



# Cynulliad Cenedlaethol Cymru The National Assembly for Wales

## Y Pwyllgor Amgylchedd a Chynaliadwyedd The Environment and Sustainability Committee

Dydd Mercher, 13 Mawrth 2013  
Wednesday, 13 March 2013

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In the left-hand column, the proceedings are recorded in the language in which they were spoken. The right-hand column contains a transcription of the simultaneous interpretation

#### **Aelodau'r pwyllgor yn bresennol** **Committee members in attendance**

Mick Antoniw	Llafur Labour
Keith Davies	Llafur Labour
Yr Arglwydd/Lord Elis-Thomas	Plaid Cymru (Cadeirydd y Pwyllgor) The Party of Wales (Committee Chair)
Russell George	Ceidwadwyr Cymreig Welsh Conservatives
Vaughan Gething	Llafur Labour
Llyr Huws Gruffydd	Plaid Cymru The Party of Wales
William Powell	Democratiaid Rhyddfrydol Cymru Welsh Liberal Democrats
David Rees	Llafur Labour
Antoinette Sandbach	Ceidwadwyr Cymreig Welsh Conservatives

**Eraill yn bresennol****Others in attendance**

Yr Athro/Professor Martin  
Cave

**Swyddogion Cynulliad Cenedlaethol Cymru yn bresennol****National Assembly for Wales officials in attendance**

Alun Davidson	Clerc
	Clerc
Elfyn Henderson	Gwasanaeth Ymchwil
	Research Service
Catherine Hunt	Dirprwy Glerc
	Deputy Clerk

*Dechreuodd rhan gyhoeddus y cyfarfod am 10.52 a.m.*

*The public part of the meeting began at 10.52 a.m.*

**Polisi Dŵr yng Nghymru—Gwybodaeth Gefndirol**  
**Water Policy in Wales—Scene Setting**

[1] **Yr Arglwydd Elis-Thomas:** Croeso i drafodaeth gyntaf y Pwyllgor Amgylchedd a Chynaliadwyedd ar fater polisi dŵr. Roeddem wedi penderfynu cynnal ymchwiliad ac roeddem yn meddwl y byddai'n syniad da i ddechrau gydag un o'r arbenigwyr pennaf yn y Deyrnas Unedig ar bolisi cystadleuaeth. Mae'n bleser gennyf groesawu'r Athro Martin Cave i gyflwyno tystiolaeth i ni'r bore yma.

**Lord Elis-Thomas:** A warm welcome to the Environment and Sustainability Committee's first discussion on the issue of water policy. We had decided to conduct an inquiry and we thought it would be a good idea to start with one of the most prominent experts in the United Kingdom on competition policy. It is my great pleasure to welcome Professor Martin Cave to provide evidence to us this morning.

[2] You are very welcome and I invite you to present a short, concise sermon at the start of our proceedings.

[3] **Professor Cave:** It is a great pleasure to revisit this rather splendid building and to continue my earlier discussions with some of its occupants about water. I do not want to make a long introduction, I just want to tell you a little about myself and how I became involved in this aspect of economic policy. By trade, I am a regulatory economist, which is a slightly uninteresting sounding activity. It does have its longueurs, I acknowledge, but, just the same, for aficionados, it can be quite riveting. I have worked in universities for many decades. I have also worked a lot with regulators, both in the UK and overseas. I am currently a deputy chairman of the Competition Commission, although I am not speaking for the Competition Commission today. Most of my work had been in re-regulating other sectors, particularly by means of injecting elements of competition into them.

[4] You will recall the traditional way in which the network industries and utilities operated: they were monopolies. However, in the 1990s and 2000s, Governments all over the world started reconfiguring them. They cut out the bits that were monopolies and kept them as monopolies, but, in respect of the other bits that were competitive—electricity generation, for example—they introduced elements of competition into those. That has not happened to water. Water is pretty much the last frontier after telecoms, post, electricity and gas. Therefore, it is natural for people's thoughts to turn to the question of whether there will be benefits associated with adopting the same approach to the water sector. Water, obviously, is different, in the sense that it tends to be much more localised in production and consumption.

It is very heavy to move about. Its links to public health are probably quite as strong as the links of the energy sector to social objectives. As far as poverty is concerned, we know that energy poverty is a big problem, but now water poverty has entered as a kind of second and subsidiary source of difficult circumstances for many people.

[5] I had not worked on water in any systematic way until 2009, when I was asked by the last Labour UK Government, and your own Ministers, to prepare an independent review of competition and innovation in the water sector. That was completed in 2009, nearly four years ago. I am bound to say that not much has happened to it since, but that is the way of the world in these matters. Things might be moving a bit now. I approached it, I hope, in an undogmatic spirit. I always claim to be undogmatic, but I am sure that a lot of people would take a different view. In my view, competition is just a means to an end. If it is not going to benefit the end users, namely the customers, then we should junk it.

[6] Competition in water has not been tried internationally—except in limited parts of Australia—and therefore it is important to adopt a cautious approach to it. Therefore, the approach that we took in the review was a kind of softly-softly, see-as-you-go one. That is what our recommendations were. We had a kind of watch phrase: trust and verify. What that meant was that we had to trust competition to some degree; on the other hand, we should verify it at every stage to see whether it was delivering the results. I Googled that phrase and it turned out to be used by two figures in the last century at the very opposite ends of the political spectrum: one was Felix Dzerzhinsky, who founded the KGB in the 1920s, and the other was Ronald Reagan, who used it over arms control. I guess that may suggest the phrase has a slight element of paranoia in it. However, paranoia is just one step forward from caution.

[7] Anyway, that was the result as far as I was concerned. For the past four years, I have been following the debates, which have now begun to come to a head with the publication of, first, the draft Bill and then, secondly, the scrutiny committee's report on the draft Bill. I understand that a Bill team has been established in the Department for Environment, Food and Rural Affairs, in the hope that parliamentary time will be made available so that something will come forward.

[8] What I hope you will discuss today are the various forms of competition and what the chances are that they are going to have a beneficial effect on energy use. That is my touchstone. If they are not going to benefit end users, then I do not think that we should use them. After that short sermon, I will hand back to you, Chair.

[9] **Lord Elis-Thomas:** Thank you very much. I would like to ask you to give your assessment of the governance and potential for competition of the water business, water industry or the supply in the various parts of the United Kingdom, and the issues that the UK Government legislating for the whole kingdom will bring up. I am thinking, obviously, of the situation in Wales, where we have a not-for-profit utility that is related to a trust; where the emphasis of the new environmental body, natural resources Wales—which begins at the beginning of next month—is on an ecosystems approach, generally, and water resources will be part of that or will have to relate to it; and—coming, as I do, from an area that has a few reservoirs—where the whole question of water supply has been a politically controversial one in the last century. Does that give you enough to cover in response to my question?

11.00 a.m.

[10] **Professor Cave:** If anything, it is too much, so you will probably have to come back on some of the points. We observe now, which is very interesting for someone like me who studies these things, rather different approaches taken in Northern Ireland, Scotland, England and Wales. In Northern Ireland and Scotland, the water industry is still in public ownership,

but the situation with respect to charges paid by domestic customers in Northern Ireland is that they pay through the rates, so they have no feeling of having a commercial relationship with the supplier. Scotland is interesting in another way, because it has been the pioneer in developing retail competition for business customers, which they have had for around three years. There has been a certain amount of switching by customers, but probably not a great deal, however, it has enabled business customers to enter into a dialogue with alternative suppliers and, as a result of that dialogue, to choose between the two or three alternatives that they have. In many cases, they have chosen the incumbent company, but they have had the opportunity, as customers, to enter into that form of negotiation.

[11] In England, as you will know, the water and sewerage companies are investor owned. Here, in Wales, you have your own system with respect of Dŵr Cymru—I apologise if I have grossly mispronounced that—where it is owned in a rather complicated kind of mutual way. I find it very interesting to have these variants. The Welsh variant is extremely interesting and it represents a kind of challenge to people who are supplying water and sewerage under a different regime. It is obviously a difficult thing, on the basis of the experience we have, to say that a certain method is good or bad, although, I do not suppose that you will find many supporters of a regime in which there is no payment for water directly, such as happens in Northern Ireland where there is very little metering.

[12] As for scope for competition, in the review that I did—and it is an entirely obvious way of doing it, so I claim no originality for it—we started off by talking about injecting competition just into the retail segment of the market. That represents around 5% or 10% of the value chain—it is pretty small potatoes. However, as I described in relation to the business customers situation in Scotland, it offers a choice. I suppose it is fair to say that it is a relatively non-risky method of putting your toe in the competitive water if that is what you want to do. I am happy to say a little more about the applicability of that in due course.

[13] The other category of competition is associated with the upstream. The upstream represents something like 90% and more of the total value. Simple arithmetic suggests that if you want to have any effect, it would be through operating on the upstream. What do I mean by ‘upstream competition’? It is generally recognised that it can take a variety of different forms. It could take the form of a situation in which a new territory is being developed—a new housing estate, for example—and where there is competition between the incumbent water company and a variety of other possible suppliers to build and operate the pipes in that area. That is what was formerly called ‘inset appointments’ but is now called ‘variations’. That is competition with respect to who provides the pipes. Normally, however, the pipes—certainly the existing pipes—are regarded as being a natural monopoly, which it does not make any sense to duplicate. So, that means that upstream competition is likely to take the form of somebody other than the incumbent water company injecting water—probably treated water—into the system, and that would mean that, in a sense, it was replacing or competing with the incumbent company’s own facilities for the treatment of water.

[14] This might take various forms. It might take the form of a treatment plant being established within the territory where somebody gets hold of some raw water and being able to treat it and inject it into the pipes, in essence, to sell it to the incumbent water company, in replacement of additional facilities that it might otherwise have built itself, or it might take the perhaps more natural form in the circumstances of a water company in one area buying water from a contiguous company. That would mean that the water would, so to speak, pass through a hole in the wall and would be treated in area A, purchased in area B and used for area B’s consumers. That has the advantage of introducing some kind of inter-regional trade in the water system, where there are surpluses of water in some parts of the country and deficits in other parts of the country. That is a way of solving that particular problem, which obviously could not be resolved by introducing competition within the same area, because the suppliers would be competing for the same water.

[15] There are all these different ways in which competition can be introduced, but ultimately, as you say, Chair, it depends upon the availability of the water. The way in which abstraction rights work at the moment means that most of them are vested with the incumbent water company, and others are vested with industrial users such as power stations. In some parts of the country, probably less so in Wales than in East Anglia, some of them are vested with farmers, so they actually own abstraction rights. In a sense, you cannot really get the competitive process going, if you want to, without in some way making water available, because water is, after all, where it starts. You cannot fill a bath without water. So, it is very important to consider the control over those basic water resources. As you rightly say, historically, the arrangements have been made between water companies in England and Wales for the supply of water. That would now be termed a 'bulk supply agreement'. Given the focus that there has been recently upon inter-regional exchanges of water within England and Wales, bulk supply agreements of that kind will probably become more common. They can be with respect to untreated water or treated water, although, obviously, the transport problems are different in each case.

[16] Therefore, what I am suggesting is that there is a whole range of possibilities as far as the introduction of competition is concerned. You begin with retail and then you might look at other forms of competition. This was our strategy; we started with retail and then looked at fairly straightforward forms of upstream competition, but we recognised that you have to do something if you want to introduce competition and allow it to flourish. You have to do something with respect to rights to water, because the process would not get going without that starting point.

[17] **Lord Elis-Thomas:** I have one further question and then I will open it up to other Members. To what extent does your overview of competition and the development of competition within the water industry follow the analogy of the energy sector, and to what extent is that analogy sensible?

[18] **Professor Cave:** The basic approach of introducing competition in network industries is to identify bits that are monopolies, which are typically pipes or wires and things of that kind, and then you identify bits that are potentially competitive. So, I have given you, so to speak, a range of possibilities for bits that could be potentially competitive regarding the supply of treated water and the supply of raw water and the treatment of water, in gaining access to abstraction rights. So, at that very large level of generality, you are doing the same thing with energy as you are doing with telecoms and as you are doing with post. So, there is that similarity, but just looking at those three comparators—energy, telecoms and post—you see a whole range of different outcomes in terms of competitiveness. In telecoms, there is a very high level of competitiveness and, in energy, there are contested levels of competitiveness, because some people are not particularly competitive at all. What that suggests to me is that, within this framework, you often come to forks in the road and you might take, so to speak, an energy fork in the road, which might end you up with a rather awkward and uncomfortable market structure. Equally, you might take the telecoms fork in the road and end up with a market structure that is much more competitive with lots of suppliers of broadband and so on. So, in a sense, the outcome depends upon the policy and regulatory decisions that are taken along the way. Energy is, I acknowledge, a rather cautionary tale in some respects, but it is not the only tale that there is. One hopes that policymakers and regulators would learn from history and avoid producing this kind of slightly stalemate situation that has arisen with energy.

[19] **Antoinette Sandbach:** Given that these reforms are proposed in England, and if the situation in Wales was not to change, could Dŵr Cymru still take advantage, as it were, of reforms happening in England and sell, for example, untreated or treated water to England with mutual benefits to customers in Wales, but without having competition in Wales?

[20] **Professor Cave:** That is a slightly complicated question because, in a sense, if I understand the regulatory system correctly, Dŵr Cymru is remunerated by the Office of Water Services. The amount that it can be paid from its customer is determined by what Ofwat considers to be the cheapest source of acquiring its supplies. So, if it were the case, for example—and I am not suggesting that it is—that it was much cheaper for Dŵr Cymru to import a lot of treated water from Severn Trent, for example, if Ofwat were persuaded of that, I think that it would remunerate Dŵr Cymru on the basis of the cost of that importing activity rather than the costs that are actually incurred by treating the same water. In a sense, if that policy were to be implemented—and, obviously, it is very difficult to implement because you are not really comparing like with like when you are talking about importing water versus water that is treated on the spot—the company would already be under an obligation or, at least, under an incentive as a result of that, to lay itself open, as you might say, to some form of competition. So, it is already under some pressure of that kind. Obviously, there would be differences between England and Wales if retail competition were available only in England and not in Wales. I think that I have answered part of your question, but I am not sure that I answered all of it.

[21] **Antoinette Sandbach:** I think that one of your recommendations was that what was the Environment Agency, and what will soon be national resources Wales, should be given new powers to tackle over-abstraction and to encourage the trading of licences.

[22] **Professor Cave:** That is something with which DEFRA is strongly seized at the moment, as are your Government and your Parliament, I am sure. Probably, with application, particularly to those parts of England that are subject to really quite severe, long-term water shortages, the nature of the problem is that licences have been issued in many parts of the country, particularly in the south-east of England, which, if they were used up to the hilt, would over-exhaust the river of resources. They are not used up to the hilt currently, and so the problem does not arise quite acutely. However, there are other areas where the licences have been not only over-issued, but over-abstracted. As we speak, too much water is being taken out of the rivers to make them sustainable. The problem that DEFRA faces is that the licences date back a number of years; they are rather hard to change and therefore the process of trying to overcome the difficulties associated with those two situations is really quite serious. As you are probably aware, the draft Bill that was published deferred until probably the next Parliament consideration of abstraction reforms to deal both with over-licensing and over-abstraction, and to deal with any attempts to try to reconfigure abstraction rights in a way that would make upstream competition easier to introduce. As things now stand, we will be stuck with that kind of regime for some time and, in the circumstances, apart from praying for rain, about the only thing that you can do is to devise mitigating measures.

11.15 a.m.

[23] **Antoinette Sandbach:** Rain is not something that we are short of here, certainly not in north Wales.

[24] **Professor Cave:** I am certainly aware of that. As we know, it is either a famine or a feast in other parts of the country too, which suggests to me, as a non-scientist, that things are probably going to get an awful lot worse in that respect. That, in my opinion, strengthens the case for this kind of incentive or facilitation of interregional trade. So, the thing about water pipes is that, rather like the electricity interconnector, the water can flow in either direction.

[25] **Antoinette Sandbach:** You were talking about the draft Bill in Westminster, which has changed things a little bit, but not enough, really, to introduce that upstream competition that you are talking about, because there has been a failure to look at the abstraction licences or to be willing to tackle the issue around the abstraction licences and the problems that they

are causing.

[26] **Professor Cave:** The form of competition or—quite honestly, it is not entirely clear whether it is competition or co-operation, but the form of activity that the draft Bill easily permits and that the regulator is trying to encourage is this business of the interregional trade of water. In the nature of things, the supplier has the abstraction rights because it is incumbent water companies, so the absence of abstraction rights is not problematic. Within the rubric of the Bill, it would be possible in certain circumstances for competition to go further in the following sense. Let us take two contiguous water companies in England, one of which has a surplus and one of which has a deficit, namely Severn Trent Water and Thames Water. Severn Trent could either sell a bulk supply under the Bill if it were enacted—well, it could do it now; it does not require the enactment of the Bill to do it. It could now simply sell a bulk supply of water to Thames. Bingo—it would go through the hole in the wall out of Severn Trent’s pipes into Thames’s pipes. When it crossed the border, it would become Thames Water’s and the water company would use it to service its providers.

[27] However, there is another possibility that is envisioned in the draft Bill, which is theoretically now available, but, in practice, for reasons that I will not bore you with, is not practicable. That would be an arrangement whereby Severn Trent would make a deal with a very large customer of Thames Water that used an awful lot of water. Severn Trent would then take its own water to its boundaries, pay a charge for leasing access to Thames Water’s pipes and then bill its customer. Obviously, it is not as though the water from Bristol is consumed by a food processing factory in Kent; it is just added to the general supply and becomes a part of it. That is a form of competition that the absence of abstraction rights for new competitors would not impede. So, that could come into effect if the companies decided to do it, because Thames would have no choice and a charge would be set by the regulator for moving and accepting the water. There would be an obligation, just as, for example, BT is under an obligation, if a mobile phone customer calls a fixed-line customer, to terminate the call on its network, and the mobile operator has to pay a little bit of money for access to its wires. So, that form of competition is there in the Bill, but the notion that it would be easy or possible for a completely new water company—Martin Cave Water Company Ltd., say—to suddenly get the money to build a treatment plant for £300 million and then to use that as a competitive weapon in an area serviced by an existing incumbent is pretty fanciful. Nobody would lend me £300 million in any circumstances, but they certainly would not lend it to me to build a treatment plant if I did not actually have a clear view of where I was going to get the water to treat.

[28] **Mick Antoniw:** I find your paper interesting in that, in many ways, it identifies how little I understand about the industry and the economics of it. There are still bits that I do not understand. The Welsh Government in 2012 was clearly not very keen on the whole idea, and certainly the letter from the Minister for Environment and Sustainability indicated that it really was not convinced. That is the area of my concern, really, because the experience with gas and electricity, and certainly the perception of nearly everyone I come across, is that no-one is better off as a result of what has happened. Certainly no-one feels better off; they just feel in many ways more disempowered and uncertain about who is actually in charge. There seems to be a bit of a concern from the Welsh Government side that water is very much going the same way—once you start introducing all these competitive factors it changes the whole ethos of a basic entitlement to one of the key requisites of life, and so on.

[29] What I am trying to understand is why we need to go down this road. In the paper, you talk about potential efficiency savings arising from this over time, but, if those go into private hands, then the customer does not actually benefit. What is the prime economic motivator behind this? Why do we really need to consider going down this road? Is it about competition and bringing in private interests, or is it about common access to a key utility?

[30] **Professor Cave:** Let me begin by making a remark about energy. Obviously energy competition applies to households as well as to businesses, and I am sure that you are right in saying that a lot of households are a bit disillusioned with it. When one actually looks at who has won from the competition among households, I think there is a pretty clear answer, and it is that people who switch their energy supplier get relatively cheap rates—obviously, the rates are rising for quite independent reasons associated with oil markets, et cetera—whereas the people who, like me, I am ashamed to say, just stagger on with their own legacy supplier for ever, are the people who get shafted, so the effect has been to introduce some kind of cross-subsidy across households. Obviously, if you do not introduce competition for households, which is the plan with respect to water, you do not run that particular risk, so, as far as the households are concerned, they carry on as before. Keep calm and carry on—they are never actually confronted with the choice. However, the firms do have that choice, so, to answer your question in relation to the firms, why would one want to give them that choice? There are a number of reasons. There is an argument that giving firms a choice is probably a good thing because they are in many cases large commercial organisations and they should be able to handle that kind of thing, because in their other purchase of inputs they have a choice, so they are used to that kind of context.

[31] Secondly, if you ask them through surveys, they express a desire to have a choice. I know surveys about a hypothetical situation have to be taken with a pinch of salt, but the Consumer Council for Water has done quite a lot of these surveys, including one in February and March of last year, in which it interviewed 2,000 small and medium-sized enterprises, and asked them various types of question. The first question was: as a matter of principle, do you think that you should have a choice of provider of water? In Wales, 80% of the SMEs said that as a matter of principle they thought they should. They were then asked some more realistic questions such as, ‘If you did have a choice, what better things would you expect to get?’ The sample in England and Wales said such things as, ‘I’d expect to get advice on water efficiency’, and ‘I’d expect to get advice on how to stop leaks on my premises’, and ‘I’d expect to get advice on environmental matters relating to discharges into rivers’. So, there was the appearance from this survey—again, all the caveats about surveys apply—that not all the respondents were entirely happy with the arrangements as they were and would therefore like to exercise a choice. Then they were asked whether, realistically, they would switch, and, in England and Wales, about a third said that they would switch. So, what I am suggesting is that that kind of evidence, and the evidence of what we have seen happening in Scotland, suggests that in business circles, but not in household circles—I do not believe that it exists there at all—there are signs that people actually want it.

[32] Now, what would the effects of that be? First of all, you would gratify their desire to make a choice. I believe, generally—I am not speaking about any particular company—that, when a former monopoly is subject to that kind of liberalisation, it tends to have a galvanising effect, and that galvanising effect in relation to a water company might relate not only to the business customers, but also to the household customers. So, there might be—and this is conjectural—a kind of spill-over from business competition into benefits for households. There will be all sorts of other pressures, which we may get on to discussing in due course, but that would be what I would regard as being the benefit.

[33] There is another problem in the water sector, and that is associated with the way in which it is regulated. Basically, Ofwat calculates the amount of money it can charge in total by looking at its capital base—the value of its investments—allowing a rate of return on that capital base, looking at its efficient operating costs, based in some degree on comparisons with other water companies in a similar situation, totalling the whole thing up and saying, ‘Well, okay, in this year, Dŵr Cymru is entitled to 700 million quid’, and then that is divided among all the customers to produce the desired total.

[34] In an ideal world, Ofwat would have the knowledge, particularly in relation to capital



investment, to say, ‘The cheapest way of doing something is this’ and it would just cost that particular capital investment, but, of course, it does not have that kind of detailed knowledge, so, I suspect that it has tended to be influenced by plans that the companies put forward, which tend, in the generality, to have a capital bias. Why do they have a capital bias? It is because the companies can often borrow money on the money markets at a rate that is lower than the rate of return that Ofwat allows them on the capital base. So, if they are allowed to earn 4% on something, but they are borrowing the money at 2%, then the extra 2% just goes straight to the bottom line. In Wales, of course, it would not go straight to the bottom line, because there is not that kind of bottom line. It would either go into cash reserves or it would be handed back to customers. However, the system that I have described, even in Wales, runs the risk that the company would not always look for the cheapest way of doing things, but it would be influenced by the regulatory system, almost against its will, in favour of some form of capital intensity.

[35] Now, if you have competition coming into that kind of world, the competitor might be able to see an opportunity. If the incumbent is choosing a relatively expensive way of supplying a new town, for example, the competitor might see an opportunity to propose a cheaper alternative, and then the incumbent, worried that this might happen, might have to abate its tendency towards this capital expenditure bias. So, that kind of competition, or even the threat of competition, could actually benefit consumers and keep costs down. That is the sort of thing that we have seen happening in other sectors. I cannot promise that it would happen in the water sector, because we have not tried it.

[36] **Lord Elis-Thomas:** I think that I have all of you now: Vaughan Gething, Keith Davies and David Rees, in that order.

[37] **Vaughan Gething:** I am interested in the points that you make in your paper. Just so I understand, when you talk about what the cost principle is, it is essentially the difference between the wholesale price of the water—the price of acquiring the water—and the retail price. It is basically the difference between the two.

11.30 a.m.

[38] **Professor Cave:** That is right. If you have a separate competing retailer, as in Scotland, it will buy the water from Scottish Water, and it will then sell it to the customer it has acquired. So, there will be a wholesale price at which it buys it from Scottish Water, and a retail price at which it sells it to the customer. I hasten to say that, in this system, the retailer does not see or touch the water. As far as the physical delivery of the water is concerned, it is exactly the same as it was before, but you create the wholesale and the retail price. The balance between those two things determines whether you can make a business as a retailer.

[39] **Vaughan Gething:** In your paper, you say that the margin needs to change. It is quite low at the moment, but for new entrants, to introduce competition, you say in your paper—and please correct me if I am wrong—that the margin needs to change, but not to the extent that you allow people to be inefficient. So, there is the question of whether it is worth the while of a new entrant coming in. At the moment, the costs are too narrow and so a new entrant cannot realistically come in. I am therefore interested in how you go about extending that margin, and where you draw the line so that you enhance competition without damaging the interests of the paying consumer—whether a household or a business. That is quite difficult to draw up in terms of the law. It is then a matter of leaving it to a regulator to decide where that would be.

[40] **Professor Cave:** This is obviously a problem that arises in all of the industries where this kind of unbundling and injection of competition has been tried. BT charges its competitors a wholesale price for services and simultaneously charges its customers a retail

price for the same services. The problem with the so-called ‘cost principle’ was that the costs that made up the margin were defined in such a parsimonious way, according to a particular principle for calculating such costs, that in many cases, you ended up with the wholesale price exceeding the retail price, so the retail margin was negative. It was just because the 2003 legislation, and its subsequent interpretation by Ofwat, encouraged granting the firms the ability to set their wholesale prices themselves and then that, in conjunction with the retail price that Ofwat sets, meant that the competitors were basically squeezed out.

[41] There is a more standard way of doing this, which is that, instead of using the method that was used, you would look at the costs that are incurred by an efficient retailer and then you would subtract those costs—the full costs that would be incurred by an efficient retailer—from the retail price in order to get the wholesale price. In other words, you would expressly construct the margin so that a retailer that was efficient would be able to make a living as a retailer, as opposed to the cost principle, where you end up with something much smaller so that the competitor does not have a chance. That is the way that it is done in many network industries. The proposal in the draft Bill is to extend that approach to establish the retail margin. Obviously, that gives the regulator quite a lot of discretion, because it is the regulator that has to determine what an efficient retailer would charge. So, the companies are probably worried that the regulator is going to give the competitors a bit of a leg up by making it a bit larger than it might otherwise be. If that is taken to an extreme, you would end up with inefficient retailers displacing the efficient retailer that is the incumbent. That is never going to benefit consumers.

[42] **Vaughan Gething:** We have seen in relation to postal services that the final mile obligation is a cost to the Royal Mail and it is fairly well accepted that it is lower. So, I understand where that anxiety would come from. I would like to track back to the point about trade to business and the example that you gave of, say, Severn Trent Water supplying a business in the Thames Water area; it injects the water in, it goes to them, and that is all well and good. I am interested in the practicality of that. If you have leaks within the network, or if you have demand within the Thames Water network, what then happens if the end business that has bought 100 million litres of water cannot access that water within the contract period? How would you resolve that? None of this seems to be that straightforward. Once you get past the basic principle that you could do a number of different things, how do you regulate for real situations that will happen at some point? When you look at the case for greater competition, how do you factor in those additional regulation burdens? It is the same for social tariffs if you needed to introduce those. That is another area of regulation that does not really exist at present but you would need to think about, and there is also the whole issue of average costs. I am interested in that element in a specific example of what you would do in that circumstance, but, more widely, how you would deal with the additional need to regulate.

[43] **Professor Cave:** As I said at the outset, my view is that you should do this one step at a time, starting with retail, and simultaneously encouraging this inter-regional trade. You could choose to do this more developed form of competition at a later stage, in which Severn Trent Water has a direct financial relationship with a large water user in Kent. Water is a long game; if it is a reservoir, the investment will take an awful long time to give a return. Laying pipelines can take an awful long time. Solving the abstraction problem that we have at the moment will take an awful long time. We should advance in a determined but slightly cautious fashion, verifying along the way about where the difficulties arise. I would be quite happy if the first phase of that upstream competition was confined to a system in which the incumbent water company was always the intermediary between the source of the water and the retailers and their customers. Therefore, you would not have at the first stage this ‘leapfrogging the pipes’ type of competition, because it will take quite a long time to set up the task in terms of costing access to the pipes.

[44] On the simultaneous point that you made that the regulator is going to be up to its

ears in discussions about social tariffs, those are for household customers, so an inter-firm transaction should not necessarily get involved in that. Regarding the way in which the timetable goes, as I understand it—I am sure that you and your colleagues are much better placed to speak confidently about this—the proposal is that the retail competition starts in 2017 and the upstream competition starts when the next five-year price control period comes to a close after 2019. So, we are not talking about stuff that is going to happen tomorrow—it is not an urgent, hi-tech type of situation where if we delay for two years, the country is ruined. It is an area for slow and steady progress. If we stop somewhere along the route because the next bit does not look particularly sensible from the customer's point of view, that is fine with me, as long as it is done for that reason rather than because it threatens vested interests.

[45] **Keith Davies:** Byddaf yn gofyn fy nghwestiwn yn Gymraeg. Roeddech yn sôn bod cystadleuaeth yn mynd i ddechrau yn 2017, ac mae fy nghwestiwn yn dilyn o'r hyn roedd Vaughan yn ei ofyn. Mae cyfrifoldebau gan Ddŵr Cymru sy'n llawer mwy na dim ond rhoi dŵr mas. Er enghraifft, dywedwch fod Tata Steel yn penderfynu ei fod eisiau prynu dŵr gan Severn Trent Water ac nid wrth Ddŵr Cymru, ond mae cyfrifoldebau penodol gan Ddŵr Cymru. O'r hyn a ddeallaf, o ran llifogydd, mae Asiantaeth yr Amgylchedd yn dweud ei bod yn darparu gwybodaeth, ond yn y pen draw y corff sy'n gorfod edrych ar lifogydd er mwyn gwella'r sefyllfa yw Dŵr Cymru. Mae'r un peth yn wir am garthffosiaeth; Dŵr Cymru sydd â'r gofal am hynny. Fodd bynnag, os yw Dŵr Cymru yn mynd i golli cwsmeriaid mawr fel Tata Steel, beth fydd yn digwydd i'r pethau eraill hyn?

**Keith Davies:** I will ask my question in Welsh. You mentioned that competition would begin in 2017, and my question follows on from what Vaughan asked. Welsh Water has far greater responsibilities than providing water. For example, say that Tata Steel decides that it wishes to purchase water from Severn Trent Water and not from Welsh Water, but Welsh Water has specific responsibilities. From what I understand, in terms of floods, the Environment Agency says that it provides information, but ultimately the body that looks at floods to improve the situation is Welsh Water. The same is true for sewerage; Welsh Water is responsible for that. However, if Welsh Water is going to lose major customers such as Tata Steel, what will happen to these other things?

[46] **Professor Cave:** You are right to remind me that I always think of the water industry in terms of the delivery of clean water, whereas an equal volume has to go out the other end and be dealt with in appropriate ways. So, my understanding is that Dŵr Cymru would, as a water and sewerage company, be remunerated for that activity. I am sure that it is making extensive environmental investments as anti-flood measures, which would be part of its capital programme. When those investments are made, they then go into the capital base, which I have described, and for the life of those investments, they would continue to earn a rate of return on the assets of around 4%, or something like that, in real terms and they would also be depreciated over time, so they would receive a payment for the depreciation.

[47] Interestingly, under the new regulatory regime, it can, to some extent, determine much more than it was able to in the past whether capital expenditure goes into the capital base and earns a return nearly in perpetuity or alternatively it can just take the money—in expenses, so to speak—and just be repaid, obviously with no rate of interest because there is no element of payments over time. So, Dŵr Cymru would be remunerated for those activities now and would continue to be remunerated for them. However, your concern is what would happen if it lost a large customer in this area. I think that the answer to that, broadly speaking, is that it should charge that customer something like the cost of supplying that customer. So, it should not be overcharging that customer and making an excessive profit out of that customer. So, if the customer goes away, the cost of serving the customer also goes away. So, if there is the right balance between the revenues that it gets from the works and the cost that

it has to put into them, then it should not be injured.

[48] The problem would be—and such a situation has arisen sometimes in the past with very small water companies in England—if a large part of those costs of serving the customer were capital costs, which you could not, so to speak, diminish if the customer went away just simply because you cannot hoik the pipes out of the ground and make them smaller. You are stuck with what history has given you as far as that is concerned. So, if a situation were to arise in which a huge volume of business migrated to another operator, then the company might get into difficulties. In those circumstances, under the regulatory regime, you can go to the regulator and say, ‘We’re in trouble; we’ve lost 10% of our revenue’. The regulator will examine the situation and allow you to increase your prices, if necessary. This used to be called, rather dramatically, ‘the shipwreck clause’. So, there is something in the system that deals with that.

[49] **Keith Davies:** So, the remaining customers are charged more.

[50] **Professor Cave:** Yes, that is the effect. However, the question would then be: why have you lost the customer? If you have lost the customer—and I am not talking about this particular company—because your costs are too high, because you are badly organised, then, in a sense, you should be subject to that kind of discipline. In particular, when the regulator heard your appeal for more money, the regulator could rightly say, ‘You screwed up; we will not allow the customers to pay’, and in the case of an investor-owned business, it would be the investors who would have to pay, and then they would fire the manager and everybody would live happily ever after, perhaps.

11.45 a.m.

[51] **Mick Antoniw:** I understand the theory, which sounds fine, but the real, commercial practice with these things—as happened, for example, with gas and electricity—is that companies are prepared to offer packages to secure the custom, often at a loss, and they statistically build in the prospects for a certain number of people to change back. You made the point earlier about those of us who are not very good at changing over, because you are continually chasing the penny as to where you get the deal. That is all built in to the statistics. The theory of what you are saying is right, but the practice is that you will end up with an enormous development of bureaucracy, manipulation schemes and so on, which are all pretty much unproductive, but which are all geared to securing market share. That then becomes the area of competition, rather than the efficiency and quality of supply. That seems to be what has happened in practice even with some of the big businesses that found themselves quite flummoxed with other supplies. Does that, ultimately, come down to solely a matter of the quality of regulation, or is it just, in many ways, a practical and inevitable consequence of going down the road of treating things like water, gas and electricity as commercial commodities as opposed to social commodities?

[52] **Professor Cave:** Parenthetically, you might consider trying to separate achieving your social goals with respect to some groups of customers by a range of instruments that are available, such as social tariffs. Making the heroic assumption that we have solved that problem—which we clearly have not as far as social tariffs and water are concerned—the question would then be: what would we do with the generality of customers who were able to pay their way and who did not require any kind of cross-subsidy? It should be common ground that we are only talking about businesses here—I do not think that anyone on the planet thinks that the time is right to establish competition for households in water; that is a bridge much too far. In other words, those at stake here are businesses rather than people.

[53] You have raised the spectre that there will be some kind of feverish activity, rather like our financial markets, and that customers will contract and re-contract and that

companies will end up servicing some people in Scotland, some people in Kent, some people in Lancashire, some people in Devon and so on. I do not think that that is going to happen at all. I think that, even if the kind of extended version of competition that I have described is introduced, where you contract directly with an out-of-area customer, it is pretty unlikely that it will be very widely used. There are a number of reasons for this. One is that you might find that the companies would say ‘What’s the point in my going and getting Tata steelworks in Wales if I know that, the next day, Dŵr Cymru is going to look at my portfolio of customers and just come in and take one of mine?’ There is quite likely to be a mutually agreed restraint over fishing in other people’s lakes. That it is a more likely outcome than ending up with a very feverish passing on of customers all the time. If that is a good form of competition, which it has not yet proven to be, we would not see much of it, because of the degree of mutual restraint that would be exercised by the parties concerned.

[54] **David Rees:** Let us take the other utilities, such as gas, oil and electricity; I do not see benefits to some bigger companies in that sense, because they are paying huge rates at the moment for electricity. They might have thought that it would be wonderful, but it is not beneficial to them. You are talking about a cartel, effectively, not infringeing upon each another, so is there a need? That is the first question. Your paper highlights that deregulating the non-domestic sector—which is what we are talking about—would mean a likely cost to the domestic sector. So, if there is no competition in the domestic sector, there are possible implications of cost rises as a consequence of what is happening. So, is there really going to be any benefit in such a deregulation?

[55] **Professor Cave:** Nobody can say exactly how far competition will go. Nobody can be absolutely certain about the degree to which it might take a dysfunctional form. As far as the particular concern that you have mentioned about a cross-subsidy emerging from non-competitive households to competitive businesses, that is obviously a risk. However, it is a risk that anybody can spot from 1,000 yards. It is a risk that any regulator who is not half-asleep at the wheel should be able to take measures to prevent. The only problem that would arise would be if there were very poor regulation in the sector and, as a consequence, the cost allocation business of the regulator was done improperly. That eventuality might then emerge. In a sense, we rely on regulators getting fairly elementary things right all the time. If we did not do that, we would be in a bad way.

[56] **David Rees:** Turning to the more practical side of things, you have mentioned the possibility of customers being—I will not use the word ‘poached’—taken by another company. The assumption in those instances is that we are still talking about using the incumbent’s systems and infrastructures to deliver the products.

[57] **Professor Cave:** We are now talking about the extended form of competition. The basic form of competition is where the incumbent controls all the water that crosses the transactions boundary to customers or other retailers. In that environment, there is a single source of water in the region at the boundary between the wholesale business and the retail business, so one organisation is doing all the purchasing. If you are in that kind of situation, many of the potential problems associated with the assault on averaging disappear. If there is only one company that you can get water from in your area, and that company is required by regulation to sell all the water at a uniform price, the problem of de-averaging has been solved. It is only when you take this next step and have the more extended version of competition that even the possibility of de-averaging and cross-subsidisation arises.

[58] **David Rees:** There are national grids in operation for electricity and gas. Are we in a position, infrastructure-wise, to say that there is now a national grid for water?

[59] **Professor Cave:** The whole of the nation is covered with water pipes but the water pipes are not mated up and we do not have the equivalent of pylons stalking over the land and

carrying high-voltage electricity, which I am sure is a good thing.

[60] **David Rees:** For that purpose, the investment into inter-region areas will have be quite large. With ‘inter-region’, are you talking about next-door neighbours rather than true inter-regions?

[61] **Professor Cave:** You are probably aware that there are all sorts of schemes that people have dreamed up for taking water from, say, Lancashire and past the Houses of Parliament two weeks later, or whatever. Those are interesting, but it seems from work that Ofwat has done that there may be some fairly limited schemes where you deftly install a pipe to connect to water catchment zones and then rely on the pre-existing factors—either pipes or, possibly, even rivers and canals—to do the rest of the work. In a sense, one of the merits of competition is that, if you are operating within a framework, you are leaving the decision about whether to invest in these things to the firms that put up the money. They will only put up the money if they are convinced that a scheme that they have in contemplation is likely to be used enough to generate a return. It is not like the regulator saying ‘You have to build this pipe from London to Newcastle’. It is more a question of saying that once they get the abstraction thing sorted out, so that water in situ is priced at its scarcity value rather than what it is at the moment, which is a number that has nothing to do with scarcity and is dreamed up by the Environment Agency, people will be able to decide whether it is worth making investments in these schemes. That is the concept.

[62] **David Rees:** Your paper, from the way that I read it, focuses very much on the upstream activities. Therefore, you see that that is where the prevalence of any competition is going to exist, in the short term, anyway.

[63] **Professor Cave:** Yes. I suppose that the reason the paper takes that form is because the Consumer Council for Water asked us to write a paper about whether there were dangers to customers upstream. At the same time, I think that upstream is where the big benefits, or alternatively, costs lie, simply because it is 90% plus of the value chain. There is not much that you can do with the retail bit to benefit end users. The big benefits would come from rationalisation of extraction and moving away from this kind of bias towards capital intensive methods. One thing that I have not yet mentioned is innovation.

[64] **David Rees:** I saw that you argued that innovation comes from competition.

[65] **Professor Cave:** Yes. If there is nobody standing behind you prepared to eat your lunch and you have to decide whether to do something novel and dangerous, I think that you might say, ‘Let us carry on as before; it has worked for the last 30 years, so let us keep going’.

[66] **David Rees:** I also then worry about who carries the cost for leakage matters, which is a big issue in the water industry. It is continually argued that this is a heavy burden on the industry. Who is going to carry that burden, if we are talking about that type of competition?

[67] **Professor Cave:** If you are dragging water out of the river for approximately zero price, the fact that you are losing 30% of it on the way is not going to make you do much about leaking. So, I think that the way to solve the leaking problem is to have a proper price for water. Then, anti-leakage measures become driven by a rational scarcity value of water. You end up with an appropriate level of leaking. I do not believe that the appropriate level is zero, because bringing us down to zero leaking would involve replacing the whole pipe network, which would cost about £200 billion. What you would do, in the event that abstraction prices went up to reflect scarcity values, is look much more carefully at your leakage. You would also look more carefully at a whole bunch of other things, such as whether it makes sense to spend more on educating your customers to use less water. You would look at all these possibilities if you were guided by a rational price for water. That, in

the end, would be very beneficial for consumers and, of course, the environment.

[68] **William Powell:** A number of my questions have already been asked, but in your opening remarks, professor, you referred to the particularity of the business model of Dŵr Cymru. In your review, you referred to the benefits that it has. I wonder whether you could expand a little on those benefits and also explore with us any negative aspects that you think come with the model that we have in Wales.

[69] **Professor Cave:** I will deal with the last bit first. What I have said about competition and its alleged benefits is that it tends to promote efficiency; it gives people a choice and encourages innovation. It seems to me that all those arguments apply whether it is a not-for-profit or a for-profit company. You cannot escape some of the baleful impacts of the regulatory system just through being a not-for-profit company. So, I think that there are disadvantages in that form of monopoly that apply to Dŵr Cymru as well.

12.00 p.m.

[70] On the other hand, it has certain advantages: one is very obvious, which is that it gives us another model. So, we can conduct a kind of natural experiment in what is the best way to run the water sector, because, as you probably know, the UK is most unusual compared with the rest of the world; almost everywhere in the rest of the world, the water and sewerage industries are run at a very small, municipal level and are normally in public ownership. So, as a result of the decisions made in the 1970s and 1980s, we have got ourselves in an unusual place. If I were talking to Italians—as I was yesterday—about the water industry, I would not immediately say, ‘Well, you’ve got to amalgamate and form a small number of huge sectors and sell them to private equity funds in Dubai, or something like that’. If you start from a different place, you probably go off on a different path, but we are where we are. As for what the benefits are, there is the advantage that you are not shelling out dividends to shareholders. If you look at the dividends that some of the companies have paid their investors, they are very large indeed, and they have been, in my opinion, rightly criticised for that.

[71] The approach to financial innovation would be different in a company run on the same principles as Dŵr Cymru. There was a period at the beginning of its life when it had very high gearing; it did not have many reserves in the form of cash or equity. People expressed the fear that, if anything went wrong, the Government would have to sort it out; there was not a kind of cushion. However, if you look at what it has now, you will see that it has a huge cushion of cash: £1.6 million or something like that. It is not a high-g geared water company now, because of that cushion. So, that concern has been overcome. So, I suppose I welcome its presence as a different model, but the nature of its model does not cause me to flip on the question of the benefits of competition. Those benefits are still broadly there. According to the data that I quoted to you from the Consumer Council for Water, with all the problems with them, the SMEs in Wales seem to indicate that they have an appetite for choice.

[72] **Llyr Huws Gruffydd:** Rwyf fi hefyd yn mynd i ofyn fy nghwestiwn yn Gymraeg. Rydym yn symud tuag at fodel mwy masnachol a chystadleuol, ac rydych wedi sôn eisoes am yr anghydbwysedd sy'n bodoli ar draws Prydain o ran argaeledd dŵr a'r ffaith efallai y bydd angen trosglwyddo dŵr o ranbarth i ranbarth. Wrth gwrs, yng Nghymru, rydym yn ffodus bod gennym fwy o ddŵr, efallai, na rhai ardaloedd sydd wedi

**Llyr Huws Gruffydd:** I, too, will ask my question in Welsh. We are moving towards a more commercial and competitive model, and you have already mentioned the imbalance that there is across Britain in terms of the availability of water and the fact that there may be a need to transfer water from one region to another. Of course, in Wales, we are lucky that we have more water, perhaps, than some areas that have suffered from

bod yn dioddef sychdwr a phrinder dŵr yn ddiweddar, ond hefyd rydym ni yng Nghymru'n awyddus i wireddu potensial economaidd yr adnoddau naturiol sydd gennym. Felly, wrth symud i'r model hwn, a ydych chi'n gweld bod mwy o gyfle i ni yng Nghymru i weld mwy o fudd economaidd, oherwydd bod gennym fwy o ddŵr nag sydd gan ardaloedd eraill?

drought and water shortages recently, but we are also eager to achieve the economic potential of the natural resources that we have. So, as we move towards this model, do you anticipate that there will be more opportunities for us in Wales to see more economic benefits, because we have more water than other areas?

[73] **Professor Cave:** Yes, in principle. It obviously depends how climate change goes, but if we get to the stage of having camels by the side of the Thames, as I sometimes say, and assuming that you do not have camels in Cardiff simultaneously, of course, then there would be enhanced opportunities for that. So, for your water company, or whomever it is that would own the natural resources—I have no idea how the natural resources plans are configured as far as ownership and control are concerned—there would be an opportunity to do that. The question of trying to work out relatively inexpensive means of transporting the stuff would then become apposite. However, I warn you that it is darned heavy and taking it over long distances is not particularly easy.

[74] **Llyr Huws Gruffydd:** Diolch am hynny. Hoffwn ofyn hefyd a yw'n deg i ddisgwyl, felly, y bydd y newid i'r drefn sy'n cael ei argymhell yn cynyddu ymwybyddiaeth gyhoeddus o argaeledd dŵr, oherwydd byddwn yn gweld y galw ar y ddarpariaeth yn cael ei amlygu yn gryfach.

**Llyr Huws Gruffydd:** Thank you for that. I also wanted to ask whether it is fair to expect, therefore, that the change to the regime that is being recommended will increase public awareness of the availability of water, because we will see the demand on provision being highlighted more prominently.

[75] **Professor Cave:** It might have that effect, but I suspect that the best way to do that is to have more metering. Once you have meters, they have an impact. The thought of you getting to the stage of having smart meters is probably slightly farfetched, given your annual rainfall. It is extraordinary the way in which even a period of water shortage has a hugely educational effect upon on the citizenry. In Australia, for example—although, admittedly, they had a drought that lasted seven years, which I hope that we will not have to deal with—it got to the stage where there were examples of what was called 'water rage'. People would see their neighbours with a beautiful garden and suspected that there was dirty work at the crossroads and that they were creeping out in the middle of the night with a watering can or something. In one case, the water rage led to a murder—like road rage, it went that far. It is possible that we might get to that stage. Metering can make people aware of the fact that if they fill their swimming pool once a week instead of once a fortnight, it would cost them £300. Admittedly, not many of our fellow citizens would be subject to that kind of pressure. However, that sort of thing would also be helpful.

[76] **Lord Elis-Thomas:** Thank you very much. We have spent an hour and 15 minutes on water, which is not unusual in a Welsh committee room. *[Laughter.]* We are very grateful to you for that overview. I certainly take heed of your warning about the complexity of the issues that we have to face. We are particularly interested in the difference of emphasis between the Welsh Government and the UK Government in these matters. Matters like these always entertain me. Diolch yn fawr. Thank you.

[77] **Professor Cave:** Thank you.

*Daeth y cyfarfod i ben am 12.07 p.m.  
The meeting ended at 12.07 p.m.*