	78.3	83.3
Economy & workforce	100.0	92.2	School accountability	90.0	85.3
School finance analysis (2013)					
Equity	86.7	86.6	Accountability for quality	76.5	74.5
Spending	85.2	64.9	Incentives & allocation	84.6	70.4
			Building & supporting capacity	90.0	72.6
The teaching profession (2012)					

Maryland

grade

rank

How did the average state score?

Chance for success (2013)	B+	6	C+
Transitions and alignment (2013)	A	2	B-
School finance analysis (2013)	B	8	C
K-12 achievement (2012)	B	3	C-
Standards, assessments, and accountability (2012)	B+	24	B
The teaching profession (2012)	B	3	C

Quality Counts Grading Breakdown

This table reports the detailed scoring behind the grades for the six major topics examined in *Quality Counts*. Scores for those major categories are based on the respective subcategory scores.

Grading Curve

A (93-100), A- (90-92), B+ (87-89), B (83-86), B- (80-82), C+ (77-79), C (73-76), C- (70-72), D+ (67-69), D (63-66), D- (60-62), F (0-59)

As stated by the Pew Trust, which supports the preparation of Quality Counts: “The ultimate goal is holding accountable those school systems that lag behind their counterparts. At the same time, policy makers have wanted to spotlight the best practices of those districts where students perform better than expectations.

An example where an attempt has been made to increase accountability through the use of output / outcome measures is the state of Florida (State Policies that Pay, p25). For each school a ‘Return on Investment’ index is calculated to relate the outcome achieved with the resources invested. The return on investment is determined by dividing the percentage of students with learning gains by the program costs per weighted full-time equivalent student at the school. This is used for data-based decision making and can help in making informed choices about the future use of resources.

The better international performers

The top performers are Korea, Finland and Singapore in the subjects of reading, maths and science. The performance of these countries is better than Scotland and the UK as can be seen in the following selected comparator:

PISA results, 2009

Country	Reading	Maths	Science
Korea	539	546	538
Finland	536	541	554
Singapore	526	562	542
USA	500	487	502
UK	494	492	514
Scotland	500	499	514
OECD average	493	496	501

Source: PISA 2009, main findings, OECD; Scottish Government – PISA 2009 Highlights from Scotland’s results (2010).

So what does our study of these countries reveal?

	South Korea	Finland	Singapore
Total amount of public money spent on education	South Korea spends \$7,434 per student at all levels of education, as compared to the OECD average of \$8,831, represents 7.6% of South Korea's GDP spent on education OECD average = 5.9%. This is the second-highest percent of GDP spent on education.	In 2008, Finland spent \$9,463 per student, as compared to the OECD average of \$8,831. Total spending on education represented 5.9% of Finland's GDP in 2008; the average across OECD countries was also 5.9%.	Spend per pupil not identifiable. PISA 2009 Vol 4 (page 85 Figure IV.3.7) indicates that Singapore has a low cumulative expenditure on education, with large class sizes and high teachers salaries.
Public finance distribution	Limited public information.	Funding is based on pupil numbers and the special conditions of the municipality.	Limited public information.
Accountability	Annual evaluation of schools School-based performance rewards now available Evaluations are publicly reported Schools are evaluated annually by external monitoring groups established by the provincial education offices.	There are no apparent league tables for schools or teachers Reliance on principals and teaching staff to uphold professional standards There are no external inspections of schools or standardized testing to constantly monitor student progress. Instead, parents trust teachers as qualified professionals, teachers trust one another and collaborate to solve mutual problems, and principals trust their teachers because they have all been teachers themselves.	Ministry for Education sets goals for teachers and principals The annual teacher performance appraisal is a key control framework, assessing 16 competencies Incentives for high performance are varied including honours and bonuses Students are also incentivised to perform well with those in the top 10% typically receiving \$400 - \$600 Teacher performance is appraised annually in an Enhanced Performance Management System. Students are also encouraged to work hard through an incentive system, which rewards students for strong performance in both academic and non-academic work.

Reflections on international performance

If we take the our reflections from our international assessment and apply it to our recognised public management system (and public finance sub-system), this is what we have found:

Distribution

- It's not the volume of resource that's spent on education that matters, above a certain point, but what you spend the resource on that makes the difference.

- Ensure public finance distribution systems focus on eliminating system level practices that hinder equity; and targeting low performing disadvantaged schools.
- Distribution to ensure equity of access to education and evidence of the national importance of education was identified across all three nations;

Choices

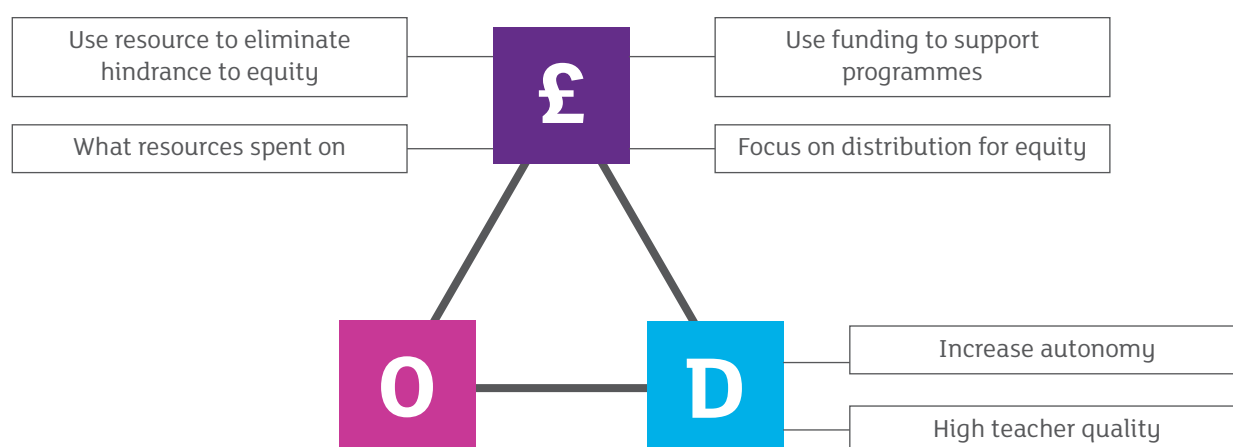
- In order to ensure funding is used to support intended / weighted programmes some countries have implemented accountability measures at the school level which greatly vary in their capacity to control schools

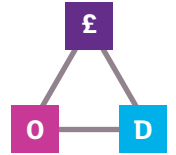
Delivery

- Increase school autonomy but only over purchase of supplies, hiring and rewarding of teachers and choosing instructional methods
- high teacher quality was found to be common over the three nations
- There was variation across the 3 countries studies in terms of the level of Autonomy experienced:
 - In Singapore, The Ministry of Education determines all national education goals and curriculum guidelines, and is responsible for hiring teachers directly from the National Institute of Education.
 - Increased autonomy is only offered to the top performing schools in Finland.
 - The co-operative and trust based environment in Finland therefore generally means that teaching staff have considerable autonomy in teaching decisions
 - In Korea, there is significant central control of teacher appointments. Central control has (in the past) addressed perceived weaknesses in the teaching workforce composition. There is control over the evaluation of teachers and incentives for high performance.

Overall we found that political commitment was evident and education policy was found to developed on an integrated basis, in particular there was clear evidence of integration with economic policy. In Korea, the primary goal was to provide educated manpower to the economy. In Finland, success was long and slow and not the result of a single development, policy or programme.

Turning again to our public management system this is where we have identified where public finances have their greatest impact:





Observations

‘we must become the change we want to see’

Mahatma Ghandi

In this paper, we attempted to do 3 things:

Firstly, to describe the present public finance sub-system and its constituent parts of distribution.

Secondly, we plotted the evolution of the outcomes focus within the Scottish system and consider how the public management system is adapting to this new approach.

Thirdly, we looked at other countries achieving better outcomes.

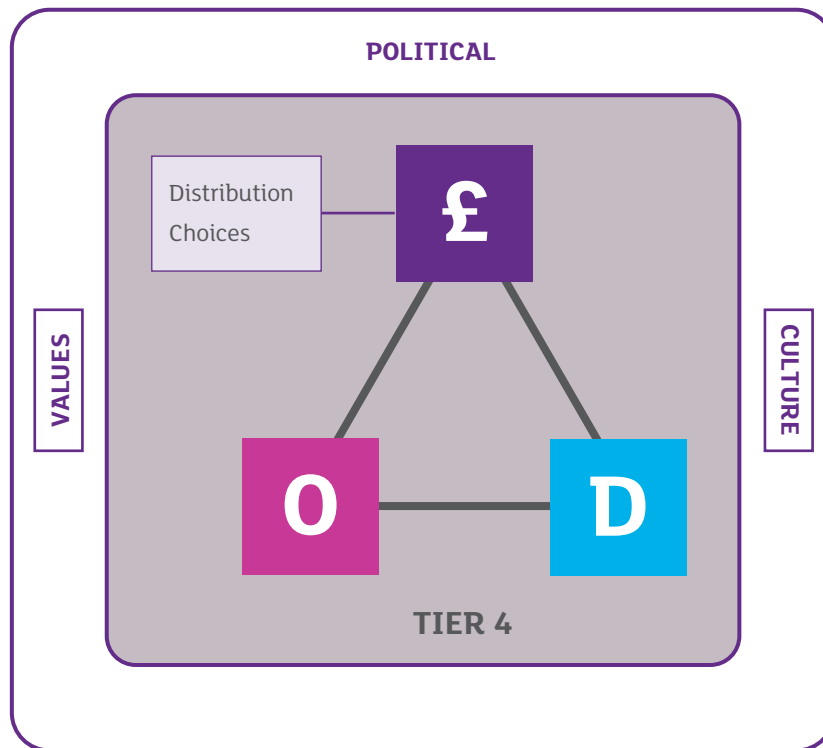
We did not find any specific relationship between better outcomes and the mechanism of distribution or indeed the level of resources applied. We did see systems which had adapted and have been capable of delivering improved public service.

What we have found overall was that there was a closer and more integrated link between political intentions (at Tier 2) with the budget choices made at a local level. High service quality (particular in relation to teachers in education) was evident.

But there must be a clear long-term strategic direction to be set out for local delivery bodies. Thereafter, it will be local delivery bodies which will have to move from the present state of equilibrium to ensure that their budget choices have a clear line of sight with set national priorities. Importantly, our culture, values and the political environment should be enabling features which must be had regard to rather than being viewed as barriers.

This leads us to conclude that, based on our evidence, the distribution mechanism for public funding itself whether at Tier 1 or Tier 2 matters less than the ability to be able to make the appropriate budget choices at Tier 3 and beyond. What this confirms is that the practical drivers for change will have to be developed not only at Tier 3 but also in the development of a more mature ‘budget choice’ mechanism at the as-yet unexamined Tier4 level.

It is at this level where the right choices will result in effective services resulting in a stronger link between distribution and outcomes.



So this is what we have found. What we now want to know is what you think. While we wait for you to join our conversation we propose positive action. CIPFA proposes, as the next part of this discussion to work with delivery bodies to help in the development of a local choice system which helps public bodies to better link their resources and activities to outcome priorities.

CIPFA invites you to participate in this conversation. You can contact CIPFA at the address listed at the start of this paper.



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