

Thematic Paper

Financing the Sector

First Draft
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Introduction

It is impossible to escape the conclusion that the global water sector in its many forms is in disastrous condition. Camdessus 2003¹

RFQ1. Finance Reframing Question: *Many stakeholders agree that existing funds and investments can be used more efficiently and targeted more effectively to increase access to water services. Opinions differ on the means to increase funding to the sector, and the potential costs, risks, and benefits of increasing private sector investments. What are the mechanisms to ensure that sufficient finance is available to increase access of the poor and unserved, in both rural and urban areas?*

We hope to address these questions.

1. Financial resources available for water & sanitation:

Resources needed

The Camdessus report of 2003 estimated that meeting the MDG for 2015 at the most basic level required extra annual world wide investment of 10\$billion. Full water and sewerage connections and primary wastewater treatment for urban areas would require 17\$billion for water and 32\$billion for sanitation/sewerage². A more recent paper for the EU Water Initiative Finance Working Group estimates that an additional 9-30billion\$ per annum is needed on top of current commitments³. The benchmark figure most commonly used estimates roughly that what is needed is a doubling of the annual rate of investment⁴. To make matters more serious investment requirements do not reflect the persistent shortfalls in running costs which end up being reflected in investment requirements as infrastructure wears out quickly due to lack of maintenance. In other words, today's maintenance expenditure saves tomorrow's investment requirements.

Here are some headline figures provided for the Water Dialogues by Richard Franceys of the University of Cranfield (UK) a member of the WD academic panel, at the WD meeting in Bali, November 2007

Water Costs:

¹ *Financing water for all*. Report of the World Panel on Financing Water Infrastructure, chaired by Michel Camdessus, report written by J. Winpenny; World Water Council, *et al* World Water Forum 2003.p.8

² *op cit.* p. 3

³ R. Cardone, N. Shah, D. Waughray, *Final report EU Water Initiative Finance Working group* DFID 2005 p.2

⁴ Camdessus *op cit.* p. 13

- Global Water Utilities Revenues: \$325 billion annual (\$16.6bn in England & Wales alone)
- Global Water Capital expenditure: \$49.7 bn annual (\$8.7 bn in E&W alone - OFWAT 2007)
- Australia \$25.9bn for urban water ‘over next five to ten years’ (Water Utility management International, Sept. 2007)
- Brazil \$4.4 bn in 2007 (WUMI Sept 2007)
- Philippines \$3 bn for MDGs (2015) (WUMI June 2007)
- Saudi Arabia historically 17% GDP on infrastructure, now to be increased to 30-35% (Global Water Intelligence Oct 2007);
- Thames Water (UK) \$54 bn over next 25 years (GWI Oct 2007)
- USA \$1 trillion for rehabilitation and enhancement of waste water and treatment ‘in the coming years’ (Michael Eanes, Environmental Protection Agency OECD 2007)

The Water & Sanitation Project (WSP) reports⁵:

- Sub-Saharan Africa (SSA) MDG targets as requiring a further 6.7\$billion/year.
- Asian Development Bank (ADB) calculates Asia Pacific as needing 8.1\$billion/year, including operation and maintenance costs replacement and support.

Generally total financing requirements are 1.3% GDP for water and 1.4% for sanitation in order to reach the MDG targets, targets which fall far short of universal coverage by 2015.

- Low income states such as Ethiopia, Democratic Republic of Congo, require over 2.5%, (2.7% according to the UN Human Development Report (UNHDR) 2006⁶).
- Middle income countries such as South Africa require only 0.2-0.35.
- Even England & Wales still invests 0.3%, about the same level as is current in SSA.

An indication of the mountain there is still to climb in many countries comes from a paper for the UK Department for International Development (DFID) by Shah *et al* which suggests that there is a point at which a service will reach some kind of steady state of financial sustainability, usually related to income levels; in the case of the UK it was reached at about 15,000\$ per capita GDP. Even today, at 40,000\$, there is an implicit cross subsidy from urban to rural, the paper argues and rates of renewal may still be insufficient⁷.

What are the peculiarities of WSS? Why is it so difficult?

⁵ N.Shah et al: *Financing of Water Supply & Sanitation Finance Policy Background Paper DFID 2007*p.5

⁶ UNDP *Human Development Report 2006 Beyond scarcity: power poverty and the global water crisis.* P.67

⁷ Shah et al op cit.: p.4

The paper by Celine Kauffman of OECD delivered to an ADB seminar in Manila 2008 lists the reasons for the difficulties of the water sector in accommodating public and private participation⁸:

1. the sector combines high fixed costs, long term irreversible investment and inelastic demand;
2. it meets a basic need with high political salience;
3. it operates mainly within local administrations but its impact goes beyond the local eg river basins;
4. it is characterised by segmentation of responsibility;
5. it is characterised by accumulation of risks: contractual, foreign exchange, sub-sovereign, political,
6. it has complex pricing policies reflecting multiple objectives: cost recovery, environmental protection, equity, affordability, efficiency;

So even though WSS are simpler in technological terms than other utility sectors such as electricity or telecoms, they are particularly fraught in political terms.

2. How is the sector's money spent?

Elements of cost to be covered:

- capital expenditure,
- operations & maintenance,(O&M) including ongoing labour costs
- infrastructure renewal & rehabilitation (R&R)
- debt service
- environmental charges (eg abstraction)

One vital point is the high ratio of utility plant value to revenue: comparable global estimates are: electricity 1.5; natural gas 1.25; water 3.5⁹. In the UK the comparable ratios for fixed assets to annual revenue are 4.1, 2.1, and 12.2¹⁰, suggesting that the ratios become still higher as economies develop. The point is that this is a sector with very high fixed costs. Furthermore the two branches of the industry differ, the sanitation side when operated with sewerage systems has an even higher ratio of fixed costs to revenue. At the same time, financial rates of return are among the lowest of any sector due to delayed returns and resistance to tariff increases. Given the high fixed costs the management of debt and investment in infrastructure is absolutely vital to the future of the industry.

Concepts and practice of cost recovery

RFQ5. Cost Recovery Reframing Question: *Some stakeholders, including donors and private water companies, perceive that cost recovery and collection rates are higher under PSP. How can the discipline of cost recovery and high collection rates be mainstreamed for urban publicly managed water and sanitation services? Is this approach relevant to and effective in rural areas?*

⁸ C. Kauffmann *Private sector participation in water & sanitation infrastructure: the policy challenges of involving private investment in key primary sectors: the water & energy sectors in focus*. Global Forum on International Investment March 2008 Manila p.4.

⁹ Peter Gleick *Key trends in PPPs and drivers for change in the future*. OECD Global Forum for Sustainable Development, nov. 2006, Paris. power point

¹⁰ Richard Franceys, *Perspectives on urban watsan, PPPs and development*. DFID Water Forum, 2006

In theory cost recovery must include at a minimum, operations and minor maintenance with ideally a current contribution to future replacement costs. In practice, according to the paper by Shah for DFID¹¹: *The result is often an uneasy compromise where tariffs are set at a level that does not even cover the recurrent costs of operation and maintenance and the sector is chronically underfinanced.*

Many services do not cover any of the above elements in their totality, not even regular operations and maintenance. For example, in many developing countries and the Former Soviet Union (FSU) cost recovery levels as low as 20% of O&M may still be found. In Kyrgyzstan during instability on 2005 tariff rises were stopped by governors and mayors. Cost recovery fell from 80% of unit costs in 2000, to 63% in 2005¹².

Maintenance is often neglected which means that the need for R&R goes up and reverts to capital expenditure if systems have to be completely replaced. Depreciation funds may exist but they may be 'raided' by municipalities seeking revenue for other activities. The extent of debt service charges is variable depending on the extent to which debts have been incurred in the first place. This in turn may depend on credit-worthiness although some long term loans may have been made on the basis of low credit-worthiness and may have little prospect of repayment.

Finally, environmental charges, such as abstraction charges, are still at an early stage of development even in the rich countries, with much work being currently undertaken as the extent of water stress becomes ever more apparent¹³.

If even O&M budgets are not met then two things can happen:

- the municipality may make a subsidy which may not always be identified as such but may be hidden in general labour costs for example.
- workers might simply go without payment for long periods of time. This happened widely in the FSU during the '90s.

Failure to meet O&M costs, indeed to collect revenue, led to the virtual collapse of the Nairobi municipal water service for a while during the early 2000s. When this happens, municipal staff may become 'independent' vendors as a way of making a living as happened in that case, described by the local World Bank task manager Ato Brown as a 'cottage industry'¹⁴.

The UN Human Development Report makes the point that cost recovery (CR) in Africa would bring spending from levels up from 0.3% to 1%¹⁵. This would constitute a major influx of new and immediate revenue, but of course raises obvious problems of

¹¹ Shah et al op cit. p.9

¹² Shah et al op cit p.10

¹³ K. Bakker *From commodity to commons; re-regulating and mutualising private water supply in England & Wales* Economic geography working paper series, WPG 02-15 School of Geography & Environment University of Oxford, 2002.

¹⁴ Ato Brown, World Bank Civil Society dialogue London November 2004.

¹⁵ UNDP op cit p.67

affordability. However, before dismissing it out of hand it should be borne in mind that the poorest do not pay tariffs because they are not connected. Furthermore they are victims of the 'Poor pay more syndrome'. This is discussed below under revenue from consumers.

Improving cost recovery is likely to make it less difficult for a service to extend. For without full CR, every new customer is a loss maker, and the lower the CR level the greater the losses. But it is by no means automatic that networks will grow with full CR, even if the existing consumers are willing to pay. There is the danger that a system could find itself operating in a kind of 'steady state' in which there is a high level of cost recovery and relative efficiency but the service still does not supply everyone. This is a criticism sometimes levied at cooperatives. They may operate well within certain defined populations but have no incentive to move towards serving new groups such as peri-urban settlements, which will involve new and higher costs and lower per capita revenues.

A good example of 'steady state' at below full coverage is Cote d'Ivoire electricity a private company including French private and public interests (SAUR and EdF) it operates well in terms of price stability, continuity of supply, returns on capital and remarkably high bill collection rates, higher than in much of Europe. And yet coverage amounts to 50% not a bad rate by African levels but still not 'viable' in terms of the non-served. The point is that a 'steady state' of viability for a restricted population is not enough, if the objective is universal service¹⁶.

So if CR is not the magic bullet, what are other available sources of funding?

3. Sources of Finance:

In the mid-90s the global breakdown of financial sources for WSS was estimated to be: domestic public sector: 65-70%, domestic private sector: 5%; international donors 10-15% and international private companies 10-15%¹⁷. Since then international aid for WSS has fallen as have international private investments and commercial bank lending for the sector. The public sector remains by far the largest service provider accounting for 97% of service provision in developing countries¹⁸.

3.1 Finance from users

But these figures overlook the obvious source of revenue: the users themselves. Their contribution gets swallowed up in the ownership of the sector. The point has already been

¹⁶ Y Jammal & L Jones: *Cote d'Ivoire Electricity*, World Bank, 2005; S. Ochieng & R. Simpson: *Financial & Economic viability: what does PPI bring to the table?* Consumers International, WB/PPIAF Cape Town conference June 2005: *Private participation for infrastructure for growth & poverty reduction in Sub-Saharan Africa*.

¹⁷ Camdessus op cit. p. 6

¹⁸ Camdessus op cit p.7

made that cost recovery involving higher user charges could as much as triple revenue for the service in Africa. But would the users tolerate such increases?

The poor pay more

Interconnected, or 'reticulated' systems of pipes are only a part of the picture in countries where there are large numbers (sometimes majorities) who are not connected to those fixed networks. Consumer organisations in Kenya, Peru, Dominican Republic, for example have carried out street level surveys on vendor-distributed water. These surveys demonstrated the most extreme expression of the Poor Pay More syndrome (which is not restricted to water)¹⁹. Other members of the Water Dialogues have similar evidence as have many of the International Financial Institutions (IFIs), including the World Bank, the existence of the syndrome is not in serious dispute although there is some debate about its intensity.

In Kenya, Consumers Information Network, has calculated that in East Nairobi, the cost per litre of drinking water is 10 times more for customers of vendors than it is for those who are connected to a network. The ratios are similar in other countries, even higher, the differential reaching 100 in some extreme cases such as the Caribbean region²⁰. This pattern is intensified where network prices are below cost.

There is a triple disadvantage for the poor:

- the poor pay more per unit of consumption;
- the better off receive a subsidy (through below cost pricing) which is denied to the poor;

This leads to a further complication which is that:

- connection charges tend to go up to recoup revenue when running costs are below cost, and this means that only those who have the capital to pay the connection fee get access to the service;

The 'poor pay more' syndrome traps the poor informal settlements in a situation of low income/high expenditure, which makes viability under any ownership extremely difficult. Rapid urbanization makes it harder to break out of the syndrome. Where legal tenure to dwellings is unclear as in many shanty towns, there is little prospect of investment if there is no guarantee that work undertaken, such as self-build will be allowed to stand.

Can disadvantages become advantages?

Paradoxically, the Poor Pay More syndrome gives some grounds for future optimism. For the regrettable fact that the urban poor are used to paying very high unit prices suggests that there are 'reserves' of revenue among the poor that could be channelled more

¹⁹ R. Simpson *Universal access in the Water & Sanitation sector* in OECD 2005. p.97

²⁰ A de Moor *Perverse incentives* Earth Council 1999. Consumers Information Network: C.Odongo & W. Mungai: *Empowering Vulnerable Consumers in Africa to Access and Influence Water & Sanitation Services: case study of the Korogocho area*, Nairobi, 2002

efficiently than at present to raise standards and reduce unit prices. In contrast, the rural poor often pay through other ‘coinage’ such as their time, another factor in which there are huge potential gains to be made.

So there are resources available in the current expenditure of poor consumers. We are not starting from zero to find a new element of household expenditure. Furthermore, poorer consumers are used (perforce) to paying regularly for current consumption, usually in relatively small amounts. This makes them potentially good network customers from the financial point of view. If this pattern of ready payment were carried over to networks after connection, it would mean that arrears of payment would not build up. For this to work, easy methods of payment need to be devised and the prevailing evidence is that the poor prefer frequent small payments to staggered larger ones. Some new network developments have faced difficulties as a result of failing to recognise this basic preference and charging consumers on a monthly or even quarterly basis for example.

But the logic of unlocking existing expenditure can only go so far.

There are major problems in the sanitation sub-sector, for there is so little existing expenditure to channel. As Shah reported for DFID²¹: *It is difficult to recover the full costs of wastewater services in developing countries from household tariffs, as the investment costs are high and the number of users low. In addition some of the benefits are external to the household. Wastewater services are therefore normally reliant on subsidies.* There is a powerful argument then that any extra finance needs to be for sanitation rather than water.

Where there remains an unbridgeable gap between costs/prices and income levels, then there may be an argument for ‘delinking’ the operator tariff from the consumer tariff. It could be said that such a policy is implicit in much of the deficit finance that has taken place on a more or less improvised basis in many countries. But with more explicit delinking, the public subsidy would not simply consist of picking up the deficit, it would be laid down in agreed form between the operator and the public body.

This has happened in Senegal. The central feature of the tariff formula which is bound up in the *affermage* contract is the separation of the ‘operator tariff’ from the lower ‘consumer tariff’. The operator does not set the tariff and the income of the private company *Senegalaise des Eaux* is not dependant entirely on the tariff collected but on the volume of water delivered. This means that there is no motive to discriminate against poor consumers on the basis of their inability to pay and their payment of the lower tariff²².

²¹ Shah et al op cit. p.24

²² C. Brocklehurst and J.Janssens: Innovative Contracts, Sound relationships: Urban water sector reform in Senegal. WB Washington 2004

But it is utopian to presume that the move to cost recovery is a simple one. Otherwise it would have happened more widely by now. Subsidies are inevitable to ease the transition.

Tariff and subsidy design e.g. connection subsidy and consumption subsidy

The distinction between tariffs and subsidies can become very blurred. A reduction in tariff below cost for a given group is a form of subsidy in kind. The same effect can be achieved in theory by granting a cash sum to a household calculated as a function of their need for water and their income level. (In Chile, for example, these two methods co-exist, the objective being to separate the cost of water from the affordability to the consumer)²³.

As utilities move towards full cost recovery, the issue of tariff design becomes more salient. The higher the charge, the more there is at stake for consumers in its design. There are two broad categories of explicit utility subsidies—consumption subsidies and connection subsidies. Consumption subsidies reduce the charge for consuming water services, while connection subsidies are a one-time reduction in charge at the moment of connection. A survey of tariff structures in Latin America, Africa, and Asia found that roughly three-quarters of utilities include some form of quantity-based consumption subsidy. Consumption subsidies are available only to those households connected to the network. This means that many poor households are often excluded from subsidy programs.²⁴

Every subsidy scheme should have a clearly defined ‘target population’; targeting is the extent to which the subsidy reaches that population. Two types of errors can arise in targeting:

- *Errors of exclusion*—when people who need and are eligible for the subsidy fail to receive it resulting in unmet need;
- *Errors of inclusion*—when people who do not need and are not eligible for the subsidy obtain it anyway; this inflates expenditure at the expense of other potential uses of that money (for example extending the network to the unserved);

Worse still, is the possibility that both sets of errors can be present simultaneously. This is the case when wealthier connected consumers in incomplete networks benefit from below cost tariffs while poor people in the unconnected zones receive no subsidy at all.

Most countries attempt to target subsidies based on the volume of water consumed. The most common form is an increased block tariff (IBT) in which the price charged per unit increases at higher volumes of consumption. Some utilities apply another form of quantity-based subsidy, which is sometimes called volume-differentiated tariff (VDT). VDTs are composed of two or more different tariffs, the first highly subsidized and the

²³C. Chavez & M. Quiroga. *Water metering successful story: Chile*. University of Concepcion.2002

²⁴ *Who benefits from utility subsidies?* World Bank press release World Water Forum Mexico City March 18 2006 p.2

second less so or not at all. Unlike IBTs, VDTs apply the higher tariff to **all** consumption once a threshold has been passed. In effect the tariff reduction for the first block disappears once a certain overall volume of consumption has been reached²⁵.

Another form of targeting involves the use of administrative decisions to determine subsidy eligibility. The decision could be to subsidize all customers in a particular demographic or employment category (for example, pensioners or war veterans), those living in a particular neighbourhood or region (geographical targeting), or those whose means are calculated as falling below a certain level. While this last approach tends to be advocated by classical economists on the grounds that it separates industry costs and prices from social considerations, it can suffer from practical problems of identifying who are the poorer households, as many households are reluctant to enter into what may be quite a humiliating process.

The quantity-based subsidies practiced by about 80 percent of water and electricity utilities surveyed by Komives et al are starkly regressive. In fact, poor households captured only half as much of the value of the subsidy as they would have done if the subsidies had been distributed randomly across the entire population.²⁶

Why do quantity-targeted utility subsidies perform so poorly?

- The most fundamental reason is that poor households are much less likely than nonpoor households to be connected to the network. Moreover, the effective application of IBTs and VDTs requires households to have functioning meters to measure water use. Poor households are often less likely than non-poor households to have meters.
- The second reason is that the differences in consumption between the poor and the nonpoor are less than they are often assumed to be.
- The third reason is that some common features of tariff structures fall most heavily on those who consume the least. For example, fixed charges mean that households that consume very small quantities may face a much higher unit price than larger consumers and, failure to apply full cost recovery tariffs to households consuming at higher levels means that even large consumers benefit from subsidization to a substantial degree.

Changes in design to improve the performance and accuracy of consumption subsidies have proved to be very difficult. More fundamental changes—such as the elimination of general (implicit) subsidies for all residential customers and the expansion of coverage and metering—would be needed in most cases for quantity-based subsidies to begin to achieve a neutral or slightly progressive distribution of subsidy benefits. Yet that would provoke fierce resistance from existing consumers.

²⁵ K.Komives, V. Foster, J. Halpern & Q. Woden: *Water, electricity & the poor, who benefits from utility subsidies?* World Bank 2005 p.13

²⁶ World Bank 2006 op cit p.3

Connection subsidies

The above relates to consumption subsidies. There is another kind of subsidy which may prove to be more ‘pro-poor’ and that is the access (or connection) subsidy, which often provides the best targeting of the money available towards the non-served (who are usually the poorest). This is especially helpful as it is a relatively simple matter to identify the presence of the non-connected. Komives et al analysed the features of connection subsidies.²⁷

- If one assumes that all unconnected households were both offered and accepted subsidized connections, the distribution of benefits from connection subsidies is nearly always progressive.
- If connection subsidies are combined with geographic targeting or means testing, they are even more progressive. (This assumes that means tests succeed in identifying eligible consumers).
- However, in practice utilities often face constraints in expanding their networks into all geographic areas and, even where networks are already present, many poor households face non-financial obstacles to connecting (such as not having legal title to the property they occupy).
- When only 50 percent of the unconnected poor households are able or choose to connect, the benefit targeting performance becomes regressive in many cases.
- Even so, the targeting performance of the simulated connection subsidies is better than that of many of the consumption subsidies described above.

The case for connection subsidies is based on the frequent observation that connection charges are often the biggest single barrier for new consumers²⁸:

- The Buenos Aires concession hit problems because of the connection charge policy especially because it was allied to an initial cut in tariffs. The tariffs were cut for the existing consumers who were not the poorest, while the initial connection charges for the new zones of service were far too high for the poor.
- In La Paz, significant progress was made in connections in the poor districts of El Alto but protests came from those outside the area in which connections were mandated by the contract with the private provider. Suez therefore complain that they became victims of their own success within the mandated sector as those left out protested at their exclusion.
- Similar problems have been encountered in Morocco where many districts of Casablanca saw improvements again restricted to a clearly defined territorial mandate.

So gradually a consensus is emerging that connection charges reduce errors of inclusion and errors of exclusion²⁹. But no system is perfect. Connection subsidies may be taken up

²⁷ World Bank 2006 op cit p. 6

²⁸ B. Dardenne *The role of the private sector in peri-urban or rural water services in emerging countries*. Global Forum for Sustainable Development OECD Paris Nov 2006. section 2.2 & para 116

first by the better off among the non-connected, leaving the very poor even further behind.

Ways of overcoming the limitations of subsidies

It is evident from the above that there are limits to what tariff and subsidy design can achieve. There are other suggested ways in which the impact of charges on the poor can be mitigated.

- Reducing (or at least holding back) the costs of service, through efficiencies in operating and capital expenditures or by improving revenue collection will reduce the dilemmas posed by tariff design.
- More frequent billing and elimination of minimum and fixed charges. Prepayment (though controversial in particular places like South Africa, can be a form of prompt billing. One of our Ugandan reports indicates that it has made some water points viable and helped maintain service.
- Providing devices that help households control their consumption.
- Relieving legal restrictions that often work against the expansion of services to the poor.
- Finally, other measures of social protection (eg social security) may achieve redistributive goals better than utility subsidies.

Self-provision and micro-credit

Another form of finance from users is self-provision. There is a long tradition of self provision in the sector sometimes as formal cooperatives (of which there are some 1,000 in Argentina for example), but also at village and neighbourhood level in some of the poorest countries. Frequently the major obstacle is in the provision of the small-scale capital required to set up even simple systems³⁰.

Shah *et al* report³¹ that micro-finance agencies are increasingly involved in providing credit to small scale water operators, eg in Burkina Faso and Kenya, to:

- households for WSS improvements;
- direct to communities.

However its use is still limited and constrained by high costs of loans.

In Kenya some communities have independently registered as service providers, raised funds and begun implementation. WSP research found that communities often raised about 20% of project costs, with an additional 15% available in the bank. However, it is reported: *a pattern seems to emerge whereby communities mobilise enough funds to initiate a project, but after three or four years, no further progress is made*³². To foster such schemes, output-based subsidies were provided by donors to 21 community-

²⁹ For detailed analysis see: K.Komives, V. Foster, J. Halpern & Q. Woden: *Water, electricity & the poor, who benefits from utility subsidies?* World Bank 2005

³⁰ M. van Ginneken & F. Ruiz-Meir *Consumer cooperatives: an alternative institutional model for delivery of urban water supply & sanitation services?* Water & Sanitation service Working Note 5 World Bank Jan 2006.

³¹ Shah et al, op cit: p. 14

³² ERM (R. Cardone, N. Shah, D. Waughray), *Final report EU Water Initiative Finance Working group* DFID 2005 p.15

managed water projects in Kenya. The eventual breakdown of costs was community resources 20% and 80% through loans from local micro-lender operating through K-Rep Bank. The eventual subsidy will amount to 40%, with community responsible for 60%.

Such micro-credit based schemes are certainly increasing and there is a convergence with the development of small scale independent providers (see below). But local government is itself in need of funding for its own operations.

3.2 Local & national government spending of funds drawn from

- ***Local taxation***
- ***Grants from national government;***

*Camdessus: It is wrong to think that tax revenues are a more obvious source than tariffs in poor countries with weak fiscal systems and many other urgent claims on the public purse.*³³

From 1960 to 1990, the administration of formal networks in developing countries saw increasing centralisation. From 1990 onwards this trend reversed with moves towards decentralisation³⁴. So Jamal Saghir, head of water and power at the World Bank said at an OECD conference in 2006³⁵: *Today 60-70% of the investment decisions in the provision of infrastructure services in developing countries are taken at the sub-national level (by local governments or utilities).*

The problem is that the rhetoric has not been met by the necessary finances. For the process needs:

- reform of national and regional utilities;
- local authority capacity and finance;

Central governments throughout the world are traditionally wary of allowing freedom to local governments to borrow and invest. This may be seen as contrary to central monetary policy and may simply provoke feelings that local government is overextending itself and becoming a political rival to central government. Or there may simply not be the local tax base for service subsidies to be made. This may have two effects:

- Increasing pressure from local government to central government for subsidy;

Or alternatively, in the absence of such subsidy:

- Making decentralisation tantamount to raising cost recovery levels by obliging local government to make up for funding shortfalls by raising tariffs.

³³ Camdessus op cit. p.18

³⁴ M.Mehta *Meeting the financing challenge for water supply & sanitation* WSP 2003

³⁵ J. Saghir OECD 2006 *Public-Private partnerships in water supply & sanitation; recent trends and new opportunities*; OECD global forum on sustainable development, Paris nov 2006. power point

Whatever the reasons there is usually an element of tutelage exercised by central government. This can be constructive and may take the form of intergovernmental transfers, either general or conditional. For example, the government of India makes 30-90% capital grants to local government to promote infrastructure development.

Frequently such funding has a policy goal. For example³⁶:

- Uganda makes conditional grants to promote sanitation over water, O&M and rehabilitation over new build.
- Kenya has the Local Authority Transfer Fund that transfers five per cent of annual income tax revenues of the central government. In theory, this allows discretionary spending but there is a general steer, for example towards capital projects. It is conditional also on local governments paying statutory charges (eg their water bill) and debt payments due, and revenue plans and service delivery plans are expected to include public participation.
- The Andhra Pradesh Urban services for the Poor project in India similarly requires some reforms as precondition, including CSO participation.

One of the problems faced by local government is its own inability to collect local taxes and this is one of the reasons for grant distribution by central government. And once collected there is the further problem of the difficulty of spending resources allocated due to the inevitable (and world wide) problems of rigid financial years, procurement procedures, etc.³⁷ There is also a risk of ‘revenue substitution’, ie if money comes from central government then there may be reduced incentive to collect charges from users for example. Care needs to be taken in order to maintain incentives to gather revenue or much of the point of the transfers may be lost and the system may become re-centralised.

National government has a continuing role under the more decentralised arrangements increasingly governing the sector. Firstly it may distribute spending as we have seen drawing funds from:

- Taxation
- Loans and grants from donors (bilateral, regional, multilateral)
- National bond schemes
- Share schemes
- Franchising or ‘cannon fees’

We have seen above how it may distribute funds in ‘project specific’ ways, often aided by donors. Sometimes there is a tripartite partnership between central and local government and donors. For example, in Ethiopia, half a million people have benefited from a programme in which local government have maintained oversight, but local communities have managed funds for constructing local water schemes with aid from central government and Finnish donors³⁸.

National government may also become a distributor of funds intended to reach consumers such as the Chilean scheme of payments to water services. These are intended for them to

³⁶ Mehta op cit. pp 27-31

³⁷ Shah et al op cit p. 16

³⁸ Cardone et al op cit .p.16

pass on to consumers in the form of stamps for bill payment or rebates deducted from the bill so that consumers can meet the cost recovery prices currently operating in Chile. Thus local government is in effect rewarded for applying national policy.

The Camdessus report identified a need for *reverse financial architecture*, using local institutions as much as possible³⁹. And there is indeed a shift to local sources of finance, following the collapse of various PSP projects. Public sector finance is being raised via financing of public/private bonds and loans. But private concessions have also been restructured, using local finances, for example when Suez refinanced Jakarta water via a local bond (in rupiahs). USAID in Indonesia is underwriting bond or loan financing options for municipal water providers.

This is a case of history coming full circle. For local public finance is the historical method of developing WSS. Public finance was used in the form of taxes, charges, municipal or government bonds drawing upon local capital as the financial base to build up services in Europe/USA, even in France (90% via public finance), and UK (100% coverage before privatisation)

Local capital schemes

Local bonds

One route to greater local autonomy is freedom to raise cash in the market. The sector has a long tradition of issuing bonds stretching back to the nineteenth century in Europe and North America. In recent years, India seemed to be leading the way, following the issue by the city of Ahmedabad, of bonds without state guarantees, but the momentum towards local bonds seems to have stalled⁴⁰:

- 35 urban bodies have local currency credit ratings and ten have accessed credit markets to expand infrastructure services. Ahmedabad Municipal Corporation was first through 25\$million municipal bond without sovereign guarantee in 1998. 100 parastatals in road and electricity sectors have credit ratings⁴¹.
- The Municipal Urban Development Fund set up in 1988 in Tamil Nadu as a revolving fund to finance municipal infrastructure programmes is entirely publicly funded. In 1988-96 it funded 63\$million for 500 infrastructure projects in 90 out of 110 municipalities with repayment rates of 80%. It was made more autonomous in 1996 with the government of TN owning 72% capital and 28% owned by financial institutions which have majority stake in asset management company. By 2000/2001 loan recovery reached 99%⁴².
- In Tamil Nadu, following the creation of the Water & Sanitation Pooled Fund (WSPF) local entities including the private sector are able to participate in the

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⁴⁰ DFID/WSP conference: *Unlocking the potential of the domestic private sector in the water and sanitation services* London June 10th 2008 session: *Market finance for larger service providers*

⁴¹ PPIAF: *Sub-national technical assistance program* briefing note: 2008

⁴² Mehta op cit. p.69

capital market to fund local projects in small and medium settlements. WSPF bonds are unsecured by sovereign guarantees, but are enhanced by a reserve fund to which participating municipalities contribute. In case of default, the WSPF can draw direct from municipality account. In the last analysis the USAID has provided a last resort guarantee⁴³.

As noted above one method of raising capital is to pool funds and issue loans from ‘own resources’ or from funds which the pool borrows. In Ghana in 1995, 14 communities created a private association the Association of Water Boards to house a group-managed fund to pay service providers for Operations & Maintenance. This was later developed into a reserve fund to house surplus funds. Other Water Boards could then borrow from the funds guaranteed by the District Authorities for capital expenditure. Between 2001-2004 funds were disbursed to over 20 additional water boards for replacement costs as well as for community contributions to get extra overseas aid⁴⁴.

Sub-sovereign lending initiatives

Lending by IFIs to local government or to public utilities at local level is still quite rare. Here are some emerging initiatives:

The European bank for Reconstruction & Development (EBRD) (on which Eastern Europe and Central Asia are heavily dependent for new investment) is the only IFI that has a direct sub-sovereign lending programme, its funds being largely blended with large grants for technical assistance. It has a team of municipal finance experts, including credit analysts in headquarters and at country level. None of its municipal lending programmes have defaulted and a number of the borrowers have developed the capacity to raise finance directly. EBRD also provides grants and technical assistance. Grant amounts can be as high as 60% of the total loan and are used to improve the sub-sovereign entity to repay debt and raise capital⁴⁵.

The Public Private Infrastructure Advisory Facility (PPIAF) sub-national technical assistance programme started in 2007. It is responding to the trend for responsibility to shift down to decentralised level, but recognises that many local entities do not have the financial resources, and many lack credit-worthiness. PPIAF has mounted a three year programme to help sub-national entities (local government and other entities such as utilities) improve credit-worthiness without sovereign guarantees. It has three elements:

- Access to finance for banks or bond markets without sovereign guarantees;
- Obtaining credit rating from Credit Reference Agencies (CRA)
- Take measures to improve credit worthiness

The activities are not tied to specific financiers. PPIAF has already developed shadow credit ratings (unpublished private entity ratings) for six water utilities in Africa and will set out improvements needed to become formal published ratings⁴⁶.

⁴³ Cardone et al op cit p.20

⁴⁴ Shah et al op cit. p.8

⁴⁵ Cardone et al op cit. P.20

⁴⁶ PPIAF 2008 op cit and Technical Advisory Panel briefing January 2008

Some of the larger developing countries have set up their own programmes autonomously. India and South Africa have set up local government restructuring facilities, such as the Indian City Challenge fund which aims to make its urban corporations credit worthy, and the Urban Reform Incentive Fund which develops market based improvements such as frameworks for user charges⁴⁷.

As is clear from the above, an integral part of the development of local funding options is the development of credit ratings. A more detailed description is provided in an Annex.

Credit ratings: A rating is used to assess the likelihood that an issuer of a bond will be able and willing to pay back their debt in future. The rating provides an indication of the agency's judgement on the potential that the issuer will "default" on payment – as stated in RatingsDirect (Standard & Poor's monthly newsletter) *'default studies have found a clear correlation between credit quality and default remoteness: the higher the rating, the lower the probability of default, and vice versa.'*⁴⁸ Ratings are not recommendations to buy or sell, and nor are they 'opinions' on policy.

The four best-known credit rating agencies are Moody's Investors Service, Standard & Poor's, Duff & Phelps Credit Rating Co., and Fitch IBCA, Inc. These agencies all use similar rating symbols that range from top-scale A's to bottom scale D grading (with variations on numbers/combinations of letters). Some of the broad criteria by which agencies assess sovereign and sub-sovereign entities include economic factors, debt, government infrastructure, and policy and legal frameworks. It is worth noting that one of the main 'criteria' for good credit ratings is GDP (the higher it is the higher the rating) – according to UNCTAD in their Conference report of January 2008.⁴⁹

Once a rating has been assigned by an agency and the issuer has agreed to have it published the rating is made public to capital markets. Ratings 'provide information to the investment community and facilitate access by investors to debt offerings. They also affect the costs to both sides of buying and selling debt.'⁵⁰ Furthermore, ratings differ between corporations and governments – whilst agencies are relatively experienced at rating the former, Cantor and Packer report that agencies frequently diverge on their ratings of sovereign risk. Nonetheless, and despite the skepticism attached to them, sovereign ratings have become a prerequisite for broad international bond market acceptance⁵¹ and also tend to be the determinant of other borrowers' ratings should they happen to be headquartered in the same country.

⁴⁷ Mehta op cit. p 41

⁴⁸ RatingsDirect, February 2008, Standard & Poors: 10

⁴⁹ Section III – Credit Rating Agencies' Procedures and Methods, 4-8: United Nations Conference on Trade and Development, January 2008 - *Credit Ratings Agencies and their Potential Impact on Developing Countries*

⁵⁰ Chapter 6, 161 - 195: Credit Ratings and Bond Issuing at the Subnational Level: Training Manual, A Report commissioned by The Global Program on Capital Markets Development at the Subnational Level

⁵¹ Cantor, R. & Packer, F. (1995): Current Issues in Economics and Finance, Vol. 1, 3, pp 1-6

One should not assume that all local funding arrangements have been in the interests of consumers. Some localised funding has produced some strange results. For example, Berlin's current PPP was not driven by most effective delivery of water services, but by the debt of the City Council. The process has been contested over its impact on consumers. What policy conclusions can be drawn? – Strong contracts with guaranteed rates of return and employment levels are good for both the private company and labour unions, and in this case, the municipality reduced its debt burden. But did consumers receive better services? Again as with all the policy options discussed, local borrowing should not be seen as a magic bullet.

Risk mitigation mechanisms

The corollary and precondition of improving access to autonomous finance for sub-sovereign entities such as local government is the handling of risk. Some of the relevant risks can be defined as follows⁵². (These categories may apply equally to sovereign (ie national level) lending).

Foreign exchange risk: investment in foreign currency and revenues in local currency

Contractual: long term contracts versus short term desire for payback

Operational: lack of information, difficulty of improvement

Counterparty: lack of credit rating of local borrowers

Political regulatory risk: arbitrary changes in rules after the onset of a contract

New mitigation mechanisms have been developed to deal with the different types of risk. The following examples are listed by Kauffman⁵³:

- Commercial risk: Partial Credit guarantee covering events such as non-payment. It is offered by the IFC (World Bank) among others and has been used in East Africa.
- Political risk tends to be written into Bilateral Investment Treaties which will usually contain dispute resolution mechanisms. 156 states have signed the International Convention on the Settlement of Investment Disputes between states and nationals of other states ICSID. Following its dispute with Suez, Bolivia became the first country to denounce the convention in May 2007.
- Political risk insurance covers war and civil disturbance expropriation and confiscation, and risks associated with currency convertibility. The World Bank institutions provide such risk insurance notably MIGA, also the EBRD and the Asian Bond market.
- Other risks such as regulatory and contractual risks are covered by instruments such as the partial risk guarantee which covers breach of contract and changes in the law or obstruction such as non-payment of termination accounts.
- Risk instruments are being developed for environmental events even climate change.

⁵² Cardone et al op cit p. 19

⁵³ C. Kauffmann. *Private sector participation in water & sanitation and infrastructure*. OECD Manila 2008 p.13

Perhaps the most well known risk is that associated with currency devaluations which played a big part in the destabilising of the Buenos Aires and Manila concessions. Risk is certainly increased when borrowings are based on foreign currencies. Camdessus stated that exchange risk is *virtually impossible to insure against commercially*⁵⁴. And sub-sovereign risk makes currency risk even greater because of the extra link in the chain. In these circumstances local government or public utilities have to make adjustments to their operations to reduce risk to a minimum if capital is to be attracted. Camdessus again: *A vicious circle exists in which sub-sovereigns are unwilling to prepare or to open their books without seeing money on the table, and lenders are unwilling to make any move before the information is provided*⁵⁵.

To deal with currency risk Camdessus recommended the development of a Devaluation Liquidity Backstopping Facility for sub-sovereign lending. In the event of a devaluation, this mechanism could take the form of a loan from the international agency to the national government of the sub-sovereign borrower⁵⁶. Effectively the loan would be rescheduled.

The first MIGA guarantee for water was signed in Guayaquil, Ecuador in 2001 to guarantee 18\$million investment for International Water Services of the Netherlands. This was a 30-year concession with a performance bond for non-compliance by the company. The guarantee provides protection against expropriation and civil disturbance and wrongful triggering of the performance bond. The guarantee provides that the amount of compensation does not exceed the performance bond. World Bank guarantees only cover debt not equity and they require counter signature by the host government⁵⁷.

The *Agence Francaise du Developpement* created a guarantee fund for Madagascar with private and public support, (51% private 49% government) and not reserved just for governmental bodies. AFD provided 3.5million euro and pledged a further 0.3m. It facilitated guarantees to 100 companies during the political crisis of 2002 and leveraged extra 20million euro by guaranteeing up to 70% of investments made⁵⁸.

Many of the above mechanisms consist of guarantees that may never have to be called on. To the extent that they provide security they can allow poor institutions and even poor families to make investments and thus attract matching investments to fill the remaining gaps. In this sense such financing instruments ‘lever’ external investment. Here is a summary of some of the ‘leverage’ measures discussed⁵⁹:

- Support for local funding through municipal bonds
- Support for locally sourced finance through CBOs; enhancing community contributions: locally based credit, local institutional arrangements; scaling up facilities;

⁵⁴ Camdessus op cit p.33

⁵⁵ Camdessus op cit. p. 15

⁵⁶ Camdessus op cit. Annex 1

⁵⁷ Mehta op cit.p.60

⁵⁸ Cardone et al op cit. p21

⁵⁹ Cardone et al op cit. P. 21

- Aggregation or pooling of funds for small and medium towns for replacement costs and attract money from donors who require minimum project size
- Public-private partnerships to gain international expertise without investment requirement, may include contractual arrangements or twinning
- Capacity building for sub-sovereign participation in financial markets
- Risk management mechanisms
- Reform of conditionalities and requirements of funding mechanisms to address the needs of local borrowers
- Leverage of finance from international private market eg by export credit agencies.

Other recent innovations in providing guarantees to help obtain access to capital funding, helped by donors, include Guaranteed municipal bonds, (Mexico, Jo'burg, India) credit rating (Mexico) pooled finance (Bangalore, Tamil Nadu) community participation (India)⁶⁰.

The Private Infrastructure Development Group (including development aid donors from Netherlands, Sweden, Switzerland, UK) is supporting the development of Guarantco, a local currency credit guarantee company. It aims to facilitate access to local financial markets for infrastructure companies that need to borrow local currency funds for their investments. It will provide partial credit guarantees for borrowers without requiring a sovereign government guarantee. Borrowers may be private firms, municipal utilities or municipalities engaged in infrastructure projects in low income countries; lenders may be investors in bond issues or local banks⁶¹.

Gradually the aim is for utilities becoming credit worthy and obtain credit at their own initiative. But this goes beyond the question of external guarantees; it is also a matter of internal reform. For example, NWSC Uganda has had an operating surplus for nine years; it is now to borrow on its own account for new infrastructure improvements⁶².

3.3 Official development Aid

There are different types of aid. Official development assistance (ODA) mainly consists of aid from OECD countries usually with a minimum 25% grant element as stipulated by OECD's Development Assistance committee⁶³. The largest single donor of ODA is Japan, followed by the International Development Association (of the WB), Germany, US, France, UK and EC⁶⁴. Bilateral aid exceeds the multilateral aid coming from the World Bank and the regional development banks, UN programmes and aid funds from the EU. But it does not include non-concessional loans which are granted at or near commercial rates by the IFIs such as the WB.

⁶⁰ Kauffmann op cit. P.13

⁶¹ Cardone et al op cit. P. 20

⁶² PPIAF TAP briefing op cit.

⁶³ Camdessus op cit p 22/23

⁶⁴ Camdessus op cit. p.22/23

OECD estimate that ODA to the water sector has been declining since the late '90s, along with other investment. 1999/2000-2000/2001 commitments decreased to a level which in real terms was the lowest since 1985 while education and health have seen increases.⁶⁵ Within that total, while grant funding has been stagnant, loan finding has increased. (Loans have an average grant element of 70%)⁶⁶. Here are some other salient facts from OECD and UNHDR:

- Between 2000 and 2004, 50% of bilateral and multilateral ODA has been concentrated in 10 countries⁶⁷; the 2006 UN Human Development Report reported that the 10 largest recipients received two thirds of the total⁶⁸;
- There is a severe time lag which masks the figures, so trends may be still worse; half of the disbursements made in 2002 related to commitments made before 1998⁶⁹.
- The share of ODA to least developed countries has increased, but between 1997-8 and 2000-2 Africa's share of ODA decreased to 27%⁷⁰; (the 2006 UNHDR reported one fifth⁷¹).
- in SSA, 45% of aid went to support large scale water projects and 27% to small scale systems⁷².
- Just 16% of total water ODA went to countries with less than 60% access to improved water sources⁷³.
- The share of WSS in bilateral ODA declined from 5.4% in 2000 to 4.2% in 2004⁷⁴.

For all these trends, aid remains hugely important for some countries. Some African countries rely on ODA for over 75% of capital budgets⁷⁵. There is even a risk of local over-provision due to the proliferation of international financial institutions

For example:

- WSP found that donors in Zambia finance about a third of capital expenditure in rural areas and close to 100% of capital expenditure in urban areas. Total capital came to 16\$million, which should have been enough to raise coverage from 37% to 47% or a million people. This did not happen⁷⁶.

ODA can have perverse effects, crowding out development of local capital markets, overwhelming budgets, and appreciating exchange rates. Shah *et al.* conclude that: *In the past too much money in the form of subsidies has gone from donor agencies to micro-*

⁶⁵ Cardone et al op cit. p. 3

⁶⁶ Cardone et al op cit p.3

⁶⁷ Cardone et al op cit p. 3

⁶⁸ UNDP op cit. p. 68

⁶⁹ Cardone et al op cit. p.3

⁷⁰ Cardone et al op cit.p.3

⁷¹ UNDP op cit. P. 68

⁷² Cardone et al op cit. P. 3

⁷³ Cardone et al op cit. P.3

⁷⁴ Shah et al op cit. p. 11/12

⁷⁵ Shah et al op cit. p.7

⁷⁶ Cardone et al op cit. p. 18

*credit schemes, many of them operated by NGOs. These interventions, while well-meaning, have crowded out commercial finance, thereby suppressing the growth of local capital markets, and prevented micro-credit schemes from becoming self-financing*⁷⁷.

Is aid tied to PSP?

The practice of conditionality is shifting. As countries pay off their IMF loans so the influence of the IMF is reduced and with it the conditionalities which marked its transactions. At the same time, the World Bank/donors are losing confidence in private sector solutions faced with the perceived failure of those policies to deliver. A new set of preferences are emerging associated with the promotion of international finance funds, and sub-sovereign bonds. Again, there is less driving through of conditionalities in terms of PSP, providing the funds are disbursed and repaid. According to Jamal Saghir speaking at the WB/CSO dialogue in 2004, most WB funding (around 70%) goes direct to the public sector with no private sector involvement. This stance repeated earlier statements at World water week 2004 and the 2006 World Water Forum.⁷⁸

But there are newer forms of conditionality. For example, Output Based Aid (OBA) is tied to specific outputs and often tied up with commercial funding. According to Camdessus, *In essence, it ties the disbursement of public funding (whether sourced from government resources, bilateral donors or multilateral agencies) to specific services or other outputs delivered by private firms or NGOs*⁷⁹. So OBA funded service delivery usually delegated to a third party, and subsidies are linked to actual outputs.

Special funds, much liked by bilateral funders are also a kind of conditionality in that they are reserved for particular activities, but are less and less associated with PSP per se, and more with encouraging new entrants regardless of precise ownership. The World Bank Social Investment Funds focus on financing investments. DFID have funded the Civil Society Challenge Fund, SIDA have supported local community development funds in South America and South Africa⁸⁰.

The WB SIFs fund community level initiatives implemented by public and private agencies including local government. By 2003 98 projects were funded in over 58 countries. Community Development Funds are still more localised, emphasising control by the poor. The same kind of projects with the same conditionalities exist at national level such as the Community Organisation Development Institute in Thailand which uses micro-credit for local network development⁸¹.

To the extent that conditionality is related to specific activities, it will never disappear. Indeed, during the '80s many of the development NGOs were highly critical of the IFIs for their *lack* of conditionality, a criticism which, with the benefit of hindsight, is generally thought to have been justified during the 'lost decade'. As far as loans are

⁷⁷ Shah et al op cit p.14

⁷⁸ direct observation by author

⁷⁹ Camdessus op cit. p 25 also Mehta op cit. p 98

⁸⁰ Mehta op cit. section p.35 and generally 2.3-2.4

⁸¹ Mehta op cit p.36

concerned, the first condition is that they be repaid, otherwise they are grants. From that basic condition other things follow namely the need for a revenue stream to be generated. To the extent that existing institutions are judged unable to meet repayment conditions, then there is a bias against the public sector, and this has come to be defined as PSP conditionality.

4. Private sector financing for water operators

NB The role of the private sector is discussed at greater length and detail in the parallel paper on the International Context for PSP.

What is the impact of withdrawal of MNCs from international investment?

It is fair to say that the situation today regarding private sector investment is different from that in the 90's, reaching a low around 2002. Here are some examples⁸²:

- Global PSP project lending in 2002 was 43% down on the previous year (all sectors)
- Less than 0.3% applied to WSS
- 50\$Billion were committed to 380 developing country WSS projects 1990-2005. In 2005 just 1.5\$Billion was invested in ten countries and most of that in China 56% and Algeria 34%. (excluding Malaysia Syabas concession, 2004)

According to PPIAF (Public Private Infrastructure Advisory Facility) water and sanitation investment was running at only three per cent of all private project infrastructure investment in 2001-6 compared with six per cent in 1990-2000. Thus water and sanitation account for a smaller slice of a shrinking cake, for general infrastructure investment was still 20% lower in 2005 than at the peak of 1997⁸³.

Scale and impact of private equity investors

Interest has been expressed in the prospect of private equity investors stepping into the 'vacuum' left behind by the apparent decline in investment by the 'traditional' private players.

Private equity firms have become significant investors in water utilities. Our academic panel has taken the view that it is too soon to tell, however, if they are buying water companies on the same basis as they are buying other companies – quick turn-around sales are not likely. It is more likely that they are looking for long-term secure investments with regular and reliable returns. It is not yet clear what they're going to do, because quite simply not enough time has passed⁸⁴.

- Sixteen companies are either held by what are essentially financial investors: one in France, two in the US, five in Chile and eight in the UK, including three of the 10 water and sewerage companies.

⁸² Camdessus op cit. p. 27

⁸³ PPIAF presentation to Technical Advisory Panel January 2008

⁸⁴ David Hall academic panel, Bali 2007

- Ten new company entries have been made in the last edition of Pinsent Masons Yearbook; two in Australia, one each in Kuwait and the Philippines, and the remaining six in Western Europe. For Kuwait and the Philippines, there were new (local) owners for local companies, and the Australian entries reflects the country's interest in private equity⁸⁵.

Recent bidders for Manila West included not only Manila Water Co (i.e. the incumbent from East Manila) but also firms from Hong Kong, India, Singapore Malaysia, and companies registered in Cayman Islands and Virgin Islands. Winpenny identifies *Water Services as a portfolio choice by financial and investment companies... This is an aspect of the growing worldwide interest of banks and other financial groups in buying water service companies*. Southern Cross (registered in the Cayman Islands) bought out Thames in Chile⁸⁶.

However, it would be a mistake to read too much into these trends. Of the recent new market entrants traced by Winpenny, only five per cent are sponsored by finance houses. Also significant is that pension funds and institutional investors have a long term view, they are denominated in local currency, they may seek a 'responsible' lending policy in sectors which bring social benefits but also carry low risk and they may seek returns which are steady rather than spectacular.

What is clear is that PSP in WSS is becoming less influenced by a handful of dominant private European companies. It is diversifying and 'regionalising' For example, national or regional firms took on utility concession contracts in 2005 in Argentina, Brazil, China, Colombia, Malaysia, Russia.

Conclusion

Despite the desperate state of the water sector in many countries, and the decline of investment and ODA devoted to water since the '90s, there are signs of emerging consensus as the weaknesses in the traditional public sector models and the private sector 'big bangs' that were hoped to provide the alternative have both become apparent.

Lines are becoming blurred between public and private as public utilities seek finance on the money markets and private service providers are operating increasingly in a contractual relationship to public providers rather than taking over the entire operations, as happened during recent years. The need for public utilities to operate in a more business-like fashion is widely accepted although the extent to which this means they can move to cost recovery pricing for example remains very constrained.

⁸⁵ Richard Franceys academic panel, Bali 2007

⁸⁶ J. Winpenny, *Opportunities and challenges arising from the increasing role of new private water operators in developing and emerging economies*. Background issues paper for OECD Global Forum on sustainable development Nov 2006 OECD Paris

The inaccuracy of many of the traditional consumption subsidies is becoming apparent and the greater accuracy of access subsidies rather than drinking water consumption subsidies as anti-poverty measures is also becoming clearer. Immense problems remain in the sanitation sector and that underlines the urgency of better targeting of subsidy for it is in sanitation that funding is most hard to find.

The trend towards decentralisation is clear but it has taken time for this to be accompanied by financial instruments that allow real autonomy. In this respect there is still a long way to go although there is a great deal of innovation, much of it aided by ODA. The role of ODA is shifting too towards fostering innovation, often involving civil society, and developing guarantee mechanisms for the newly decentralised systems to use to ‘lever’ capital. The crude conditionality of the past vis-a-vis the private sector is far less in evidence now, although conditionality will never be entirely absent.

The controversy surrounding PSP clearly took its toll on the private sector at the end of the ‘90s but it is not the case that PSP is in retreat, despite appearances to that effect (see paper on PSP). But it is clearly in a state of mutation to a new role, with a greater diversity of actors, including community based organisations, a greater role for local actors in developing countries and a greater recognition of the role of the basic SSIPs which serve vast numbers of people (see paper on PSP). Again the debate over SSIPs demonstrates a convergence of approach, possibly allowing them to graduate from the ‘default’ option to demonstrating advantages of ‘design’.

ANNEX

A Summary on Credit Ratings

A rating is used to assess the likelihood that an issuer of a bond will be able and willing to pay back their debt in future. The rating provides an indication of the agency’s judgement on the potential that the issuer will “default” on payment – as stated in RatingsDirect (Standard & Poor’s own monthly newsletter) *‘default studies have found a clear correlation between credit quality and default remoteness: the higher the rating, the lower the probability of default, and vice versa.’*⁸⁷ Ratings are not recommendations to buy or sell, and nor are they ‘opinions’ on policy.

The four best-known credit rating agencies are Moody’s Investors Service, Standard & Poor’s, Duff & Phelps Credit Rating Co., and Fitch IBCA, Inc. The table below is an illustration of the rating symbols used by these agencies for long-term debt.⁸⁸

⁸⁷ RatingsDirect, February 2008, Standard & Poors: 10

⁸⁸ Chapter 6, 161-196: Credit Ratings and Bond Issuing at the Subnational Level: Training Manual, A Report commissioned by The Global Program on Capital Markets Development at the Subnational Level

Moody's	Standard & Poor's	Fitch IBCA	Duff & Phelps	Interpretation
Aaa	AAA	AAA	AAA	Highest quality
Aa1, Aa2, Aa3	A+, A, A-	A+, A, A-	A+, A, A-	High quality
Baa1, Baa2, Baa3	BBB+, BBB, BBB-	BBB+, BBB, BBB-	BBB+, BBB, BBB-	Strong payment capacity
Ba1, Ba2, Ba3	BB+, BB, BB-	BB+, BB, BB-	BB+, BB, BB-	Adequate payment capacity
B1, B2, B3	B+, B, B-	B+, B, B-	B+, B, B-	Likely to fulfill obligations; ongoing uncertainty
Caa, Ca	CCC+, CCC, CCC-	CCC, CC, C	CCC	High-risk obligations
D	D	DDD, DD, D	DD, DP	Current vulnerability to default

Source: Interpretation from Richard Cantor and Fred Packer, Federal Reserve Bank of New York. Readers should note that individual credit agencies may not agree with this interpretation. Rating agencies do not design their rating scales to conform with each other or with easy summaries.

In reference to the criteria adopted by each of these agencies when establishing a rating, The Report of the United Nations Conference on Trade and Development⁸⁹ noted that:

Identifying the relationship between the CRAs' criteria and actual ratings is difficult, in part because some of the criteria used are neither quantitative nor quantifiable but qualitative. The analytical variables are interrelated and the weights are not fixed either across sovereigns or over time. Even for quantifiable factors, determining relative weights is difficult because the agencies rely on a large number of criteria and there is no formula for combining the scores to determine ratings.

Nonetheless, these agencies do specify the broad criteria by which they assess sovereign and sub-sovereign entities – an example can be seen in the table below. Broadly the criteria used to assess ratings are economic base, diversity and growth; analysis of outstanding debt; financial operations, revenue and expenditure flexibility; government's administrative structure, legal factors, political dynamics; and sovereign ceiling. More specifically when assessing the rating for a project, factors of economic feasibility, credit risk, management, and bond covenants in the context of the legal and policy framework of the country come into play.

⁸⁹ Section III – Credit Rating Agencies' Procedures and Methods, 4-8: United Nations Conference on Trade and Development, January 2008 - *Credit Ratings Agencies and their Potential Impact on Developing Countries*

Example of CRA criteria for ratings:

Moody's Investors Service⁹⁰

Sub-national Governments: A Rating Agency Perspective

- Sovereign ceiling on foreign currency debt rating
- No such restraint on domestic currency debt ratings

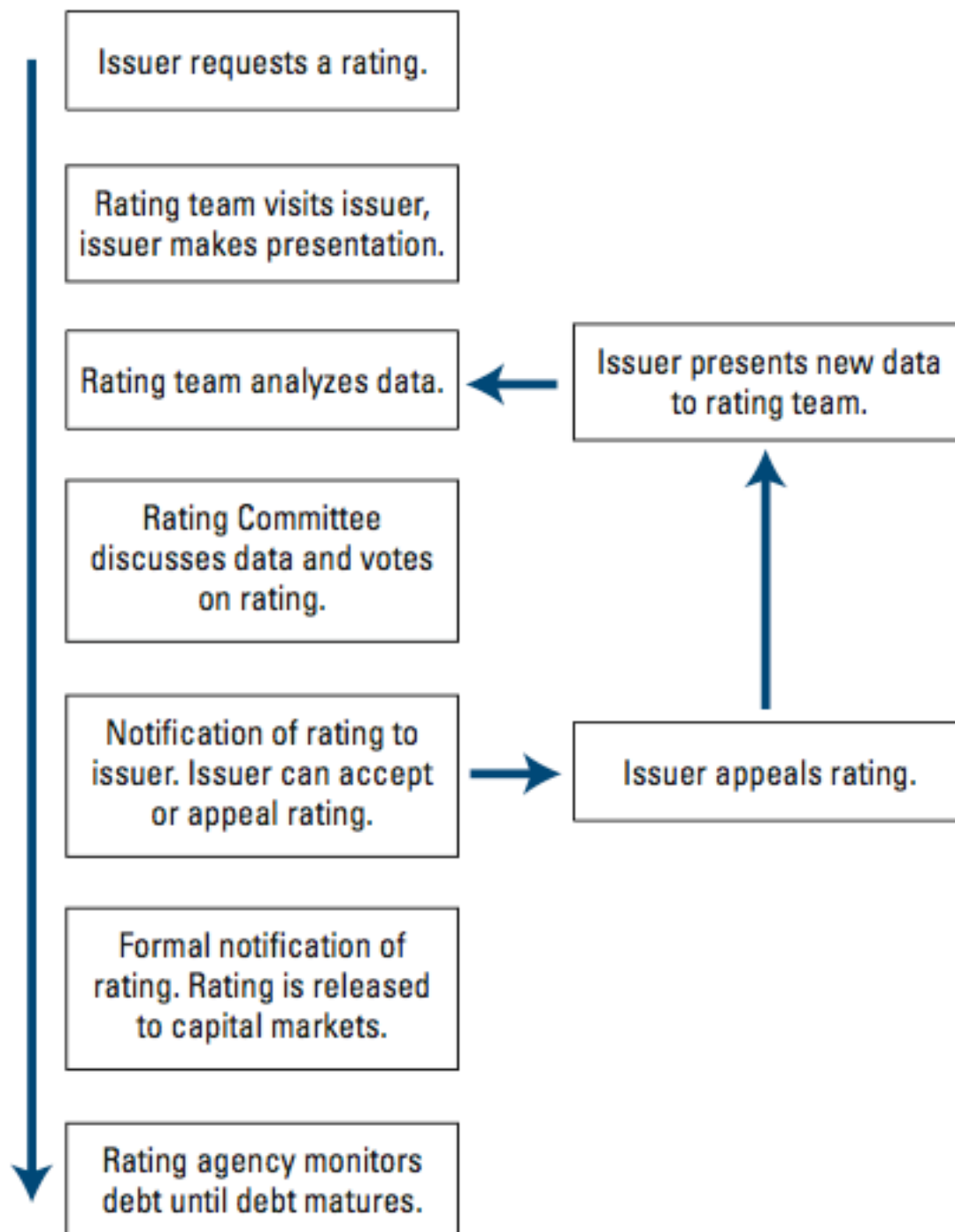
Major Rating Criteria	Sub-criteria
1. Institutional Framework	<ul style="list-style-type: none"> • Explicit guarantee from the sovereign • Oversight from the sovereign • Support from fiscal transfers
2. Economic Fundamentals	<ul style="list-style-type: none"> • Size and depth of economic base • Economic vitality and performance • Socioeconomic profile (wealth levels and demographics)
3. Budgetary Framework	<ul style="list-style-type: none"> • Revenue base and taxation powers <ul style="list-style-type: none"> – Diversification elements – Discretionary powers – Fiscal transfers • Expenditure base <ul style="list-style-type: none"> – Scope and nature of spending responsibilities – Current vs. capital spending – Discretionary vs. statutory obligations
4. Budgetary Performance	<ul style="list-style-type: none"> • Budgetary position <ul style="list-style-type: none"> – medium-term trends – source and nature of budgetary pressures – cyclical vs. structural – debt service burden – net financial position • Fiscal policy • Multi-year goals • Nature of consolidation efforts <ul style="list-style-type: none"> – temporary vs. structural – tax increases vs. spending cuts
5. Debt Profile	<ul style="list-style-type: none"> • Legal underpinnings • Debt burden • Direct debt • Off balance sheet items • Debt structure • Bullets vs. serial vs. sinkers • Maturity profile/refinancing needs • Short-term debt • Foreign exchange exposure

⁹⁰ Appendix 1, 255: Credit Ratings and Bond Issuing at the Subnational Level: Training Manual, A Report commissioned by The Global Program on Capital Markets Development at the Subnational Level

	<ul style="list-style-type: none">• Future borrowing requirements
6. Government Structure and Political Dynamics	<ul style="list-style-type: none">• Political institutions• Capacity to develop and implement economic and fiscal policy framework• Quality of management• Administrative willingness to meet obligations

A diagrammatic interpretation of the process for establishing a credit rating can be seen below:⁹¹

⁹¹ Chapter 6, 161 - 195: Credit Ratings and Bond Issuing at the Subnational Level: Training Manual, A Report commissioned by The Global Program on Capital Markets Development at the Subnational Level

Figure 6.2: The Credit Rating Process

So, why are credit ratings important? As noted in the Global Program on Capital Markets training manual, ratings ‘provide information to the investment community and facilitate access by investors to debt offerings. They also affect the costs to both sides of buying and selling debt.’⁹²

⁹² Chapter 6, 161 - 195: Credit Ratings and Bond Issuing at the Subnational Level: Training Manual, A Report commissioned by The Global Program on Capital Markets Development at the Subnational Level