

# Transparency for Development: Examining the Relationship Between Budget Transparency, MDG Expenditure, and Results

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## Executive Summary

Case study findings suggest that countries with greater budget transparency spend public funds in more progressive ways. Theorists argue that greater budget transparency allows for better public engagement in the budget process, making politicians more sensitive to broad-based public interests such as those promoted by the Millennium Development Goal (MDG) agenda. Such literature also suggests that, in more transparent countries, higher spending can produce stronger MDG outcomes, as parliamentary and public engagement ensures that a higher proportion of promised funds are delivered to their intended destinations.

Using new datasets on public expenditure and budget transparency, this paper examines the relationship between transparency, budget allocations and MDG outcomes. It finds that:

- MDG expenditure tracking is more feasible in more transparent countries.
- The link between transparency and MDG spending allocations is complex. Across the whole sample, more transparent countries do not necessarily allocate higher shares of their budget to education, health, and water and sanitation (WASH) than less transparent countries. However, countries that have seen the biggest improvements in

transparency in the past decade have on average increased MDG spending more than countries that have not improved.

- Countries that are spending more on achieving the MDGs on average have better MDG outcomes, even after controlling for income per capita. However, when we break the results down by income group, these effects are weak. This may be due to data quality weaknesses.

This evidence indicates that the relationships between budget transparency, government spending, and MDG outcomes are not straightforward, and that other country conditions are likely to shape how they interact. Countries with improving budget transparency scores, however, appear to be those undergoing broader transformations, including improved allocative efficiency and strong MDG progress.

New data sources have been compiled that allow for a more systematic examination of budget transparency and spending outcomes than before. However, further investments in more and better data are needed. Current data sets are not yet lengthy, comprehensive, or detailed enough to examine change over a long time period or across a broad range of countries. Furthermore, spending categories are not sufficiently disaggregated to be linked strongly to the MDGs.

A major priority for the post-2015 Sustainable Development Goals (SDGs) framework should therefore be to improve budget transparency and the tracking of expenditure and outcomes related to the SDGs, as part of its proposed data revolution.

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## Acronyms

CGD	Center for Global Development
DFI	Development Finance International
EIU	Economist Intelligence Unit
GDP	Gross Domestic Product
GSW	Government Spending Watch
HIC	High-Income Country
HMIC	Higher-Middle-Income Country
IBP	International Budget Partnership
IFPRI	International Food Policy Research Institute
LIC	Low-Income Country
LMIC	Lower-Middle-Income Country
MDG	Millennium Development Goal
OBI	Open Budget Index
ODI	Overseas Development Institute
SDG	Sustainable Development Goal
SPEED	Statistics of Public Expenditure for Economic Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
WASH	Water and Sanitation and Hygiene
WDI	World Development Indicators
WHO	World Health Organisation

# 1 Introduction

As we near the end of the implementation period for the MDGs, the global development community is formulating a successor agenda embodied in a set of Sustainable Development Goals (SDGs). This framework, as its predecessor, aims to mobilize resources for a prioritized set of development purposes through increased and better targeted government spending and development assistance. To date, by far the biggest source of financing for MDG-related activities has come from domestic resources, primarily government revenue rather than aid. This trend that will likely continue in the post-2015 period.<sup>1</sup> At present, however, relatively few governments publish budget information that would allow the public or international actors to track spending on MDGs. It is important to increase transparency around resource flows for development in the post-2015 period, both for the purposes of evaluating the post-2015 agenda globally, and in order to generate domestic accountability for the achievement of goals.

With this in mind, civil society groups have advocated for the inclusion of a specific transparency and participation target among the SDGs. Such a target, it is argued, would improve the ability of stakeholders to monitor and influence national budget allocations and hold governments to account for investing in the areas that will lead to the achievement of the development goals.

To inform the debate about the value of transparency targets in the SDGs, this paper considers what the available quantitative evidence can tell us about the links between budget transparency, MDG spending patterns, and MDG outcomes. It also discusses data shortcomings for evaluating development spending and progress and makes a case for more investment in the production of budget data.

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<sup>1</sup> ICESDF. (2014). Report of the Intergovernmental Committee of Experts on Sustainable Development Financing, Final Draft. UNDESA: New York <http://sustainabledevelopment.un.org/content/documents/4588FINAL%20REPORT%20ICESDF.pdf>

## 2 Theoretical Framework

It makes intuitive sense that greater budget transparency would lead to better development outcomes. Governments that publish their budgets for all to see and discuss are, presumably, more likely to spend a greater share of resources on areas that the wider public care about – education, healthcare, WASH, for example – which also form the cornerstones of the MDGs. Greater spending on such services should in turn improve outcomes.

With more money available for MDG purposes the government can educate more children, ensure fewer mothers die in childbirth, and guarantee access to safe water and sanitation for greater numbers of people. In essence, budget transparency reduces what political economist call an information asymmetry: Budget information balances out what would otherwise be unequal access to information on budget spending between citizens (tax payers and voters) and politicians; in doing so it reduces the opportunity for politicians to serve narrow interest groups at the expense of the majority.

This paper investigates this argument by breaking it down into three narrower hypotheses that can be examined quantitatively:

1. Countries with more transparent budgets produce more usable expenditure data for tracking of MDG spending.
2. Countries with more transparent budgets see greater popular engagement in the budget process and therefore higher budget allocations for resources devoted to broad-based, poverty reducing services such as those addressed by the MDGs.
3. Countries that mobilize more public resources for MDG-related expenditure will on average perform better against the MDG targets and are more likely to be on track to achieve them.

Using correlation analysis, we consider whether more transparent countries produce better data for MDG tracking, whether greater transparency is correlated with the share of the budget dedicated to MDG sectors, and whether this in turn is associated with better MDG outcomes.

### 3 Literature Review

There are many examples from around the world of civil society groups that have taken advantage of budget transparency to successfully lobby governments for greater spending on social services. In Argentina, for instance, the Civil Association for Equality and Justice used budget information to inform a class action suit against the city for failing to provide early childhood schooling for all eligible children.<sup>2</sup> In Tanzania, the civil society organization HakiElimu used budget analysis to lobby for improvements in the education sector, by directly advocating for changes in spending and by training Members of Parliament to hold the executive to account by querying budget decisions.<sup>3</sup> Similar studies have shown how increased transparency contributed to higher spending allocations on: Agriculture in Ghana and Nigeria; education in Burkina Faso, Dominican Republic, India, Korea and Malawi; health in Armenia, Korea, Sierra Leone, South Africa and Zambia; maternal health in Mexico; social protection in South Africa; and WASH in Sierra Leone.<sup>4</sup>

Notwithstanding these examples of the social impact of budget transparency, research suggests that transparency alone is rarely sufficient for improving public participation in the budget process. A recent study of the political economy of budget transparency cites examples where improvements in budget transparency did not find ready users of budget information for advocacy purposes.<sup>5</sup> Enabling factors, such as space for civil society actors to engage with the budget process or a free and fair media, may be necessary preconditions for transparency to improve accountability. A further, and arguably simple, condition that may need to be met is

<sup>2</sup> Basch, F. (2011). Children's Right to Early Education in the City of Buenos Aires: A Case Study on ACIJ's Class Action. Washington D.C.

<sup>3</sup> Carlitz, R., & McGee, R. (2013). Raising The Stakes: The Impact of HakiElimu's Advocacy Work on Education Policy and Budget in Tanzania. Washington D.C.

<sup>4</sup> Armenia, <http://governmentspendingwatch.org/campaigns-and-advocacy/health>; Burkina Faso, <http://www.campaignforeducation.org/docs/CSEF>; Dominican Republic, [www.governmentspendingwatch.org/campaigns-and-advocacy/education](http://www.governmentspendingwatch.org/campaigns-and-advocacy/education); Mexico and South Africa social protection, Robinson, M. (2006), *Budget Analysis and Policy Advocacy: The Role of Non-Governmental Public Action*, IDS Working Paper 279, Brighton: IDS; India education, <http://www.governmentspendingwatch.org/campaigns-and-advocacy/education>; Korea, Lee and You (2013), *Country Report: South Korea*, report commissioned by the Global Initiative for Fiscal Transparency; on Sierra Leone, <http://www.governmentspendingwatch.org/campaigns-and-advocacy/water-and-sanitation>; and on South Africa health, <http://internationalbudget.org/publications>. For Ghana, <http://www.aceplive.com/wp-content/uploads/2014/08/ACEP-Report-PRMA-Final.pdf>; for Zambia, <http://policy-practice.oxfam.org.uk/publications/a-healthy-influence-how-oxfam-convined-partners-to-influence-zambias-elections-302290>; Malawi, <http://internationalbudget.org/wp-content/uploads/Civil-Society-Coalition-for-Quality-Basic-Education-Carries-Out-Public-Expenditure-Tracking-Surveys-in-Malawi.pdf>

<sup>5</sup> Khagram, S., De Renzio, P., & Fung, A. (2013). The Political Economy of Fiscal Transparency, Participation, and Accountability around the World. In S. Khagram, P. De Renzio, & A. Fung (Eds.), *Open Budgets: The Political Economy of Transparency, Participation, and Accountability*. Washington D.C.: Brookings Institution Press.

that transparency actually leads to the publication of the kind of data that civil society can make use of. A recent study by the Overseas Development Institute (ODI) and the International Budget Partnership (IBP), found a considerable gap between the publication of information and the usability of such information for basic budget tracking.<sup>6</sup>

Another relevant consideration is whether greater popular demands on the government necessarily favor MDG spending.<sup>7</sup> Depending on the context, the public may well prefer more spending on roads, electricity, or a stronger police force, over investments in MDG-related sectors. Nor is it always clear where the optimal threshold for MDG spending should be: What constitutes enough spending on, for example, maternal health or primary education?

Various organizations have set sectoral spending targets and sought to get governments to commit to meeting them: The Abuja Declaration commits governments to spending 15 percent of expenditure on health; the Education for All initiative seeks to mobilize 20 percent of government expenditure for education. However, such targets were developed by individual sector lobby groups working in silos, without consideration for their combined impact on spending. As Hagen-Zanker and McCord have shown, in many low-income countries the existing international development spending targets add up to more than 100 percent of total expenditure.<sup>8</sup> Some budget specialists have argued against the notion of optimal sectoral budget shares, emphasizing that public spending needs are context specific and should be determined at the national level through a political bargaining process rather than a technocratic calculation.<sup>9</sup>

Lastly, the relationship between spending and development outcomes is not straightforward. Researchers have examined many different stages of the spending cycle and identified multiple

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<sup>6</sup> De Renzio, P., & Simson, R. (2013). Transparency for what? The usefulness of publicly available budget information in African countries. London and Washington D.C. <http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/8754.pdf>

<sup>7</sup> This is discussed in Simson, R. (2012). Following the money: Examining the evidence on “pro-poor” budgeting. London. <http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/7709.pdf>

<sup>8</sup> Hagen-Zanker, J., & McCord, A. (2011). The feasibility of financing sectoral development targets. London. <http://www.odi.org/publications/5151-social-protection-finance-spending-targets>

<sup>9</sup> Fozzard, A. (2001). The Basic Budgeting Problem: Approaches to Resource Allocation in the Public Sector and their Implications for Pro-Poor Budgeting. London. <http://www.odi.org/publications/1395-basic-budgeting-problem-approaches-resource-allocation-public-sector-their-implications-pro-poor-budgeting>



reasons why spending may not translate into outcomes at the same rate in all countries.<sup>10</sup> Such research suggests that MDG outcomes depend not only on sectoral budget allocations, but on a range of other factors. These include: formulation of realistic budget targets and spending plans; strong systems for executing the budget, including transparent and rules-based procurement processes and payroll management; robust accounting practices and timely in-year and end-of-year budget reporting; and an external audit process underpinned by parliamentary oversight. Transparency, public participation, and accountability are important at all stages of this cycle.<sup>11</sup>

Although this body of theoretical literature and case study evidence contributes to our understanding of how transparency may affect change, few studies have examined whether such findings are generalizable using cross-country analysis. One exception is an IBP working paper from 2011, which uses the IBP Open Budget Index to examine the relationship between budget transparency and development outcomes.<sup>12</sup> After controlling for per-capita gross domestic product (GDP) and region, the authors find a statistically significant effect of budget transparency on infant and child survival, access to improved drinking water, and health expenditure levels, albeit without controlling for general governance quality. In support of this paper's second hypothesis, that greater spending improves MDG outcomes, a recent report by ONE on MDG financing in Africa provided some data that suggest countries that are on track to meet MDGs in education, health and agriculture on average spend a greater share of resources on said targets.<sup>13</sup> Similarly a report by Government Spending Watch that considers expenditure trends over the past five years, argues that since 2008 spending increases on MDG sectors have helped to explain the rapid progress made towards the MDGs in recent years.<sup>14</sup>

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<sup>10</sup> See basic literature on public expenditure management such as: Allen, R., & Tommasi, D. (2001). *Managing Government Expenditure: A Reference Book for Transition Countries*. Paris: OECD & SIGMA.

<sup>11</sup> See African Development Bank. (2009). *Debt Relief Initiatives, Development Assistance and Service Delivery in Africa*. Oxford: Oxford University Press; Development Finance International. (2014). *Investment in Children: a Global Policy Report for Save the Children*. London; McGee, R., & Gaventa, J. (2011). *Synthesis report: Review of impact and effectiveness of transparency and accountability initiatives*. London;

<sup>12</sup> Fukuda-Parr, S., Guyer, P., & Lawson-Remer, T. (2011). *Does Budget Transparency Lead to Stronger Human Development Outcomes and Commitments to Economic and Social Rights?*

<sup>13</sup> ONE. (2013). *The 2013 Data Report: Financing the fight for Africa's transformation*. [http://one-org.s3.amazonaws.com/us/wp-content/uploads/2013/05/ONE\\_DataReport\\_2013\\_Summary.pdf](http://one-org.s3.amazonaws.com/us/wp-content/uploads/2013/05/ONE_DataReport_2013_Summary.pdf)

<sup>14</sup> DFI and Oxfam. (2013). *Putting progress at risk?: MDG spending in developing countries*. London. [http://www.oxfam.org/sites/www.oxfam.org/files/file\\_attachments/putting-progress-at-risk-mdgs-160513-sum-en\\_0.pdf](http://www.oxfam.org/sites/www.oxfam.org/files/file_attachments/putting-progress-at-risk-mdgs-160513-sum-en_0.pdf)

These cross-country studies are valuable contributions to the literature, but they still provide only a partial understanding of how transparency may be influencing budget allocations and thereby spending outcomes. The authors themselves note that data limitations constrained the scope of their analysis. Recently published data now allow us to begin to examine such relationships in greater depth, thereby shedding further light on whether case study findings linking transparency and development outcomes are generalizable across a broader range of countries.

#### **4 Measuring Budget Transparency, Spending and Results**

A lack of basic development data continues to pose a challenge to the evaluation of the MDG agenda. However, a number of new or recently updated databases have increased the opportunities for quantitative analysis of the links between transparency and development. For the purposes of this study, we draw on a recently constructed Government Spending Watch (GSW) database on MDG spending, developed by Development Finance International (DFI) and Oxfam.<sup>15</sup> The GSW database brings together better vetted and more detailed MDG expenditure data for 70 countries from 2008 to 2013, and is designed specifically for country comparisons.

We also draw on an updated version of the International Food Policy Research Institute's (IFPRI) Statistics of Public Expenditure for Economic Development (SPEED) database.<sup>16</sup> This contains sectoral expenditure data for 80 countries up to 2010. IBP's Open Budget Index (OBI), which ranked 100 countries in 2012, provides a comparable measure of budget transparency.<sup>17</sup>

While these data sources improve our ability to conduct cross-country analysis of transparency and expenditure, they still present various shortcomings (discussed below) which may influence the reliability of our results.

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<sup>15</sup> See <http://www.governmentspendingwatch.org/>

<sup>16</sup> See <http://www.ifpri.org/book-39/ourwork/programs/priorities-public-investment/speed-database>

<sup>17</sup> See <http://internationalbudget.org/what-we-do/open-budget-survey/>

## 4.1 Transparency

The OBI is used to measure budget transparency. This index is compiled every two years based on a survey of the public availability of budget documentation. Countries are scored from 0 to 100 based on an average of 95 questions related to the availability, content, and timeliness of the publication of eight key budget documents. We primarily draw on the OBI 2012, which scored 100 countries. However, results have also been tested using earlier surveys (2006, 2008 and 2010).

Holding the sample of countries constant, the average OBI score has been increasing by 1 to 2 points between surveys. This suggests a gradual global improvement in budget transparency over the past decade, albeit with considerable variation across countries. Roughly half of the countries covered by the OBI are low-income countries (LICs) or lower middle-income countries (LMICS), our sample of interest.

**Table 1. Summary Statistics, Open Budget Index 2006 - 2012**

Variable	Obs	Mean	Std. Dev.	Min	Max	Mean 2006 samp.*	Number of observations			
							LIC	Variable	Obs	Mean
<b>obi_2012</b>	100	42.7	24.2	0	93	51.5	21	26	31	22
<b>obi_2010</b>	93	42.6	24.4	0	92	49.7	16	26	30	21
<b>obi_2008</b>	84	40.2	25.0	0	88	47.9	14	25	29	16
<b>obi_2006</b>	59	46.0	22.2	3	89	46.0	8	20	19	12

Notes: Low-income country (LIC); lower middle-income country (LMIC); upper middle-income country (UMIC); high-income country (HIC).

The OBI is correlated with GDP per capita ( $R=0.37$ ,  $p < 0.05$ ) and quality of governance. Table 2 shows correlations with various governance indices, and demonstrates a strong association between OBI scores and democratic governance ( $R=0.72$ ,  $p < 0.05$ ); the enabling environment for civil society ( $R=0.74$ ,  $p < 0.05$ ); and the Worldwide Governance Indicator measure of voice and accountability ( $R=0.75$ ,  $p < 0.05$ ). In other words, all good things seem to come together; on average relatively richer and better governed countries have better OBI scores.

**Table 2. Correlation Between OBI and Other Governance Indices and GDP per capita**

	EIU Democracy index 2012	Civicus Enabling Environment Index	WGI Voice and Accountability 2012	GDP per capita (intl. \$), ln, 2012
OBI 2012	0.72	0.74	0.75	0.37
<i>Sig</i>	0.0	0.0	0.0	0.0
<i>Obs</i>	90	77	99	97
P-value < 0.05				

#### 4.2 MDG Budget Data Availability

While the OBI provides a useful measure of the availability of budget data in the public domain, it is not necessarily a measure of the quality of data available for MDG tracking purposes. We therefore also consider an alternative measure of the availability of government budget information, developed by DFI, which rates 95 countries from 1 to 7 depending on the availability and level of detail of budget data. It does so according to the following criteria:

1. Documents not accessible
2. Ministry level data
3. Sector breakdown
4. Sub-ministry/agency data
5. Sector/sub-sector breakdown
6. Project level/program budgeting
7. Program budgets with outcome data

### 4.3 MDG Expenditures

Among the eight MDG goals, 18 targets, and 48 indicators, only a small subset are amenable to expenditure tracking. For the purpose of this study, we focus on those related to education, health and WASH. These are among the more commonly cited MDG targets, and because of the clear relationship with public spending are also ones that have received serious donor attention.

In order to track resources devoted to MDG spending, we would ideally want to isolate items directly related to the production of the services aimed to achieve the relevant MDG. For cross-country comparisons it would also be important that countries abide by common definitions of such spending categories. Few governments produce expenditure data organized in such ways and no standard MDG-related spending definitions exist. Therefore, we use wider expenditure categories, drawing on the UN Classification of Functions of Government (COFOG), to serve as proxies for MDG spending. Table 4 shows what an ideal expenditure measure for the relevant MDG indicators would look like and what proxy we use instead, given the available budget data.

**Table 4. MDG Indicators and Corresponding Expenditure Measures**

MDG indicator	Ideal expenditure measure	Proxy
Goal 2: Achieve Universal Primary Education 6. Net enrolment ratio in primary education 7. Proportion of pupils starting grade 1 who reach grade 5	Primary education expenditure	Basic education expenditure (primary and secondary combined), or total education expenditure
Goal 4: Reduce Child Mortality 13. Under-five mortality rate 14. Infant mortality rate	Basic primary healthcare and reproductive health expenditure	Total health expenditure
Goal 5: Improve Maternal Health 16. Maternal mortality ratio	Reproductive health expenditure	Total health expenditure
Goal 7: Ensure Environmental Sustainability 30. Proportion of population with sustainable access to an improved water source, urban and rural 31. Proportion of population with access to improved sanitation, urban and rural	Expenditure on rural and urban water supply Expenditure on sanitation	Total expenditure related to water and sanitation

A second choice is how to measure expenditures: In absolute levels per capita; as a share of GDP; or as a share of total expenditure? As our interest is in investigating whether governments

allocate more funds towards MDG purposes as a result of having more open budgets, rather than the relationship between overall levels of MDG expenditure and the OBI (which is highly sensitive to the wealth of the country), we use budget share as our primary indicator. A problem with such a measure is that budget shares can fluctuate quite considerably from year to year. For instance, a major loan-financed infrastructure project can bring down the MDG expenditure shares even though spending levels stay constant. Therefore, for control purposes, we also use alternative spending measures in the analysis, including looking at spending as a share of GDP and spending per capita.

Two data sets provide comparable expenditure data for a relatively large samples of countries. The SPEED database includes sectoral expenditure outturns for the education, health, agriculture and social protection as a share of total expenditure. The data is taken from publications by the International Monetary Fund (IMF) and national sources. It does not break down spending by recurrent/capital nor by sub-sector. It captures both government spending and aid on budget.

A weakness with this data is that, where IFPRI has been unable to find general government spending, central government spending is reported instead. This may distort the results. Possibly for this reason, sectoral budget shares vary widely: For education expenditure, between 2 and 25 percent; for health, between 1 and 18 percent (see table 5 below). Several of the low education and health spenders are large federal states (such as India and Pakistan), which suggests sub-national government sectoral expenditure may not have been captured.

We use the latest data available (from 2010), which covers roughly 80 countries. This database covers countries of all income levels, but most of the observations are for upper middle-income countries (UMICs) and high-income countries (HICs), i.e., not the types of countries targeted by the MDG agenda. Only 20 of the countries are LICs and LMICs.<sup>18</sup>

**Table 5. Summary Statistics, SPEED 2010**

Variable	Obs	Mean	Std. Dev.			Number of observations			
				Min	Max	LIC	LMIC	UMIC	HIC

<sup>18</sup> Income group definitions taken from the World Bank.

Education exp, % of total exp	81	12.6	5.2	1.9	24.6	8	12	22	39
Health exp, % of total exp	81	9.4	4.6	0.9	17.8	8	12	22	39
Education exp, % of GDP	81	4.2	2.0	0.4	8.3	8	12	22	39
Health exp, % of GDP	81	3.5	2.6	0.2	8.5	8	12	22	39
Education expenditure, pc, constant 2005 PPP	82	824.7	852.4	8.4	3559.1	8	13	22	39
Health expenditure, pc, constant 2005 PPP	82	833.9	1007.1	4.1	3511.6	8	13	22	39

As SPEED provides time series data from 1980, we can also examine how expenditure shares and per capita spending in MDG sectors have performed over the MDG period. As a share of total expenditure, education and health expenditure has barely increased between the early 1990s and late 2000s (an average increase of 0.1 percent and 0.9 percent respectively), although the gains are slightly larger for LICs and LMICs than for UMICs. Furthermore, the standard deviations are very large, showing a huge variation in change; many countries saw education and health shares drop over this period. In contrast, education and health spending in real per capita terms has increased considerably in most countries, given strong economic growth and therefore growth in revenues. The average country saw per capita spending on education and health increase by 82 percent and 134 percent respectively over this period, albeit with massive variation. The growth was weaker for LICs than for MICs owing to lower per capita growth rates.

**Table 6: Change in Education and Health Expenditure by Income Group, 1990-2010**

	All			LICs			LMICs			UMICs		
	Obs	Mean	S.d.	Obs	Mean	S.d.	Obs	Mean	S.d.	Obs	Mean	S.d.
Education share increase	59	0.1	7.5	9	0.5	8.1	23	0.9	8.7	27	-0.6	6.3
Health share increase	59	0.9	4.1	9	1.3	3.9	23	1.1	3.3	27	0.6	4.9
Education, real per capita spending % increase	59	82	145	9	67	140	23	97	195	27	74	91
Health real per capita spending % increase	58	134	222	9	99	208	22	104	172	27	170	261

Notes: \*Increase measured by comparing the average scores for 1990-94 with those from 2005-10.

The second source of expenditure data is the Government Spending Watch database, a new database designed to collect data for monitoring MDG spending. It includes low- and lower middle-income countries. It allows us to track sectoral expenditure shares between 2008 and

2013 for education, basic education, health and WASH. For the purpose of this analysis we use data from 2012 for best comparability with the OBI.

While the database collects both budgeted and actual expenditure figures, the coverage is considerably better for budgeted figures and they therefore form the basis of the analysis. If anything this should bias our results upwards – we’d expect a stronger association between budget transparency and budgeted expenditure, than budget transparency and budget actuals.

As Table 7 shows, the sample size varies by sector: Education expenditures are available for 61 countries; while WASH expenditure can only be measured for 28 countries. Expenditure shares vary considerably, although not as dramatically as for the SPEED sample, probably because GSW has managed to capture both central and decentralized spending. We also consider sectoral spending per capita in US dollars (USD); however, these expenditures are not adjusted for purchasing power parity, so cross-country comparisons should be treated cautiously. Furthermore, the majority of countries covered are LICs and LMICs, as a result aid contributes considerably to total expenditure in many sample countries, which may also influence comparability.

**Table 7. Summary Statistics, Government Spending Watch 2012**

Variable	Obs	Mean	Std.			Number of observations			
			Dev.	Min	Max	LIC	LMIC	UMIC	HIC
Education exp, % of total exp	61	16.5	4.6	5.7	32.5	28	24	9	
Primary and secondary education exp, % of total exp	38	11.6	3.8	4.0	19.9	13	16	9	
Health exp, % of total exp	52	9.0	3.5	3.7	20.9	28	21	3	
WASH exp, % of total exp	28	3.0	2.3	0.1	8.6	17	10	1	
Education expenditure, pc, constant US\$	50	60.9	69.1	0.2	339.9	28	20	2	
Health expenditure, pc, constant US\$	50	39.1	54.6	0.1	237.2	28	20	2	
WASH expenditure, pc, constant US\$	28	12.2	21.5	0.1	106.3	17	10	1	

Countries included in both the GSW and SPEED samples have a strong, although not perfect, correlation. SPEED figures are generally lower (probably because they capture a smaller share of aid and/or sub-national government spending) and there are several outliers. Because of these differences, the two sets of data are analyzed separately. SPEED provides a useful global



overview of the transparency and expenditure relationships, while the GSW database allows us to drill down to our units of interest – low- and lower middle-income countries.

#### 4.4 MDG Outcomes and Progress

MDG outcome data (such as primary school enrolment, child mortality rates, etc.) is taken from the World Development Indicators (WDI) database. WDI data availability varies by indicator: Primary enrolment data is available for 125 countries; while water access data is available for 190. High-income and higher middle-income countries are overrepresented in the sample compared to lower income groups. The mean calculations are relatively high, which signal some potential problems with linking outcomes to spending. Roughly 65 percent of all countries in the sample already have primary enrolment and completion rates and access to water rates of above 90 percent. In such countries we’d expect outcomes to be less sensitive to spending, as spending is likely aimed at other goals than merely improving access.

**Table 8. Summary Statistics, MDG Outcomes**

Variable	Obs	Mean	Std. Dev.	Min	Max	Number of observations			
						LIC	LMIC	UMIC	HIC
Primary enrolment (%)	125	90.2	10.8	30.0	100.0	17	32	29	47
Primary completion (%)	131	88.8	18.1	31.3	115.7	23	36	31	41
Mortality, children under 5, per 10,000	192	39.7	42.1	2.5	192.6	34	49	54	55
Mortality, maternal, per 100,000	183	182.6	242.2	2.0	1200.0	34	49	49	51
Improved water source (% of population with access)	190	87.8	15.5	31.5	100.0	33	48	50	59
Improved sanitation facilities (% of population with access)	185	72.1	30.0	8.6	100.0	33	47	50	55

Source: World Development Indicators (WDI) database 2006

The WDI contains time series data back to 1960, although data coverage in the earlier periods is worse. This allows us to test the presumption underlying MDG spending research; that outcomes have indeed improved over the MDG period. Table 9 compares MDG target status in 1990 (or the closest year available) with status in 2010, disaggregated by income group. It shows considerable improvements in primary enrolment, child and maternal mortality, and access to safe water. Countries in lower income groups gained more than ones in higher income groups (both in relative and absolute terms).

**Table 9. MDG Outcome Performance in 1990 and 2010, by Income Group**

		All	LICs	LMICs	UMICs	HICs
Primary enrollment	2010	91	75	89	94	97
	1990*	83	44	79	91	96
Child mortality	2010	40	96	53	24	8
	1990*	72	173	93	46	18
Maternal mortality	2010	183	518	228	73	21
	1990*	341	970	415	131	53
Access to improved water source	2010	88	74	84	92	97
	1990*	80	51	68	88	98

Notes: \* Or closest year available

In sum, these five datasets provide country-level measures of budget transparency, MDG data availability, MDG sector spending, and MDG outcomes. The best data coverage is for recent years (2010 to 2012), which restricts the analysis primarily to cross-country comparisons in those years. To the extent that we can examine change over the MDG period, most of our indicators show some improvement. On average, budget transparency has improved modestly since the mid-2000s. Average government MDG spending has remained relatively constant as a share of total government expenditure, but has increased on a per capita basis as countries have grown richer. Average MDG outcomes have improved considerably since 1990, particularly in low- and middle-income countries.

## **5 Relationships Between Budget Transparency, MDG Spending and Results**

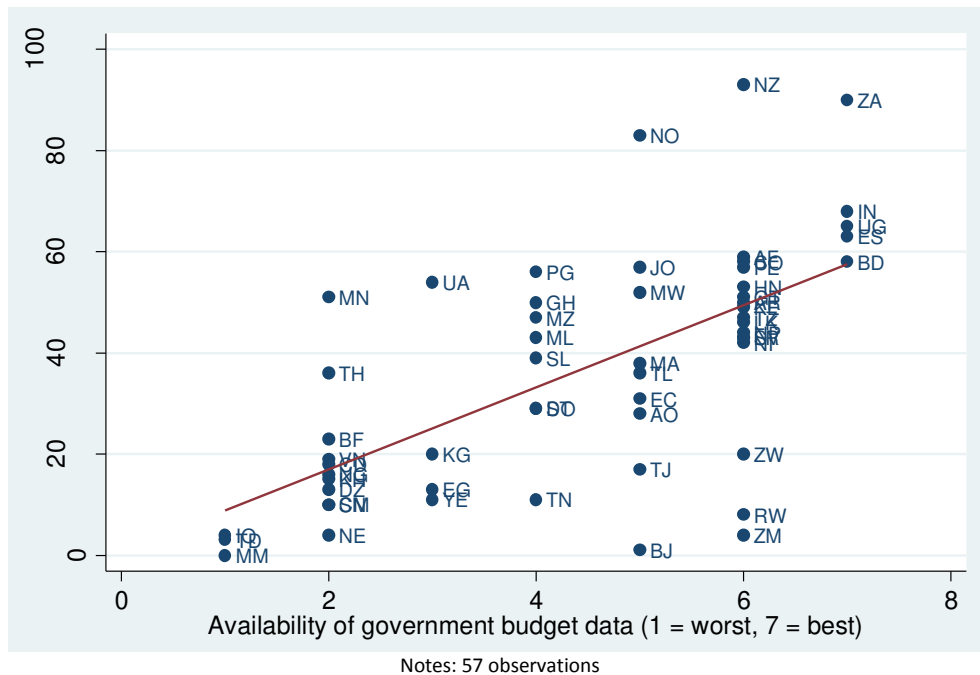
Using these data sources, the following section considers three relationships:

- whether greater transparency is associated with better production of MDG data;
- whether this in turn is associated with higher spending on MDG sectors; and
- whether higher spending is associated with better MDG outcomes.

### 5.1 Are Countries with More Transparent Budgets Better Producers of MDG-Related Expenditure Data?

The OBI and the DFI measures of budget data availability enable us to test whether more transparent countries produce more usable expenditure data for tracking MDG spending. The results are encouraging. There is a strong correlation between the OBI and the GSW measure of government budget data availability ( $R = 0.64$ ,  $p < 0.05$ ; see Figure 1). Controlling for GDP per capita does not weaken this association. This suggests that more transparent countries are on average also countries that produce better MDG tracking data. All else being equal, promoting budget transparency would likely improve our ability to track spending.<sup>19</sup>

**Figure 1. Comparison of OBI 2012 Score with Availability of Government Budget Data for MDG Tracking (DFI Classification)**



### 5.2 Do Countries With More Transparent Budget Spend More on MDG Sectors?

Using our measures of transparency and budget data availability, we can now test whether these indicators predict MDG-sector expenditure performance. We test whether more

<sup>19</sup> Provided of course that the focus on budget transparency doesn't change government behavior and lead to gaming strategies.

transparent countries spend a higher share of their budgets on MDG sectors; first using a global country sample and subsequently a LIC/LMIC sample.

### **Transparency and MDG Expenditure Globally**

We find no significant positive correlation between budget transparency and the share of the budget dedicated to MDG sectors. The correlation matrix below shows pairwise correlations between country OBI scores and education and health expenditure in 2010, as a proportion of expenditure, proportion of GDP, and on a per capita basis. Our main interest is in rows 1 and 2 which measure sectoral budget shares. These provide a better measure of how governments have chosen to prioritize spending. Surprisingly, the correlation coefficient between the OBI and education spending is negative – less transparent countries spend comparatively more on education as a share of total expenditure. In contrast, the correlation for health is positive. However, we also consider correlation between GDP per capita (column 3), which is strongly positive and significant for health. This suggests that the positive correlation with the OBI may well be an income effect: Relatively richer countries spend a higher share of their budgets on health and also score higher on the OBI. Running regression models with GDP per capita show this to be the case – the positive correlation between the OBI and health spending per capita loses its significance. The same holds true when health spending as a share of GDP is the response variable.

The correlation between the OBI and per capita spending (in constant purchasing power parity terms) on education and health are both positive and significant. However, this also appears to be driven by the inclusion of high income countries that spend more and have more open budgets. In columns 4, 5 and 6, HICs are excluded from the sample and the correlation coefficients lose their significance. In column 2, we examine the correlation between budget data availability and MDG spending. These coefficients are not significant in any specification – there is no observable association between production of better budget data and MDG spending.

**Table 10. Correlation Between OBI, Budget Data Availability and MDG-Sector Spending, SPEED 2010**

	All income groups			LICs and MICs		
	OBI 2012	Budget data availability	GDP pc (intl \$, ln, 2010)	OBI 2012	Budget data availability	GDP pc (intl \$, ln, 2010)
Education exp as % of total exp	<b>-0.35</b>	-0.21	-0.19	<b>0.44</b>	-0.19	-0.22
<i>P-value</i>	0.01	0.28	0.09	0.01	0.37	0.15
<i>Obs</i>	52	27	81	33	24	42
Health exp as % of total exp	<b>0.40</b>	0.11	<b>0.46</b>	-	-0.10	0.08
<i>P-value</i>	0.00	0.58	0.00	0.34	0.64	0.60
<i>Obs</i>	52	27	81	33	24	42
Education exp as % of GDP	0.02	-0.09	<b>0.23</b>	<b>0.42</b>	-0.18	-0.08
<i>P-value</i>	0.90	0.66	0.04	0.02	0.39	0.62
<i>Obs</i>	52	27	81	33	24	42
Health exp as % of GDP	<b>0.48</b>	0.20	<b>0.53</b>	-	-0.06	0.17
<i>P-value</i>	0.00	0.32	0.00	0.37	0.78	0.28
<i>Obs</i>	52	27	81	33	24	42
Education exp per capita (2005 PPP)	<b>0.35</b>	0.17	<b>0.74</b>	-	-0.17	<b>0.65</b>
<i>P-value</i>	0.01	0.39	0.00	0.27	0.42	0.00
<i>Obs</i>	52	28	82	33	25	43
Health exp per capita (2005 PPP)	<b>0.52</b>	0.20	<b>0.67</b>	0.10	-0.08	<b>0.56</b>
<i>P-value</i>	0.00	0.30	0.00	0.59	0.72	0.00
<i>Obs</i>	52	28	82	33	25	43
<b>p &lt; 0.05</b>						

### Transparency and MDG Sector Expenditure

The new GSW database allows us to consider these relationships using a larger sample of LICs and LMICs. These are the main intended beneficiaries of the MDG framework and therefore the countries where any relationship between transparency and MDGs should be the most pronounced. For this sample, we also have a more disaggregated measure of education

expenditure, covering both primary and secondary schooling; as well as an additional measure of WASH spending.<sup>20</sup>

Rows 1 to 4 in Table 10 show the correlations between OBI scores and the shares of expenditure devoted to MDG sectors. The correlation coefficients are weaker than those for the global sample and none of the relationships are significant (at 0.05 level). As in the previous sample, education, primary education and WASH budget shares have a weak negative correlation with OBI scores, while health spending is positively correlated but insignificant.

The budget data availability indicator performs no better; there is no significant correlation between it and any of the measures of MDG expenditure. In rows 5 to 7, we also include per capita spending levels. These are not correlated with the OBI or budget data availability either, although this may be because they have not been adjusted to purchasing power parity.

**Table 11. Correlation Between OBI Score, Budget Data Availability, and MDG Expenditure for LICs and LMICs**

	OBI 2012	Budget data availability	GDP pc (intl \$, ln, 2012)
Education exp as % of total exp	-0.09	0.16	-0.08
<i>P-value</i>	0.64	0.27	0.60
<i>Obs</i>	31	52	50
Basic education exp as % of total exp	-0.38	-0.29	0.02
<i>P-value</i>	0.10	0.13	0.92
<i>Obs</i>	20	29	27
Health exp as % of total exp	0.03	0.08	0.06
<i>P-value</i>	0.89	0.60	0.71
<i>Obs</i>	29	49	47
WASH exp as % of total exp	-0.12	-0.20	0.03
<i>P-value</i>	0.66	0.33	0.89
<i>Obs</i>	15	27	25
Education exp per capita (US\$)	0.07	-0.12	<b>0.52</b>
<i>P-value</i>	0.71	0.42	0.00
<i>Obs</i>	28	48	46
Health exp per capita (US\$)	0.11	-0.13	<b>0.47</b>
<i>P-value</i>	0.56	0.36	0.00
<i>Obs</i>	28	48	46
WASH exp per capita (US\$)	-0.12	-0.01	<b>0.43</b>
<i>P-value</i>	0.66	0.96	0.03
<i>Obs</i>	15	27	25

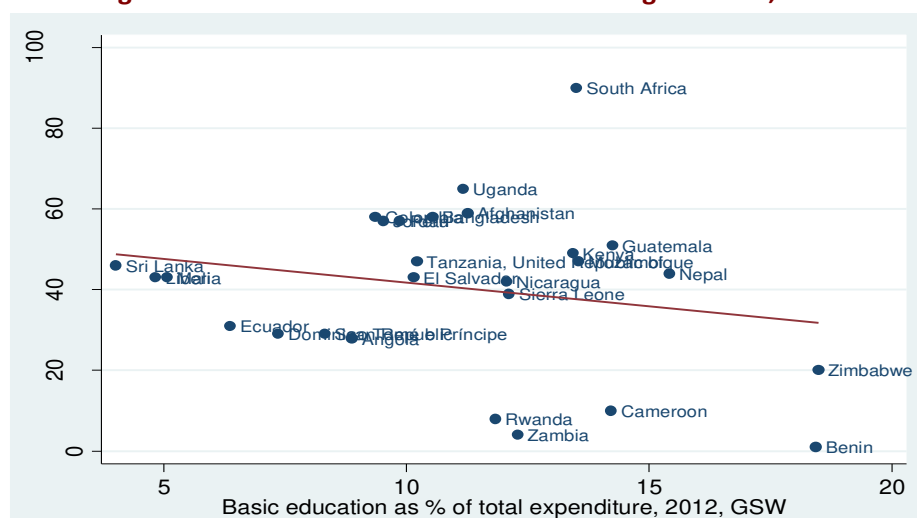
<sup>20</sup> The database also breaks down spending by recurrent and capital shares. Recurrent shares have also been tested but as the results are consistent with those for total expenditure they are shown.

$p < 0.05$

Source: Government Spending Watch database 2012

The negative correlation between education budget shares and transparency is puzzling and deserves further attention. It appears that many poor countries spend a considerable share of their resources on education irrespective of the quality of governance or the political regime. Figure 2 shows the relationship between OBI scores and basic education expenditure shares. The best fit line is pulled downwards by a number of countries in the lower right-hand quadrant with very high education expenditure shares yet poor OBI scores, this includes Zimbabwe, Benin, Cameroon, Rwanda and Zambia.

**Figure 2. OBI Scores and Basic Education Budget Shares, 2012**



These results fail to support of our hypothesis that countries with greater budget transparency spending a higher proportion of resources on MDG-related sectors, such as basic education. However, the lack of correlation between transparency and MDG budget shares does not conclusively refute it. The indicators we use to measure MDG spending are blunt and the data quality hard to verify; it is possible that better measures or use of other control variables would reveal a stronger association. Furthermore, as discussed above, research suggests that transparency and MDG spending is conditional on other factors – civil society space, public participation in the budget process, or government leadership and technical capacity, for instance. The sample sizes are too small to control for these factors in this analysis. More

careful specification of the causal relationship between transparency and spending, and more control variables, may reveal associations that we are unable to deduce at the aggregate level.

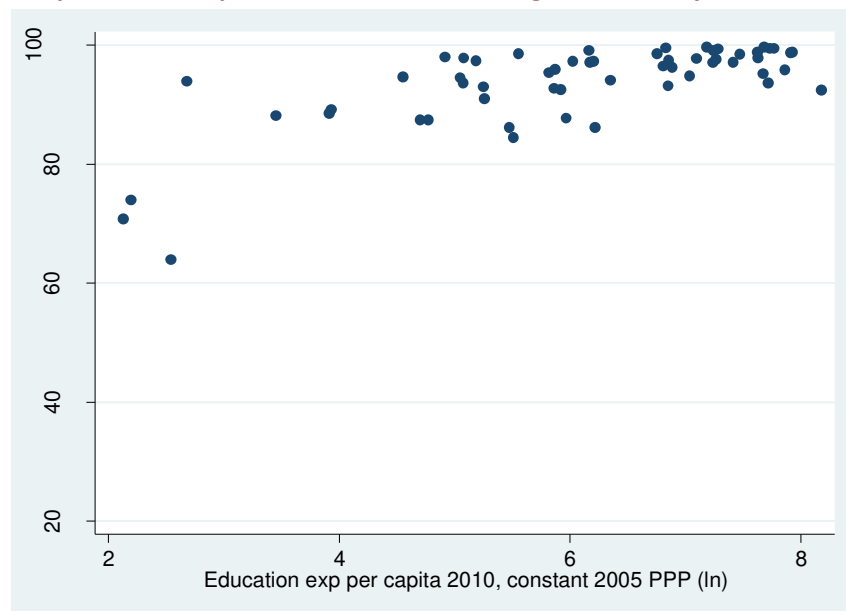
### 5.3 Do Countries That Spend Comparatively more on MDG Sectors Perform Better Against MDG Targets?

This last section considers the link between spending and outcomes, which is a critical link in the theory of change underlying the MDG agenda. If budget transparency has a positive effect on development outcomes, it is presumably because greater government allocations for MDG purposes lead to better outcomes.

#### Do Countries That Spend More on MDG Sectors Per Capita Have Better MDG Outcomes?

At the global level, there is a strong relationship between government spending and MDG outcomes. The scatter plots below show sectoral expenditure and status of corresponding MDG indicators at country level, drawing from both the SPEED and the WDI databases.

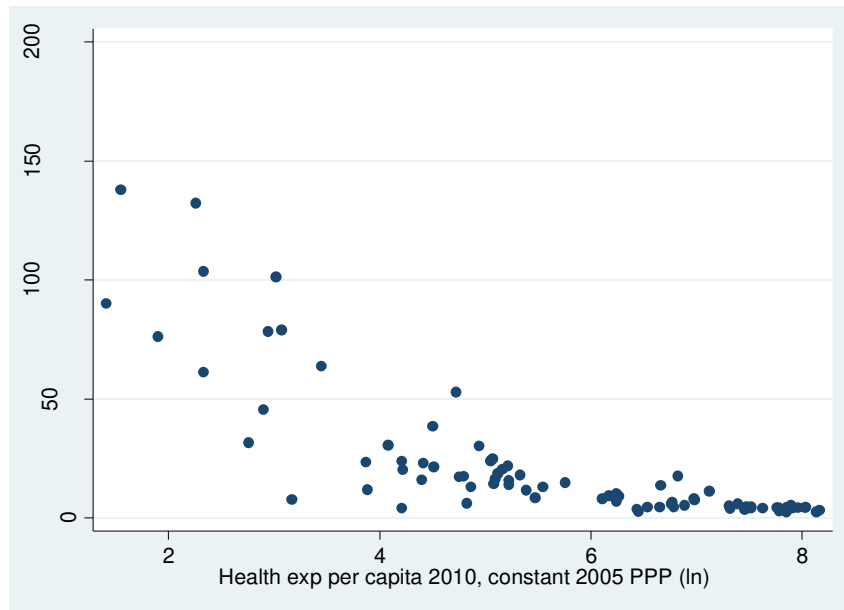
**Figure 3. Per Capita Public Expenditure on Education Against Primary School Enrolment, 2010**



Notes: 58 observations

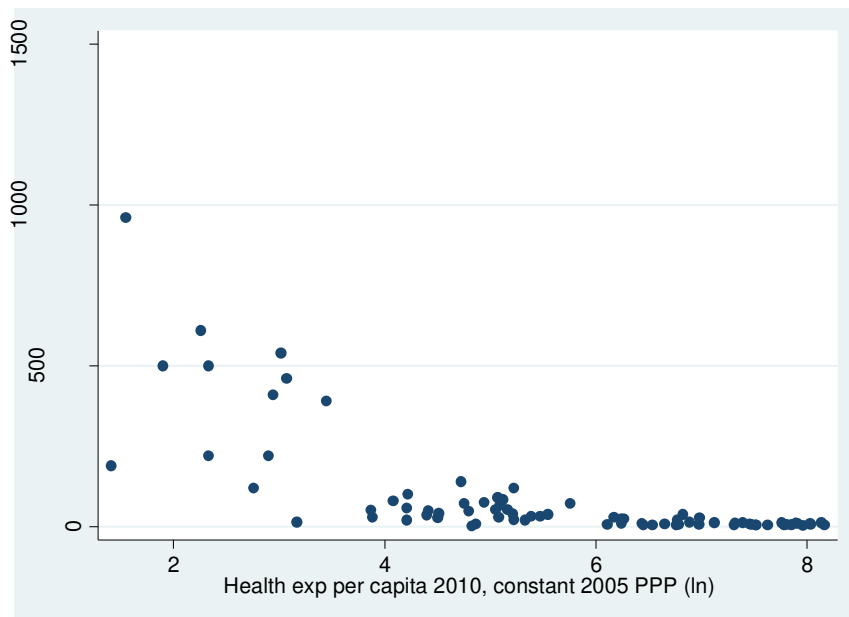


**Figure 4. Per Capita Public Expenditure on Health Against Child Mortality, 2010**



Notes: 82 observations

**Figure 5. Per Capita Public Expenditure on Health Against Maternal Mortality, 2010**



Notes: 81 observations

As shown Table 12 below, these associations are strong and significant, with coefficients of correlation between 0.5 and 0.8. The comparatively low coefficient for primary completion is

most likely explained by the fact that some lower income countries have completion rates well above 100 percent, as a result of over-aged children completing primary school. Thus, the relationship between completion and spending is not perfectly linear.

However, the matrix also contains a measure of total government spending per capita in addition to the individual sectoral spending levels. This variable is strongly correlated with MDG outcomes; in most cases it has a higher correlation coefficient than the respective sectoral spending level. This suggests that level of expenditure generally, rather than how governments choose to allocate funds, may be the main driver of MDG outcomes. A way to examine this is through multivariate regression analysis, using both expenditure per capita and respective sectoral expenditure shares as explanatory variables (see Table 13). Encouragingly, in the case of under-5 mortality, the coefficient for the health share of expenditure remains negative and significant when controlling for per capita spending. In the case of primary enrollment the coefficient for the education share remains positive and significant. This suggests that, all else being equal, countries that allocate a higher proportion of resources for MDG purposes do achieve better enrollment and child mortality outcomes. In the case of maternal mortality, however, the coefficient for health budget share is not significant.

Table 12 also indicates strong associations between GDP per capita and MDG outcomes. Including the GDP per capita as an explanatory variable in regression analyses weakens the coefficients on the spending variables, however, in most specifications the expenditure variables coefficients remain significant. In other words, if we took two countries with the same GDP per capita, it is highly probably that the country with the higher MDG spending would have better MDG outcomes.

**Table 12. Pairwise Correlations Between Sectoral Per Capita Expenditure (SPEED) and MDG Outcomes, 2010**

	Education expenditure per capita, 2005 PPP, log	Health expenditure per capita, 2005 PPP, log	Total government expenditure per capita, 2005 PPP, log	GDP per capita, ln, intl \$
<b>primary enrollment</b>	0.7272	0.6562	0.6538	0.5214
<i>P-value</i>	0	0	0	0
<i>Obs</i>	58	58	57	120
<b>primary completion</b>	0.5486	0.504	0.5787	0.6752
<i>P-value</i>	0	0.0001	0	0
<i>Obs</i>	54	54	53	124
<b>Mortality, children under-5</b>	-0.8241	-0.783	-0.8162	-0.7371
<i>P-value</i>	0	0	0	0
<i>Obs</i>	82	82	81	182
<b>Mortality, maternal</b>	-0.7213	-0.6896	-0.7531	-0.7361
<i>P-value</i>	0	0	0	0
<i>Obs</i>	81	81	80	176
<b>Access to safe water</b>	0.5397	0.5802	0.618	0.5356
<i>P-value</i>	0	0	0	0
<i>Obs</i>	75	75	74	169
<b>Access to improved sanitation</b>	0.6744	0.6875	0.7167	0.6857
<i>P-value</i>	0	0	0	0
<i>Obs</i>	73	73	72	165

**Table 13. Regression Coefficients of MDG Outcomes and Expenditure, 2010**

	Child mortality	Maternal mortality	Primary enrollment
Total government expenditure per capita	-0.0015	-0.0076	0.0005
Health expenditure as % of total expenditure	-1.69	-6.99	
Education expenditure as % of total expenditure			0.54
R2 (adjusted)	0.30	0.21	0.33
Obs	81	80	57

Notes: Highlighted grey cells indicate significant at 0.05 level

The GSW database allows us to consider these same correlations for a larger sample of LICs and LMICS (Table 14). The signs are similar to those for the global sample above, however the correlations are considerably weaker and in many cases not significant. Furthermore, when controlling for GDP per capita, the correlation with health and education outcomes lose their significance. In other words, LICs and LMICS that mobilize more resources for health and education in proportion to the size of their economy are not likely to have higher primary enrolment or lower maternal and child mortality than countries that mobilize less resources for these purposes.

These weaker results when using the GSW sample may indicate a problem with the data, as per capita spending measures are not adjusted for purchasing power parity. The results may also suggest that the positive effects of government spending on MDG outcomes are more pronounced among UMICs and HICS.

**Table 14. Pairwise Correlations for Government Spending Watch Sample (LICs & LMICs only), 2010**

	Education expenditure per capita	Health expenditure per capita	WASH expenditure per capita	Total government expenditure per capita	GDP per capita, ln, intl \$
primary enrollment	0.2177	0.2458	0.3512	0.2459	0.4482
<i>P-value</i>	0.2394	0.1987	0.263	0.2162	0.0016
<i>Obs</i>	31	29	12	27	47
primary completion	0.4869	0.5922	0.5156	0.5781	0.7152
<i>P-value</i>	0.0017	0.0002	0.0285	0.0003	0
<i>Obs</i>	39	35	18	34	56
Mortality, children under-5	-0.4079	-0.4567	-0.3071	-0.5294	-0.5719
<i>P-value</i>	0.0024	0.001	0.127	0.0001	0
<i>Obs</i>	53	49	26	47	77
Mortality, maternal	-0.4713	-0.5091	-0.3759	-0.5469	-0.6138
<i>P-value</i>	0.0004	0.0002	0.0584	0.0001	0
<i>Obs</i>	53	49	26	47	77
Access to safe water	0.1953	0.0591	-0.0204	0.1054	0.2923
<i>P-value</i>	0.1611	0.6866	0.9211	0.4806	0.0109
<i>Obs</i>	53	49	26	47	75
Access to improved sanitation	0.3905	0.2382	0.1296	0.2838	0.444
<i>P-value</i>	0.0042	0.1031	0.5281	0.0559	0.0001
<i>Obs</i>	52	48	26	46	74

Notes: Highlighted grey cells indicate significant at 0.05 level

#### 5.4 OBI ‘High Performers’ and MDG Expenditure

In light of the difficulty of controlling for the particular country contextual factors that may be conditioning the ways in which budget transparency, budget allocations, and development outcomes influence each other, an alternative way to test these relationships is to compare relative change over time. Unfortunately, the OBI only started in 2006, which limits our ability to study relative changes in budget transparency. Furthermore, the time series data for government expenditure and MDG outcomes suffer from significant weaknesses. However, for a small sample of countries, the data we have available nonetheless allows us to consider whether countries with recent strong improvements in budget transparency perform differently from countries that have not improved. We singled out all LICs and LMICs that have improved their OBI score by at least 15 points between two of the surveys.<sup>21</sup> Table 15 lists the 19 countries that have done so. Within this sample, four countries have had exceptionally high growth in the 2000s: Angola; India; Indonesia; and Vietnam. A large numbers are also traditional ‘donor darlings’, with strong relationships with the international community, including Afghanistan, Liberia, Malawi and Uganda. Many are also reflected in the case study literature as being countries which have had broad civil society space, strong participation in budget and planning processes, or government leadership and technical capacity to make budgets more transparent and MDG oriented. Even a cursory look at the sample suggests that budget transparency improvements may be associated with broader economic and social change.

**Table 15. OBI high performers: countries increasing their OBI score by at least 15 points**

Afghanistan	Dominican Republic	Indonesia	Pakistan
Angola	El Salvador	Liberia	São Tomé e Príncipe
Bangladesh	Georgia	Malawi	Uganda
Burkina Faso	Honduras	Mongolia	Vietnam
DRC	India	Morocco	

Comparing MDG sector expenditure growth and MDG progress in this sub-sample against other LICs and LMICs on the OBI index suggests that this group has performed better. On average,

<sup>21</sup> International Budget Partnership. (2012). Open Budget Survey 2012. IBP: Washington D.C. <http://internationalbudget.org/wp-content/uploads/OBI2012-Report-English.pdf>

this group saw education expenditure rise by 1.5 percent of total expenditure, compared to a slight fall in the budget share for education sectors in the control group. Similarly, health expenditure rose 1.4 percent compared to 0.6 percent in the control. This group also saw education enrolment rise more sharply and child mortality fall considerably more. Although the samples are small and we use no controls, they suggest an avenue for further research that uses better time series data.

**Table 16. OBI High Performers Versus Control Group**

	OBI high performers			Non-high performers		
	Obs	Mean	Std. Err.	Obs	Mean	Std. Err.
Growth in education exp as share of total exp (% of total exp)*	13	1.5	5.7	27	-0.5	1.3
Growth in health exp as share of total exp (% of total exp)*	13	1.4	3.6	27	0.6	0.9
Increase in primary enrolment**	7	15.3	14.5	12	14.3	1.9
Fall in child mortality (per 10,000 births)**	19	-66.9	41	53	-44.8	4.3

## 6 Conclusion

This paper has examined relationships between budget transparency, Millennium Development Goal (MDG) expenditure, and MDG outcomes. Several new datasets make it possible to compare these phenomena across countries for the first time, thereby opening the door for more a systematic analysis of how they interact. In particular, the Government Spending Watch database means we can now compare and track MDG-sector spending for a relatively large sample of low- and lower middle-income countries, which are the intended beneficiaries of the MDG agenda. Such countries are often excluded from global indices due to the difficulty of accessing their budget information.

We find that countries with more transparent budgets are also better producers of budget documentation for MDG tracking. Thus, increased budget transparency globally should be expected to improve our ability to track spending on development goals.

However, evidence of links between transparency, spending allocations, and outcomes is weaker. More transparent countries do not, on the whole, spend a higher share of their

budgets on education, health and water than less transparent ones. While at global level countries that spend more per person also have better MDG outcomes, this effect weakens significantly once we control for income group. These findings suggest that spending levels and spending effectiveness are predicated on many other conditions, as the wider literature has shown.

However, when we look more closely at “high performers” the relationships appear to be stronger, albeit with the caveat that the samples are too small to give statistically robust results. The countries that have seen the biggest improvements in transparency in the past decade have on average increased MDG spending more, and perform better against the goals, than those that have seen little improvement. Many of these countries are also those analyzed in case study literature as possessing the broader characteristics which improve transparency, spending allocations, and outcomes. This includes growing civil society space and engagement; as well as government leadership, will, and technical capacity to make budgets more transparent and MDG-oriented, and to track spending and ensure delivery.

Unfortunately the new data sets are not yet lengthy, comprehensive, or detailed enough to be able to reveal stronger relationships. This may be possible by testing change over a longer time period, across a broader range of countries, or for more detailed types of spending which can be more closely linked to the MDGs. These would be promising avenues for future research, but their feasibility will depend on continued tracking of budget transparency and public expenditure.

A major priority for the Sustainable Development Goals (SDG) framework, therefore, should be to improve the tracking of budget transparency and expenditure on the SDGs, and SDG outcomes, as part of its proposed data revolution. To the degree that greater transparency, higher spending, and stronger outcomes are all dependent on broader factors, it will also be vital to see increased investment in building capacity of parliamentarians, officials, and the public to monitor and analyze budgets. It will also be vital to increase support for budget accountability and effective spending campaigns across the world.

## Annex: Data Sources

IBP	Open Budget Index	OBI
DFI / Oxfam	Government Spending Watch	GSW
IFPRI	Spending of Public Expenditure for Economic Development	SPEED
World Bank	World Development Indicators	WDI
World Bank	Worldwide Governance Indicators	WGI
EIU	Democracy Index	DI
Civicus	Enabling Environment Index	EEI
ONE /CGD	MDG progress index	