



HOUSE OF LORDS

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OPEN ACCESS

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Witnesses: Professor Rick Rylance, Professor Douglas Kell and David Sweeney

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Members present

Lord Krebs (Chair)
Lord Broers
Lord Dixon-Smith
Baroness Hilton of Eggardon
Lord Rees of Ludlow
Earl of Selborne
Baroness Sharp of Guildford
Lord Willis of Knaresborough
Lord Winston

Examination of Witnesses

Professor Rick Rylance, Chair of Research Councils UK (RCUK), **Professor Douglas Kell**, Information Champion, RCUK, and **David Sweeney**, Director (Research, Innovation and Skills), Higher Education Funding Council for England (HEFCE).

Q52 The Chairman: I would like to welcome our three witnesses for this third session today of our short inquiry into open access publishing. I just explain to members of the audience that the declared interests of Members of the Select Committee are on the sheet that should be on the chair where you are sitting—it was on the chair—and to remind you that the session is being webcast both in sound and in visual.

In a moment, I am going to invite the three witnesses to introduce themselves for the record, but I just want to make it clear that in this short inquiry we are not raising questions about the whole principle of open access publishing. We accept that it is happening and will move forward. We are concerned very specifically with the way in which the recommendations of Finch are being implemented by the Research Councils, HEFCE and the academic community, and as you will be aware, we have taken evidence this morning from universities and from the publishers, and through their evidence, both written and oral, we have a number of probing questions to put to you, which we hope you will be able to shed some light on for us.

Having set the stage, may I invite you, starting with Professor Rylance, to introduce yourselves for the record?

Professor Rylance: Yes. I am Professor Rick Rylance, and I am the Chief Executive of the HRC and Chair of the RCUK Executive.

Professor Kell: I am Douglas Kell. I am the CEO of the Biotechnology and Biological Sciences Research Council. I am also the so-called RCUK Information Champion, and I am also, for 0.2% of my time, still a practising academic, and I have published in the areas of digital libraries, semantic enrichment of text and text filing and so forth, so I have something of an interest to declare, as it were.

David Sweeney: I am David Sweeney. I am the Director for Research, Innovation and Skills at HEFCE Funding Council.

Q53 The Chairman: Thank you very much. We would like to start off looking at the issue of embargoes, and there are a number of strands to this that we would welcome clarification on. The first point is really to get absolute clarity from you on your policy, or proposed policy, on the embargo periods for green open access. As you know, the position that the Science Minister has presented in his evidence to us is that BIS accepts the decision tree that was presented by the Publishers Association for cases where open access funding is or is not available where the journal does or does not have an open access policy. We would like clarity from you, because there is an impression that you—RCUK, that is—have not proposed to implement the same policy that BIS has accepted, so we would like to clarify that. I think, as part of that, we would like clarity on whether you recognise that it may be that the embargo period should be different for different academic disciplines, and again, there has been particular emphasis from some of the witnesses that in the humanities and social sciences, one might expect longer embargo periods than in STEM subjects. Perhaps we could start off with your clarification on those issues.

Professor Rylance: Shall I begin? The policy is that we will have six- and 12-month embargo periods after five years, so there will be a five-year implementation phase, but the eventual policy is to bring down embargo periods to the lower level. During that five-year implementation phase, we will be significantly more relaxed about our requirements on embargoes, and this is what we will publish in our revised guidance at the end of February.

The one caveat to this is a caveat around the MRC, which for some years has had a six-month embargo period, and it seems wrong to us to change that, so that will continue during that period.

Q54 The Chairman: That is very helpful. Can I press you a little bit further? When you say, “We will be more relaxed”, can you describe what that means? Can you put numbers on it and timescales?

Professor Rylance: We will move to a 12- or 24-month embargo period, which is entirely consistent with Government policy.

The Chairman: That is where you start on 1 April. You will have 12 and 24, as in the decision tree used by the Publishers Association.

Professor Rylance: Indeed, yes.

The Chairman: But at the end of five years, everything will have collapsed into the six and 12.

Professor Rylance: What will happen during those five years is we will continually monitor the policy, and particularly, we will be having this review at the back end of 2014, in which we will look at the accumulating evidence over what will then be a 15-month period. That may suggest that we should extend or accelerate that period, but it would be wrong to try to guess when that will be.

The Chairman: Yes, so although you say the aim is to get to six and 12 months after five years, that is not set in stone. If it is apparent to you—and I will ask you what kind of

evidence might make it apparent—that there is a need for a longer transition period, or possibly even an equilibrium that is longer than six/12, you would consider that as a possibility?

Professor Rylance: Yes. We would have no interest in maintaining a policy that was insecurely founded, so if the evidence came forward to suggest it was then we would want to amend it accordingly, but that could come forward or it could go back, of course.

The Chairman: What kind of evidence would that be?

Professor Rylance: I think at the moment what we have is a situation in which there is a great deal of assertion about, for example, the effects of embargo periods, and, to anticipate a little your second question about disciplinary differences, it is likely that the impacts in the biomedical sciences will be different from those in, for example, my disciplinary domains, which are in English, history and so on. I think we would have to take account of what evidence there is accumulating across that spectrum, and that then would inform the way we develop policy. This would be damage to business models; that is the kind of thing we would be looking at—what the relationship is to subscription costs and so on and so forth.

The Chairman: Yes. Professor Kell?

Professor Kell: The actual implementation: what fraction of papers being published are gold and green, and on what basis, and what is happening in the rest of the world? It is a very non-static landscape, and although our policies are of recent origin, the move towards open access is not. It is well along the path now, and we describe this as a journey, not a fixed point.

Q55 Lord Dixon-Smith: Can we just hear a little bit about what is being done elsewhere? We say this is not a national thing, so you must have some knowledge of what is being proposed in other countries.

Professor Kell: In our evidence we set down some of the international context. A great number of the European countries are already implementing this. The Australian Research Council is already doing this. The ERC is going to be debating it in its meeting coming up, and the Global Research Council has it as its main agenda item in May in the USA, so there is a very great deal of interest and implementation going on, and much of it following what is coming in the UK. We have a large table, which we intend to submit as post-evidence, because we have looked at all of the implementations in Europe, for instance, and almost every country has a very clear implementation. While we are driving this thing, we are very much not alone.

The Chairman: Sorry, did you say you would provide us with this table?

Professor Kell: We will be happy to do so, and we thought it would be helpful.

The Chairman: Thank you, yes.

Lord Willis of Knaresborough: Just arising from that, that is news to me, what you have just said this morning. When you talk about implementation, are you talking about implementation to gold or to green?

Professor Kell: Our policy is to both, which is—

Lord Willis of Knaresborough: No, not yours. You focus on Australia.

Professor Kell: Yes. The evidence we have gathered speaks to both.

Lord Willis of Knaresborough: It is all moving to gold?

Professor Kell: It is quite a long and complicated table because there are a lot of different countries, but we have analysed from both points of view.

Q56 Earl of Selborne: In the written evidence we have been given, it is clear that there are a number of countries that see green continuing without any need to migrate the green over to gold eventually. I think I am right in saying—perhaps you could confirm this—that

That leads me to ask, because in your written evidence to us you said that, “Despite the RCUK’s, and the Government’s, preference for the gold route to open access, the green route should also be seen as a real option for open access publishing”. I really want to ask you, given that you have expressed a preference for gold over green, do you see the green eventually withering away because you would be able to migrate totally to the gold?

Professor Kell: I think, and Finch said the same, the feeling is that gold is the more sustainable route. The market can and will decide, but the feeling from Finch and ourselves and others is that gold is the more sustainable route, but, where green is appropriate, we will admit it.

Earl of Selborne Would you accept that while this is certainly true for a number of disciplines—and the Wellcome Trust has given us, to my mind, quite convincing evidence in the case of the medical sciences—this is certainly the preferred route? Of course, for a number of disciplines, where, for example, mining of text or other more sophisticated use of the data is not really a necessity or a requirement, the green route does have something in its favour. First of all, it is cheaper. Secondly, it is available without too much complication and the repositories are already there. I have mentioned the NIH, but you quote Australia. Australia has expressed a preference as from 1 January to go to what looks like, to me, to be identical to the green route: repositories and a possibility of embargoes. Given that this will be the bulk of publications in the foreseeable future around the world, why would you say that the gold is going to be more sustainable than the green?

David Sweeney: The work from John Houghton in Australia, who I think is the premier economist in this area, suggests that that is so. He does raise concerns about the transition

period and the additional costs that there may be from pursuing green and gold, but you started off by saying green is cheaper. That is not what the literature says.

I think that we are engaged in speculation. As Professor Kell said, publishers will respond in different ways and funders will respond in different ways over this transition period, and universities will. It may well be that we come in two or three years' time to a different view about the economics. I think what counts now is encouraging the widest possible dissemination of research material.

Earl of Selborne We will be coming to cost-benefit, I know, later, but I am amazed to hear that there could be any question that putting, at the author's instigation, a paper into a repository and that is the end of it, subject to embargoes, could be more expensive than paying an APC up front. I just do not understand that.

David Sweeney: I am very happy to share John Houghton's published, peer-reviewed work with you.

Earl of Selborne I think it would be very helpful to have that.

Q57 The Chairman: Yes, we would like to see that evidence, please. Could I also just pick up on this point we have raised, that both Professor Kell and David Sweeney have said, in a way, we have to see how the story unfolds? Some of the evidence we have had from learned societies and the published journals and other publishers is that the mere uncertainty in itself will be a threat to their future business model, just not knowing where they are heading, whether they are meant to be driving down a road that leads to gold, or whether the end game is green or a mixed economy. As a by-product of "We will wait and see, let the market decide", you may cause certain journals to go extinct. Is that something you would recognise as a possibility, and, if so, would you be comfortable with it?

David Sweeney: This is a worldwide movement where all sorts of things are happening, and there is certainly a lack of stability. I think publishers have proved themselves very astute

businesspeople in providing different publishing models. We have seen them appear by the week, at the moment. They are, of course, in competition with each other, as well as in competition for academic material. I think, in the worldwide framework, we should not be unduly concerned about establishing a further push towards open access publishing.

Professor Rylance: I do not know what the alternative to waiting would be, because we do not want to be in the position where we are predicting what in five or 10 years' time is going to be the situation. We have to—and I think everybody would agree with this—leave a range of options open, and we will discover the best ways through that. Whether or not gold becomes the economically sustainable way of operating for both publishers and funders will be decided, but there are other issues around gold as well and questions around green in terms of interoperability of repositories, and also in terms of long-term curation of these things. I think, in both systems, we are going to think about those things as well.

The Chairman: But in light of what you have just said, was it wise, then, to express such a clear preference for gold as the end point? On the one hand, you are saying you want to head down the journey to gold. On the other hand, you are saying, “We need to wait and see how the story unfolds”. Would it not have been better at this stage to say, “We do not know. It could be a mixed economy, it could be mainly green with a bit of gold, it could be mainly gold with a bit of green, but we are dipping our toe in the water to see what happens”, rather than, on the one hand, sending a clear directional signal, and on the other hand saying, “We have to wait and see”?

Professor Kell: Given that green with no embargo period is not sustainable as you move towards smaller embargo periods, because one of the benefits and purposes is to make stuff available as soon as possible, that in part is why Finch recognised the desirability of gold, because otherwise the thing would not be sustainable when you are trying to get the stuff

out the door as quickly as possible, to buy better science, because then the computers can do all the text mining and so forth.

Earl of Selborne Again, I am puzzled, because in the written evidence we were given there are a number of people who say that green without an embargo is a perfectly sustainable option, and indeed, there are many examples of it.

Professor Kell: Gold without an embargo I think would be fine. If you look at the PLOS submission, for instance, which is gold without an embargo, that you may find is perfectly sustainable. Green without an embargo does not bring any income into any publisher or learned society without an article processing charge.

Q58 Lord Rees of Ludlow: We have discussed that some existing journals might be under threat in this new system, because another thing that is happening already is the establishment of open access journals, likely to be rather low quality, by commercial publishers. It is happening in a big way, and they will undercut the major journals in their charge. Is this not surely a rather worrying development, which is going to be accelerated in so far as you push hard for gold access?

Professor Rylance: My observation about this is that we have a rather unpredictable future. You have a multi-agency problem with all sorts of interests, some of which are in agreeance and some of which are in conflict. You have what is purported to be evidence but is assertions of opinion, and an atmosphere in which disaster scenarios are being traded on a regular basis. It seems to me just prudent at the moment to wait to see how that dust settles and how the hard evidence emerges. When you come to think about the various commercial interests there are in play in this, there are established publishers, there are the learned societies, and they are in some relationship of different sorts, and also you have an emerging group of people, who perhaps you were referring to at the end, who are, in a lively-minded way, spotting opportunities, and who could turn out to be cowboys or they

could turn out to be reputable people. We cannot predict at this stage what those things are going to be, so it seems to me we need a lot harder evidence to make those sorts of announcements.

David Sweeney: I do think underpinning your question was that all open access journals are of low quality, and the evidence is just not that. There are some open access journals that, by the metrics that were used, demonstrate a considerable quality. Equally, I accept that not all of them do. Surely we welcome publishers offering different avenues, and we will use the established metrics and the wisdom of our academics in submitting their material to determine which ones will flourish and which ones will not.

Q59 The Chairman: That is all very well, if it were up to the academics to choose, but if resources are limited and universities or institutes are putting pressure on academics to publish in journals that are less costly in terms of the APC, surely that could undermine the quality of peer review. We were told this morning that the APC for *PLOS ONE* is about half that for *PLOS Medical Science* because the latter journal has a more rigorous peer review system, and surely, under the limit of resource APC model, people will be pushed towards the cheaper journal.

David Sweeney: I would like to think that British research added lustre to the journals, not just the journals adding lustre to British research. I would like to think that we were looking at the quality of ideas, the new knowledge that is developed in these publications, not just at some mark of quality because it happens to be published in a journal. We have long said in research assessment that where the journal is published is not the factor in assessing quality. It is the peer review, in our case from our panels.

In Australia, they tried a system that was based on journal impact factors, based on an assessment of the quality of research in the way that you describe, and it was abandoned after a universal criticism, so—

The Chairman: But I am talking about peer review. It is following Lord Rees's point, that the quality of a journal ultimately depends on its scrutiny of the submitted material, and if there is a race to the bottom in peer review, that will surely have an adverse effect.

David Sweeney: I think the quality of the journal depends also on the quality of the material that is submitted to it, not just on the quality of peer review.

Professor Rylance: I cannot see where it would be in the interests of journals to degrade the quality of their work by publishing inferior stuff, and I cannot see why it is in the interests of a university to not allow its own academics—indeed, it ought to positively enable those—to publish in the best places.

I also think we have a very volatile situation in which, in new fields of developments and new aspects of fields of development, there are reputations to be made. It is not a hard and fast binary between those respectable journals of yore and upstart and rather immature open access. It is a much more complicated picture.

Professor Kell: I think there is plenty of evidence for you. There are these so-called predatory publishers on the cowboy end of the spectrum, who just see it as a quick buck and are likely to accept anything. There is a website that tells you which they are. There is an established marketing working this kind of thing out, and sensible academics are not going to send their stuff to such places, so I think we have the evidence already.

Q60 Baroness Sharp of Guildford: Can I pick up the issue that we have already touched on, which is the costs of publishing? It has become very clear, I think, both in the evidence that we have received and in the oral evidence that we have received, that certainly during the transition period there will be a dual economy. On the one hand, there is the pressure to publish through the gold open access route, and particularly I think in the sciences we will be going in that direction. Equally, because we only publish 6% of the world's publications and other countries are not necessarily going in this direction, many of

the journals will be offering a hybrid. There will be some open access articles and some that are not, and they will go on charging subscriptions, and quite clearly our university libraries are going to have to go on paying those subscriptions.

At the same time, we are putting money into the pot, or you are putting money into the pot, in order to enable the APCs to be met from university funds, or partly from university funds. Therefore, what we would like to know is: did you do any sort of cost-benefit analysis on this to start with to have a look at how long that transition period was going to be and what sort of costs it was going to impose? In particular, since the funds that you are putting into universities are funds that you are finding and, therefore, the opportunity costs are project funding otherwise that you might have, what impact do you feel this might have upon research as a whole?

Professor Rylance: Shall I begin and then go to you? First of all, I do think the most unfortunate outcome one can imagine is where researchers get squeezed from both sides. They have to pay to publish and pay to receive. That is an unfortunate thing, because that will clearly push up costs. It is, therefore, it seems to me, an obligation on all the parties within this, including university libraries and institutions, to put pressure on those costs, to drive them down at the APC level and also the subscription level. In a recent conversation with the Russell Group, which included the Chair of the current Research Libraries group, we undertook as part of the 2014 review to try to look at that data as well as the data about our particular charges, so we need a holistic picture from it. We are very mindful of that problem, and I think it would be deeply regrettable if this produced that sort of outcome in the end.

The Chairman: It is one thing to be mindful of it. It is another thing as to whether it is actually going to happen. It does seem it is likely to happen.

Professor Rylance: It is only 15 months away, this, and we need to try to gather evidence in those 15 months to see whether it is the case or it is not the case. It is, we will all be aware, very difficult to get hard information about subscription costs from publishers. It is extremely difficult to get that, so we have to find a way of trying to share that data.

Professor Kell: The evidence on the cost of doing it seems to be that it is about 1% to 1.5% of the costs of the research that is itself funded by—speaking for the STEM subjects.

Baroness Sharp of Guildford: That is the Wellcome figures that you have.

Professor Kell: That is the Wellcome figure, but it is consistent with other data that can be seen, and the average of that of course is based on the volume of publication and the average APC. The numbers that came out in both Finch and the Wellcome evidence that they analysed with the commission's work at Edinburgh came out within £14 of each other, around £1,700. These are past numbers; there is evidence that these are going down. SAGE has just offered £99, for instance, in social sciences. PeerJ has something similar.

One can model on the basis of that kind of number. It is seen, I think, universally, that part of the costs of doing research is disseminating it, and that is, therefore, a legitimate cost that we expect to bear as funders of research. Mitigating the cost of transition: there are already some examples of good practice, such as the Royal Society of Chemistry, who, when you pay a gold APC to one of their journals, mitigate that in terms of some of their subscriptions to essentially ease the transition, and we hope that that kind of behaviour, which we wish to encourage, will go on more widely.

The last thing is that the long-term cost-benefit. There are examples, such as the Human Genome Project, which I know is data as much as publication, in which the return on investment in that is seen as \$141, according to one analysis, per dollar invested in it. We believe that the cost-benefit analysis to the knock-on in the wider economy as a whole will

be very great, but that is not our purview and we are hoping that BIS will initiate some analyses of that. Again, looking to the future is a little hard to predict.

David Sweeney: University research budgets over the last two years across the sector have increased by 8%, so there is some room for manoeuvre, and I do not want to downplay the budget pressures there are on universities to manage within that increased amount of funding, but we have, as you say, a dual economy. We have a cost increase of 1% to 1.5%. There is some money in university research budgets, and we want to monitor this as we go year by year. I think it is difficult to assess in monetary terms the benefit from open access, but it is clearly, as you said at the start, a worldwide objective to go that way, and I think the initiative we are making in this country sounds manageable in the context of the figures, not only that we have but that Wellcome and others have.

Q61 Baroness Sharp of Guildford: Yes. We were, for example, this morning, talking about the science fee remaining at a subscription-only journal, for the moment. In so far as you want to publish in a top-ranking journal in the scientific field, this is the one that one would want to publish in. Therefore, it does depend very much on how far the mixed route goes, how long you have to go on paying subscriptions and whether those subscriptions are substantially reduced as a result of this, and the way in which other countries go, which are all the uncertainties.

I wonder whether you could give us some indication of what you see as being the major benefits arising from this, that go on the other side of the costs.

David Sweeney: As we said, we are very keen that the fruits of British research are unlocked for other use of British business and industry, indeed for their use more widely.

Baroness Sharp of Guildford: Do you see industry benefiting a great deal from having—

Professor Rylance: Absolutely.

Baroness Sharp of Guildford: —given that a lot of the articles are already put in repositories of one sort of another?

David Sweeney: If they are put in repositories, then they are being published to open access already, but businesses tell us that they want it and it does not seem an unreasonable thing to ask. I think there are many taxpayers who want to read scholarly publications and cannot do so because they have no institutional affiliation. It seems to me entirely reasonable that they—

The Chairman: This is not strictly British business, so it could be Chinese or Brazilian.

David Sweeney: That is true.

The Chairman: Absolutely, so it is a way of the UK possibly subsidising economic growth in other countries. Is that how you would see the benefit?

David Sweeney: I do not think we can adopt a protectionist attitude to British research. We are very practised at using intellectual property techniques to develop benefit for universities and for Britain from research, but research is a global industry. We work collaboratively. You have probably worked collaboratively with colleagues in other countries.

Professor Kell: If a journal goes open access, it is the journal that goes open access; it is not the country that goes open access. As we effect culture change, we will get the benefits of having access to the literature, and that will benefit British industry big time, but where a research council has it, it will mainly benefit science enormously. The number of peer-reviewed papers you know being published in biomedicine alone is two per minute. In the whole peer-reviewed literature, it is five per minute. No one can read them. Only computers can read them. If we can get that to that state, we buy better science. There is not any doubt about it. That is the major reason why I am so keen on the open access movement, personally, from a scientific point of view.

Professor Rylance: On the international competitor issue, it seems to me, under current arrangements, a predatory commercial interest in China can gain access to this readily by simply buying a subscription. It is going to be a little bit easier and a little bit cheaper, but the hard work is still to come, as they gain access to this.

The Chairman: Then it seems to undermine your previous argument, that this will greatly increase the innovation in industry.

Q62 Earl of Selborne I wanted to come back, if I might, to the pros and cons of green open access compared to gold, and I think we recognise that, for the life sciences, gold is highly desirable and has many advantages, not least to allow text and data mining in an easier form. But Professor Carroll told me that green open access implies always there is going to be an embargo. I must just quote to you written evidence we have had from the Scholarly Publishing and Academic Resource Coalition, SPARC. It says, "It is a factual error that the Finch report implies that green open access is always embargoed. This is incorrect. 60% of journals allow immediate opening up of the peer-reviewed version of the article, and a further 27% permit the opening up of the submitted version. 16% even allow the published version, the version of record, to be placed in a repository immediately upon publication". I think it is very important we do understand what the costs are of green versus gold, and I think we have accepted that for life sciences there will be some very obvious advantages and a cost of 1.5% or whatever one can calculate might well be returned for the added benefits. Equally, we have had a lot of evidence, as you could expect, particularly from humanities and social sciences, which says that, quite frankly, text and data mining is not so much an issue with them. They need read alone. I still remain to be convinced by you that putting a paper, whether the final print or whatever version, into a repository is going to cost as much as the APC. Certainly, the evidence that we have had time and time again suggests it is going to be a cheaper version. Even maintaining the repository, which does need maintaining—the Finch

report suggested that there should be a bit of top-up funds for that. I quite accept that, but I simply do not understand how you maintain that this green route is going to cost 1.5%. That is my comment, anyway.

Professor Kell: Sorry, I recognise that I forgot to add one important rider. I was describing the circumstances in which we were not counting the payments of subscriptions. That is why I said that if there were no subscriptions and everything is green with no embargo, then of course it is hard to—

Earl of Selborne That is a helpful—

Professor Kell: My apologies, and thank you for the opportunity to clarify.

On the question of text mining in non-STEM subjects, these subjects benefit enormously from text mining, and already do, as more and more arts and humanities work goes digital. There will be huge opportunities coming.

David Sweeney: I think these things are difficult to get to the bottom of. We have the publishers saying that without lengthy embargo periods, they do not have a business model; you are just quoting evidence to us that says more or less the opposite. I think it is not for people like us to try to interfere in the different offerings that publishers make. What matters to us is that scholarly information is as widely disseminated as possible, and we look forward to publishers trying different options.

Earl of Selborne With respect, it is certainly not for us to interfere, but it is for us, I think, to challenge the assumptions on which this policy has been determined. We would expect you to have been able to show what the cost of the two systems is likely to be, what the benefits or the disbenefits are likely to be, bearing in mind that we are 6% of an international market and that, whether we like it or not, subscription journals in many disciplines, however popular the gold option might be for OA, are likely to continue because that is the way other people are going to continue to publish. These are the factors we need to

understand, and if we have gone for an option that appears to be heroically ambitious because these other factors have not been taken into account, then it is surely the job of Parliament at least to ask you to justify your decision.

Professor Kell: It absolutely is, and as we mentioned several times, of course, it is somewhat uncertain, but there are some boundary conditions that we know, such as the 1% to 1.5% of turnover cost of the actual costs of funding the publications through gold APCs, so that is well known. We recognise that we will be able to gather some evidence quite quickly by having this review at the end of quarter 4 of 2014. I think that is a good position to be in to seek to get the evidence, as you would hope we would do.

Q63 Lord Rees of Ludlow: A comment on Lord Selborne. Physics is certainly a subject area where there is, in effect, green access with no embargo period, so there are certainly a number of important areas where this would make no difference at all to availability.

I would like to really go back to the cost-benefit analysis because we have talked about 1.5%, but there is also, is there not, going to be a sort of cost in terms of the petty accounting and administration? This is going to happen in every university, in every department, in deciding how to allocate the funds for gold access. Certainly, if HEFCE is going to require open access in the REF, someone in HEFCE has to police all the world's journals to see if they are enforcing the embargo they are saying they are, which is consistent. Is it not going to be a huge and rather tiresome effort on the part of both universities and bodies like yours to ensure that this is implemented?

David Sweeney: I do not think so. There is a site, SHERPA-RoMEO, that polices the conditions that journals place around the publishing. Now it does not seem to be an unduly taxing item for us to support. We do have several universities that already have article processing charge funds because, after all, we are in a dual environment, and this has not been at the top of university concerns about administrative costs at the moment. I do not

want to downplay that there will be effort involved, but already universities run repositories, they manage processing charges, and we will talk at length with them about the efficient ways to do that, providing tools, if we can, to help them.

The Chairman: Just to pick up on the point of universities that already have APC funds, we took evidence this morning from Imperial College, which has such a fund, but it was explained to us that at the moment there is no competition among academics for access to the fund because there is more than enough money to go round, given the limited number of papers that are published in gold open access journals, but as the policy of going for gold is implemented, there will be pressure and there will be a bureaucracy to make the hard decisions about who gets the money, and that was acknowledged, I think, by Imperial College this morning. It is, if I may say so, a bit complacent to assume that because some small funds are not imposing bureaucratic burdens on universities right now, they will not be in the future.

David Sweeney: It may be, but I think we have to wait and see what evidence there is. We do not know how much competition there will be for APC funds. We do not know, indeed, whether there will be a rather larger take-up of green and that will ease the position.

The Chairman: There must have been some modelling. There is enough money to fund 45% of papers that people want to publish, so you must have had some thoughts about what the administrative burdens would be on universities.

Professor Kell: Yes, that exactly was the modelling, so we have a good estimate of the number of papers that are likely to be published. We can make an estimate—that is the 45%—of the compliance at a certain time, and we can make an estimate of the average processing charge, and those three numbers multiply together to give you the actual cost, so we have a pretty decent estimate, we believe. Clearly, there are elasticities in that, but the estimates are self-consistent when you do them from a number of sources in a number of

ways. I do not think we are being complacent. I think we are making a decent fist of having a good estimation of what is likely to be the case.

Baroness Sharp of Guildford: Is there a paper that gives us some detail of what your modelling was here? Could you let us have it?

Professor Rylance: Yes. Can I make an observation? Clearly, the publications we are funding come from the work we are funding, not the totality of productions from a university, which is deriving its income for research through different sources, including through the QR funding stream and so on. It is best to be clear that what we are talking about are the bits we fund, which are based on algorithms to do with the amount of work that is put in over a historical period, and then the totality of it is a different kind of question because there are other sorts of variables in it.

Q64 The Chairman: Can I just ask, before I turn to Lord Willis, one question about the international aspect? What will be your policy on academics, who, using your funds, publish in international journals that are not compliant with your policy? Will they essentially be barred from publishing in those journals, even if they were high-profile, highly desirable journals to publish in?

Professor Rylance: The trend evidence we have is that the top-line journals are going to be OA compliant. It is possible to imagine exactly the scenario you sketch there, and if that is a considerable problem, given that what we want is the excellent and best research—if that is a disincentive to producing that—we are going to have to look at that very carefully in 2014. The evidence we have at the moment is that that is not going to be a great obstacle, despite people being anxious about it.

Lord Broers: We hear through you, Chairman, that *Science*, for example, is not going to be an open access journal.

Professor Rylance: That is not my understanding. I may be wrong.

Professor Kell: *Science* is compliant.

Lord Broers: It is compliant with what? With the embargo?

Professor Kell: It is compliant with our policy, which is what we are looking for journals to be. What *Science* may or may not do in the future is to be determined, and a journal like *Science* people like me buy more for the front pages than for the papers themselves they get through their institutions. No, I do not—

Professor Rylance: I think, clearly, if you are getting a view that *Science* is non-compliant and our understanding is that it is compliant, we need outside the room to try to—

The Chairman: Perhaps you could clarify that for us in a follow-up note, because we did ask the university witness panel to clarify for us which journals they would name as major non-compliant journals and *Science* was mentioned as one of them. Perhaps you could help with that.

Professor Kell: We will get chapter and verse.

Baroness Sharp of Guildford: I take it that—

The Chairman: Sorry, I would like to turn to Lord Willis.

Q65 Lord Willis of Knaresborough: Can I say I welcome the fact that you have come along this afternoon in a bullish mood to defend your policy? I think that that gives the Committee a real opportunity to question that, rather than just simply deal in platitudes. I would very much like, in addition to the funding model, to have some background, if you could send it to the Committee, in terms of this model of how it is good for UK business. I can see that if there is gold access across the globe—let us say that is the ultimate goal, and I think this is a great, noble gesture at the moment—then we get access to 94% of all the other science, and our business gets that. I can see that. I cannot see the trade-off at the moment, but perhaps that is something. You must have done some work on that and there

must be some figures somewhere that indicate there is going to be some real advantage. Why on earth would you want to lead this on a global scale if you could not justify that?

David Sweeney: I do not understand the, “We are leading it on a global scale”. All over the world—and indeed the Research Councils will provide you with our table—people are adopting open access policies. You said at the start of the meeting that you were taking it for granted that open access was a good thing. The costs we have alluded to, and—

Lord Willis of Knaresborough: Can I just stop you there before you get excited? We do that, but the purpose of the Committee is really to examine the hypothesis on which you have developed your policy. I will move on briefly from that because time is limited.

Taking the community with you, the broader community, both the academic and the publishing community, is absolutely fundamental. Would you agree with that? Is that a good starting point to this conversation?

David Sweeney: Yes.

Professor Rylance: Yes.

Professor Kell: Yes.

Q 66 Lord Willis of Knaresborough: Finch reported on 18 June 2012. Twenty-eight days later, you produced a policy. Did that give you adequate time to consult this community on which the success of the policy depends?

Professor Rylance: What we produced was a draft policy, so it was in itself a consultative document. It was a Green Paper, as it were, that people could then respond to, and they did. On the very day that Finch published, I was talking to an arts and humanities subject association meeting about the question of open access, and that has happened repeatedly all the way through these periods. These sorts of meetings, visits to HEIs, convened events by the British Academy and others, those things have been going on all this time.

Lord Willis of Knaresborough: So, there was no attempt then to have any consultation during that period, that month? When the Publishers Association said to us, “RCUK has acted unilaterally and in isolation”, they are wrong or they are right?

Professor Rylance: I do not think we did act in isolation or unilaterally. We had been quite open about—

Lord Willis of Knaresborough: So, when the British Academy, the British Sociological Association, the Economic History Society, the Institute of Physics, SAGE, SOB, SPARC, all saying the same thing, they are wrong?

Professor Rylance: But I do not think they give a true portrait of the extent to which we have engaged with the subject—

Lord Willis of Knaresborough: You have not engaged at all. That is the point.

Professor Rylance: In which case I do say they are wrong, then, because all of us have repeatedly met publishers, academics and so on, in public and in small group meetings, to discuss these things. On Monday we have a meeting, 4 February, about the arts and humanities convening directly with the SRC and AHRC. These things are going on repeatedly.

Lord Winston: I am probably right, but I am not quite clear about this. Are you saying that your deliberations were completed at the time the Minister made his public announcement? It was the same week that Mark Walport came forward and said that this was going to happen. Do you remember? Can you recall when that was?

Professor Rylance: I cannot remember the exact dates. Can you? What we did was we published a draft policy, and we have had subsequent meetings with various interested parties since then. We have made a commitment to publish the final thing of that at the end of February, so that has allowed eight months, give or take, in which we have repeatedly met various sorts of interested parties and responded to others, face to face at public meetings

and also in terms of correspondence and so on. I do think it is a good deal of consultation, and if the impression you are deriving is—and if they have derived an impression—of our failure to engage with them in conversations about that thing, I would have to say they are wrong.

Q66 Lord Willis of Knaresborough: All of those organisations, plus another dozen, said exactly that, so there is clearly a misunderstanding. Can I move on from that? You are now consulting, having produced your draft policy. On 1 April, it is going to be implemented and sent forward. Do you feel that that is a sufficient timeline in order for universities in particular and other research groups to get up to speed in terms of implementing this policy? This morning, we had Oxford here and we had Imperial—it is on public record—who do not have a policy yet because they are struggling to look at the various components. We want to get this right, do we not?

Professor Rylance: We do indeed, and that is partly why we have this five-year implementation phase, in which people can discover the best way of operating on both sides. They can discover the best way of operating this new system. Our feeling was that if we delayed any more, you lose the momentum that came out of Finch. We have talked a little around the international situation. There is some degree of advantage to be gained from being a first mover. There are also risks, of course, involved in that, and that is what we have to try to calculate on a regular basis. 1 April is a tough ask, but it is not unmanageable, I think. Of course, it is worth remembering that RCUK has had a policy on open access for some years now, which has not been comprehensively implemented.

Lord Willis of Knaresborough: There is no question that you are missing that 1 April date.

Professor Rylance: No.

Professor Kell: No. The implementation, again, is a recognition that compliance will not be absolute instantly, and in the Wellcome Trust evidence you will note that they have had their policy, which they have been quite tough about, for seven years, and they are still only 60% compliant, so we recognise it is a journey.

Lord Winston: Just for clarity, just checking on the web, it looks as if the announcement was made about 1 May.

David Sweeney: In terms of the Research Excellence Framework, where we have the luxury of considerable time until the next exercise, we have been taking time to talk before we publish a draft. However, we have had repeated demands to be clear about what we are going to do. I think it is very difficult to get the balance between consulting before you publish a draft and publishing a draft and then consulting. We have seen the Research Councils adopt one approach. We have adopted the other. We have both received criticism, but we are determined that together we have the foundation of a policy that is based on open access, and as far as we are concerned, we take that forward with the Research Excellence Framework.

Lord Broers: And you are both working closely together.

David Sweeney: Oh yes.

Lord Broers: I am out of date, I am afraid, with the REF in its latest implementation, but as an engineer I had sort of heard that things had been adjusted. I am wondering, what do you do with patents?

David Sweeney: Patents bear no essential relation to this. We are still talking patents as opposed to published outputs. We have had ways of handling those for years, and those will continue.

Lord Broers: Yes, but they are counted in arrears.

David Sweeney: Yes, that is true, but I think that has no bearing on the open access distinction.

Lord Broers: That has no bearing—

David Sweeney: We have not changed in that sense.

Lord Broers: Getting back to the question we had before, you have joined with RCUK in surveying all the journals you think are going to be important in the REF, and confident that they are all meeting—

David Sweeney: Not at all. People are entitled to submit to the Research Excellence Framework whatever they want. We, as I said earlier, do not look at the journal in which it is published. We will welcome submissions for the, I assume, 2020 REF. We have established a principle that, where reasonably achievable—and teasing that out with the community will be the main focus—we will expect submissions to be open access, following the criteria that is generally agreed. For the purposes of research assessment, there is no choice. We do not care whether it is gold or whether it is green. It is the free dissemination of information that is important.

When it comes to the definition of open access, we will fall back on the embargo periods of the Research Councils that are agreed with the publishers and the community, and indeed, we do participate in that.

Q67 Earl of Selborne I would like to touch on licences, and I think we all recognise that one component that has to be discussed with the stakeholders is the appropriate licence, and I know you have a preference for the CC BY, which is the Creative Commons Attribution Licence. That clearly is the most advantageous if you want to put research findings funded by public sources into circulation as quickly as possible. Can you imagine that some of the other licences might be appropriate in certain circumstances? Would it be, for

example, possible for a stakeholder who felt that a non-derivative or non-commercial option was more appropriate in their case? Would it be open for them to discuss that with you?

Professor Rylance: Speaking personally, I prefer something that is simple. One of the advantages of the CC BY is that it provides the baseline expectation. It is possible, even in my area, to imagine circumstances in which that may not be quite appropriate. I am thinking about issues around translation, for instance, or issues around third party copyright holders, which is embedded within it, although there are quite careful protocols within CC BY about how you handle that kind of thing. We have, collectively, a mutual education about the advantages and the real pitfalls of this, and this is why, again, this 2014 review is so crucial. If we get a weight of evidence that CC BY as the norm is creating real difficulties in certain kinds of areas, then that is something we would take very, very careful account of. At the moment, everybody is so alarmed about the possibility of this, but nobody has quite said to me, “In this area, that is a real obstacle”.

Earl of Selborne As the Chairman has said, our take on this is that OA is desirable and it has to happen. It is simply a question of trying to work out how the transition is going to operate most smoothly for all stakeholders. Whether the date is 1 April or 1 May, there is clearly going to be a lot of unfinished business.

Professor Rylance: Indeed.

Earl of Selborne It is not a detail. Would you accept that this is a matter of some concern, not least to the publishers, but to the authors and to the institutions? Would it not be sensible, perhaps, to park issues like this on one side and say, “Let us go with the main thrust, but there are lots of issues that we will need to discuss and certainly review”?

Professor Rylance: My quick observation about that is that, certainly, keeping these things under scrutiny over an extended period of time is absolutely necessary, but I think you start from a position whereby CC BY is the default position, and then you try to discover what is

wrong with that. Otherwise, what you are going to get is a chaotic sense of difference—are there about 10 options now under CC BY licences that people could opt for? Including a more radical one, CC—

The Chairman: Professor Kell, and we are going to have to draw the session to a close very shortly.

Professor Kell: There is a lot of existence of proof out there already where CC BY has become the norm, so I think we can start from a good position, which, as Professor Rylance says, makes life simple. There are easy, well known ways of dealing with, for instance, third party works that you have included, and I will just give an anecdotal example. A recent paper I published—the most recent—was open access and gave away a lot of software as well, except for a bit that we had got a licence for, which was not give-away-able, and, therefore, that was the condition, “You can have all of ours, but you cannot have the bit that we licensed. You will have to go and ask the original licence-holder for that”. These are well established in this world, this sort of stuff, so I am pretty confident that CC BY is the right way to go, and then everyone can use stuff unencumbered. Since one or two people have raised probably the question, “Is it plagiarism?”, no, it is not at all. There is a lot of explanation as to why CC BY does not allow plagiarism, if you look at what the licence says.

Q68 Lord Rees of Ludlow: This question is really about the strong UK journals, which depend on getting a large proportion of their authors from abroad. Do you think there is going to be any risk of that being jeopardised and, therefore, the standards of the journals being jeopardised, if they change in response to UK policy?

Professor Rylance: We clearly did have some conversations with the likes of *Nature* and so on about that kind of question. *Nature* are not saying to us, “We are really anxious about this”. They have a bullish confidence in their own place in the world and do not expect that that will be threatened. The same probably is true of *Lancet* and so on.

Lord Rees of Ludlow: That may not be typical of the more specialised journal, which is highly rated because it has an international authorship.

Professor Rylance: That could be the case, but I would want to look at it on a journal-by-journal basis, rather than saying, “I am deeply anxious about everything in area X”.

Baroness Sharp of Guildford: Just a very quick question. I was wondering what sort of consultation you had about the CC BY licences and so forth, either beforehand or during the process. As you rightly say, you have had a series of meetings since you published your *RCUK Policy on Open Access* last July. Has it come up as a major issue of consultation?

Professor Rylance: I just observe that the two topics that come up repeatedly are the issue around embargoes and the issue about CC BY. Those are typically the two presented points.

Baroness Sharp of Guildford: Have you had any discussion with industry, other than the publishing industry, about it?

Professor Rylance: About CC BY? I have not.

Professor Kell: No. In my world, it has not been seen as a particular issue because the desire is to disseminate your stuff as much as possible and in an unencumbered way. Of course, most of the history of recent OA publishing has been in biology-type journals, so we have not seen it as a particularly big issue, in truth.

Professor Rylance: The kind of thing that is coming at me from my end are people who want to publish a novel, so with the trade press, and there are clear differences there, but of course this is about journal articles and not about books. Then there is a rather complicated area around design as well, which is not finished.

Q69 The Chairman: I think I need to draw it to a close because we have run out of time, but I would like to thank you very much indeed for the answers to our questions.

There are a number of things that you have kindly agreed to follow up with. There was the table, the international summary of where different countries are on open access and their

plans and policies for green and gold open access in the future. There is whatever material you have on the cost-benefit modelling, both in terms of the costs of green in relation to gold, where you said, I think, there was a study that demonstrated that gold was a cheaper option than green, and on the cost-benefit modelling of the cost to the higher education sector in terms of transfer to open access and the benefits to UK industry, if you have any modelling on that. Finally, you said you would provide us with some information on major journals that are not compliant with RCUK policy, if indeed there are any. We have asked the higher education witness panel to provide us with some evidence, so it will be interesting to see how your list compares with theirs.

Professor Rylance: With particular reference to *Science*, I think.

The Chairman: *Science* was one example, but others, if you have any others. You will of course receive a transcript in draft form in a short period, and you will have an opportunity to make any editorial changes you wish to, but in the meantime I would like to thank you very much indeed for your evidence. Thanks very much. A very good session.