

Witness Name: Jonathan Price

Statement No: 1

Exhibits: 24

Dated: 15 November 2023

UK COVID-19 INQUIRY

WITNESS STATEMENT OF JONATHAN PRICE

I, Jonathan Price, will say as follows:

I provide this statement in response to a request under Rule 9 of the Inquiry Rules dated 9 August 2023 and referenced M2B/TAG/JP/01. The request relates to the period 21 January 2020 to 30 May 2022, which I will refer to as the specified period.

Introduction

1. I joined the Civil Service and Government Economic Service as an economist in 1990. My first posts were in Ofwat, the economic regulator of the water industry. I then held a post in the Office of National Statistics before, in 1996, moving to Welsh Office (as the UK Government department which then had responsibility for Wales, before the National Assembly was established in 1999). I have worked as an economist at Welsh Office and, subsequently, within the Welsh Government, continuously since then. I have worked across a range of economist posts in the organisation prior to becoming Chief Economist in 2004.
2. The Chief Economist leads the provision of economic analysis, evidence and advice to Welsh Ministers and senior officials and provides professional leadership to

economists across the Welsh Government. The post has line management responsibility for the Economics and Fiscal Analysis Division (formerly known as the Economic Advice Division), comprising economists and other analysts within the Welsh Treasury. Key responsibilities of the Division include: providing analysis and briefing on Welsh economic prospects and the factors influencing Welsh economic performance over the short, medium and long-term; advising on the economic appraisal and value for money of laws, regulations, policies, programmes, and projects; providing, reviewing, and assuring economic evidence relevant to the development and evaluation of Welsh Government policies; leading and developing the economics profession within the Welsh Government, including ensuring that recruitment and professional development is carried out in accordance with the principles established by the Government Economic Service; engaging with other analytic professions to ensure that analysis and evidence is provided in a holistic way that supports policies aimed at promoting the well-being of the people of Wales over the long-term; contributing to the leadership and development of the Welsh Treasury, the Economy, Treasury and Constitution Group and the wider Welsh Government; developing a devolved fiscal strategy and advising on the devolution of further fiscal powers and responsibilities; leading the team responsible for fiscal analysis, including the assessment of prospects for future Welsh Government revenues from devolved taxes and from the “block grant” that the Welsh Government receives from the UK Government. I am responsible for overseeing the production of regular reports by the Economic Advice Division, in particular, the annual Report of the Chief Economist, which provides an overview of the economy in Wales over the previous year (and which is published alongside the draft Welsh Government budget) and the Monthly Economic Report, which is circulated internally within Welsh Government. I exhibit by way of example copies of the annual reports of the Chief Economist from 2020 (**M2BTAGJP01/1-INQ000066146**) and 2021 (**M2BTAGJP01/2-INQ000066147**) and copies of the Monthly Economic Reports from October 2020 (**M2BTAGJP01/3-INQ000350583**) and June 2021 (**M2BTAGJP01/4-INQ000350582**). During the specified period these reports provided high-level assessments of the overall economic impact of the pandemic on a continuing basis.

2. My role is exclusively concerned with the provision of economic analysis and other evidence. I am not involved in the development of policy and I am not involved in

the making of policy decisions. This remained the case throughout the specified period. Prior to January 2020, I had no previous professional experience of dealing with either public health responses to communicable diseases, or any coronaviruses.

2. I have a first degree in Philosophy and Economics (Bristol University) and master's degrees in each of Economics and Philosophy (Cardiff and Birmingham Universities respectively).

Role of the Economic Advice Division during the specified period

2. During the specified period, it was the role of the Economic Advice Division (as it was called during the specified period) to contribute to analysis and advice on the economic effects of the pandemic, taking account of the interaction of the pandemic with other factors affecting the economy in Wales at the time, including the consequences of the UK leaving the European Union. As well as the Monthly Economic Report and the annual Chief Economist's Report, to which I have referred, more specific input was provided by the Division in response to specific requests from colleagues working on Covid-19 related policy within the Welsh Government.
2. I also provided regular updates on the economy at Cabinet meetings, as and when required. I exhibit by way of example minutes of the Cabinet meetings that took place on 28 September 2020 (**M2BTAGJP01/5-INQ000048928**) and on 22 February 2021 (**M2BTAGJP01/6-INQ000057892**) and a paper that I prepared for Cabinet, dated 4 June 2020, setting out Wales's economic prospects in the wake of Covid-19 (**M2BTAGJP01/7-INQ000129875**).
2. On 13 July 2021, I presented on the effect of Covid-19 on the labour market in Wales to ExCovid. I exhibit the slideshow for that presentation as **M2BTAGJP01/8-INQ000350509**.
2. I would clarify though, that the principal economic input into Covid-19 related policy decisions, including the imposition and relaxation of specific non-pharmaceutical interventions, was provided by the Covid-19 Project Team itself and not the

Economic Advice Division. Two economists from the Economic Advice Division were seconded to the Project Team to assist with the economic aspects of the Project Team's work, including the assessment of the likely economic impact of proposed non-pharmaceutical interventions or their relaxation. The advice and analysis that the Economic Advice Division was requested to provide from time to time was on a more ad hoc, high-level basis. For example, I recall having a discussion with colleagues in the Business and Regions Directorate in relation to a query they had raised about how the impact of restrictions on the accommodation and food sector that fell short of a full shutdown might be assessed, and I concluded that we had no fully objective basis for doing this ex ante. All that was feasible was to make some broad illustrative assumptions about how the varying levels of usage might be affected by restrictions of different kinds (such as allowing only external dining). I do not have documentary records of this discussion and I do not know if, or how, my input might have informed any policy decisions that were subsequently made.

The Socio-Economic Harms sub-group of TAG

2. The key change in my role during the pandemic was participating in and chairing the Socio-Economic Harms sub-group (SEH) of TAG. The SEH was established in the summer of 2020 to provide assessments of the full range of socio-economic effects of the pandemic, other than the health effects, including the effects of the measures put in place to control the disease. The SEH met for the first time on 23 July 2020. The group was concerned primarily with the medium and longer-term socio-economic impacts of the pandemic, rather than attempting to assess the more immediate socio-economic impact of specific non-pharmaceutical measures, which as I have explained was principally the domain of the Covid-19 Project Team and those colleagues working on the 21 day reviews. The SEH was established by and reported to TAG, primarily through me as a member of TAG, and in this way the work of the SEH informed TAG's advice and assessments during the specified period. I exhibit the SEH's Terms of Reference as **M2BTAGJP01/9-INQ000239532**, dated 3 September 2020.
2. To carry out its function, the SEH drew on a range of existing data, research and analysis relating to previous periods of reduced economic activity, such as the labour market consequences of major economic recessions. This included the

evidence that was relied on in the UK Government's report "Direct and Indirect Impacts of COVID-19 on Excess Deaths and Morbidity", a copy of which I exhibit as **M2BTAGJP01/10-INQ000350255**, which drew heavily on previous studies into the impact of recessions on public health. Similarly, there was a body of research published in the early stages of the pandemic that drew on evidence from previous recessions in order to understand the potential adverse longer-term economic impacts of Covid-19 on young people entering the labour market, see **M2BTAGJP01/11-INQ000350798** (dated June 2020). It was a key aspect of the SEH's role to identify, analyse and synthesise the available evidence, and to consider how that evidence assisted in determining what the potential longer-term socio-economic impacts of the pandemic and the restrictions might be. The evidence that we had available to us provided some level of guidance in that regard, but these were very much imperfect analogies and there was of course no way of being certain as to the extent to which the novel circumstances that we were facing might play out from an economic perspective.

2. I relied, in particular, on the UK Government's report "Direct and Indirect Impacts of COVID-19 on Excess Deaths and Morbidity" as the principal basis for the early analysis that I prepared for the SEH entitled "Covid-19 Recession – Quantification of Socio-Economic Harms". In this paper, which I exhibit as **M2BTAGJP01/12-INQ000349969** (dated 2 November 2020) I sought to quantify the potential overall impact of the pandemic on socio-economic outcomes in Wales and included an illustrative example of how some of the impacts of a "firebreak" lockdown might be quantified (though the analysis was never intended to and was not in fact used to inform any decision about any proposed restrictions, including a firebreak lockdown, which had already been implemented at the time the paper was produced). The paper was discussed at a meeting of the SEH on 4 November 2020, the minutes of which I exhibit as **M2BTAGJP01/13-INQ000312592**.
2. The membership of the SEH comprised mainly of policy officials from across Welsh Government, as well as representatives of Public Health Wales. In addition, new members from external organisations joined over the lifetime of the group, including an academic from Cardiff University Business School and a representative from the Social Mobility Commission, in order to expand the diversity of expertise. The group was deputised by Brendan Collins, who chaired the meetings when I was not able

to, and who made a major contribution to the work of the group, drawing on his extensive expertise as a health economist to assist in synthesizing key research findings. I understand that Brendan Collins has also provided a statement to the Inquiry, reference M2B/TAG/BC/01.

2. I have been asked to comment on whether the SEH was composed of sufficiently diverse disciplines and whether it would have been useful to involve individuals from independent or third-party organisations. In my view, the work of the group would not have benefited greatly from further external input. This is both because of the inherent and irreducible uncertainties associated with much of the work with which the group was engaged, which I do not believe would have been materially reduced with additional expertise; and also the relatively limited pool of people with the required level of knowledge of the Welsh socio-economic context. Given these constraints, in my view the group was of appropriate scale and diversity.
3. The SEH carried out two key pieces of work during the specified period. First, the sub-group produced the report that had been requested by TAG and which was ultimately published by TAG on 25 November 2020, called “High level summary of evidence on costs and benefits and potential mitigations for measures to address Covid-19 in Wales”. I exhibit this report as **M2BTAGJP01/14-INQ000066302**. As the title of the report indicates, the purpose of the report was to provide a high-level summary of the major benefits and costs, including socio-economic harms, associated with the measures and restrictions that had either been applied to date or which were under consideration for future implementation. The report referred to likely short-term impacts but, for the reasons I have explained, its focus was more on the longer-term effects of the pandemic and associated measures. For example, the report considered the potential for a reduction in lifetime earnings as a result of the closure of primary schools. Harms that were directly health-related, such as harms arising out of the restriction of access to the healthcare system to reduce non-Covid-19 pressure on the system, were not considered in the report as they were outside the remit of the SEH.
2. The SEH worked on the analysis that eventually formed part of the report of 25 November 2020 over the first few months that the group was operating. The draft report remained a “living document” over this time and was updated by the members of the group in advance of each meeting, when the draft would be further

discussed. Copies of these earlier draft iterations of the report can be provided on request, if the Inquiry would like to see them.

2. Second, the SEH contributed to the report that was published by TAG as “The potential risks and benefits of removing restrictions in a phased approach to mitigate the impact of harms from Covid-19 in Wales”, dated 5 March 2021, which I exhibit as **M2BTAGJP01/15-INQ000066356**. A similar approach was taken in this report to the analysis carried out for the purpose of the first report, in which each separate type of restriction was considered, alongside the potential high-level, and generally longer-term, socio-economic benefits and costs of removing the restriction. I do not now recall specifically what the role of the SEH was in relation to the production of this report, but having been provided with the minutes of the meeting of the group on 25 February 2021 at which the report was discussed, I understand that a request had been made to TAG by the Office of the First Minister, and that the SEH was requested to provide feedback on the draft report before it was submitted to TAG for publication. I exhibit the minutes of the meeting of the SEH on 25 February 2021 as **M2BTAGJP01/16-INQ000312586**.
3. My role in the production of these materials represents the extent of my involvement in the work that was carried out in relation to non-pharmaceutical measures in Wales. I was not a member of SAGE, nor of any other groups or sub-groups relevant to the Welsh Government’s Covid-19 response.
2. The SEH met regularly until the end of 2021. It had its final meeting on 14 March 2022. I have exhibited minutes for two of these meetings above. I exhibit copies of the minutes for the rest of the meetings of the SEH that took place (from 23 July 2020 to 14 March 2022) as **M2BTAGJP01/17-INQ000369597**.
2. I have been asked whether I consider there was a degree of “groupthink” within the SEH. I recognise that the SEH’s main method of working, whereby reports were drafted by Welsh Government officials and agreed by the group following collective discussion, may have been, in principle, vulnerable to groupthink. However, I am not aware that “groupthink” actually occurred within the SEH or influenced the conclusions of the group.

2. I have also been asked whether in my view the fact that the members of the SEH were largely undertaking the work that they carried out on a voluntary basis had an impact on the ability of the group to provide quality and timely advice. I do not consider that the fact that the members had other commitments resulted in the provision of assessments that were in any way deficient or untimely. I would also add that it is not accurate to refer to the work that the SEH was carrying out as the preparation or provision of advice, for the reasons I have explained above. It was the SEH's function to provide commentary on and syntheses of the available, relevant evidence with the intention that this would provide an understanding, to the extent that this was possible, of the broader context in which decisions about specific measures could be made.
2. The SEH did not have any direct communication with SAGE, and I had no direct involvement in SAGE (either as a member or an observer), nor did I attend any SAGE meetings. I am aware that when SAGE published its table that outlined the potential benefits of various possible restrictions, in September 2020, this was circulated amongst the SEH, because I have been provided with the relevant email to the group that included the link to the paper as part of my work on this witness statement. I exhibit that table as **M2BTAGJP01/18-INQ000349890** (dated September 2020) and a copy of the email that was sent to the members of the group on 14 October 2020 as **M2BTAGJP01/19-INQ000349944**. I do not have any specific recollection as to how the SAGE table was used by the group and I do not have any recollection of the group considering any other material produced or published by SAGE during the specific period.
2. I have also been asked to comment on any significant challenges or difficulties that I faced as the chair of the SEH. I believe the primary constraint on the assessments made by the SEH was the fundamental uncertainty about the socio-economic consequences of both the pandemic and the measures that were put in place in response. In my view, this uncertainty would not have been much reduced by further analysis, modelling or data gathering, or anything else that the SEH (or any other organisation) could have done. The sources of this uncertainty were various, but included: the lack of relevant precedents from which to draw evidence; the changing nature of the economy over time, particularly the increasing scope for remote activity which reduced the economic impact of the pandemic compared to

what would otherwise have been expected; the unknown extent to which people would in any case have restricted their activity in the absence of restrictions (making the additional effect of restrictions difficult to determine); the complications resulting from the (also uncertain) impact of other factors affecting the economy at the time, including Brexit; and inter-temporal dependencies, whereby changes in behaviour (including as a result of restrictions) that had a negative economic effect in one period might nevertheless result in better economic outcomes over the longer-term, as a result of slowing the progress of the disease. This latter consideration was linked to the prospects for the progressive introduction of vaccinations and improved treatments, the speed of which was of course another key uncertainty.

2. For these reasons, it was generally not possible to link, in any definite or quantified way, particular socio-economic outcomes to specific events or interventions.
2. To be clear, though, these challenges were less the result of a lack of data than they were the result of the absence of any robust basis for assessing what the impact of the restrictions were likely to be, particularly over the medium to longer-term, and what “marginal” differences the restrictions were likely to make in the context of behaviours that would in any case change because of the pandemic. It was this uncertainty that was our main constraint. I make this distinction because I have been asked to comment on whether the SEH had access to sufficient data to assess the socio-economic harms of the pandemic on Wales. It is correct that the data was in some areas and in some respects limited. For example, better and more timely data might have improved the estimates of the impact of the reduction in business activity on GDP and the labour market. However, in my view, having access to such improved data would not directly have yielded ex ante information on what difference specific restrictions would make, given that people were changing their behaviour even in the absence of restrictions.
2. In addition, economic effects, and their socio-economic consequences typically “spill-over”, so that ultimate, and longer lasting, outcomes can affect business sectors, areas and population groups that differ greatly from those originally impacted. In principle, sophisticated modelling could illuminate such relationships, but in practice models to do this on a reliable basis impact were infeasible in view of the extent of

the uncertainties associated with a novel set of circumstances such as confronted us in the pandemic and as described above.

2. An illustration of the limitations on our ability to forecast the socio-economic effects of the pandemic is in relation to the interruptions to business activity, the adverse consequences of which have been much less severe than originally anticipated, particularly over the longer-term. This was undoubtedly in part because of the (again perhaps unexpected) level of effectiveness of the support measures that were put in place by governments. The clear lessons from previous instances of disruption to the labour market may be one reason why these effective responses were put in place. It also seems that another factor was that the response of businesses to what was perceived as a temporary interruption to business-as-usual was quite different from what the response might have been, had the pandemic been perceived from its outset as presenting the longer lasting changes to fundamental economic conditions of the kind that often follow a major recession. Businesses therefore responded to Covid-19 on the basis that the interruption to their normal activities was assumed to be temporary – and this put them in a different position from the position in which that they might have found themselves, had they operated on the basis that the interruption was set to be longer-lasting. For example, businesses might have been more likely to permanently close sites, or to shed labour on a permanent basis, had they responded to the pandemic on the basis that it presented more than a merely temporary interruption to business-as-usual. In consequence, conclusions drawn on the basis of previous recessions may have been unduly pessimistic.
2. At the same time, the lack of precedents may also have resulted in an under-emphasis on the impact of school closures and the disruption to education, neither of which have been features of previous economic recessions. And again, whether those impacts could be attributed to the decision to close schools specifically is very difficult to assess with any certainty, given that adverse socio-economic consequences might also have arisen had school closures not taken place, as parents might have (voluntarily and differentially) withdrawn children from school as the pandemic evolved. The “marginal” effects of school closures therefore would have been difficult to assess, even if there had been evidence from prior experience of school closures, for example as a result of strike action.

2. The uncertainty about key factors and the lack of evidence meant that it was not feasible to undertake fully quantified cost-benefit analyses of packages of restrictions. The most that could be done was to provide assessments of the relevant available evidence to support the selection of packages of restrictions that might plausibly be expected to be the least costly in socio-economic terms, taking account so far as possible of what might be disproportionate impacts on certain population groups, while achieving a given policy objective of temporarily reducing infections below a level that could lead to the health and care service becoming overwhelmed. This might be termed seeking to “flatten the sombrero in the least harmful manner”.
2. In summary, I therefore believe that attempting to draw broad-brush conclusions on the basis of a wide range of evidence from across the UK was the right, and probably the only feasible, approach, and I believe that the SEH was well equipped to carry out this analysis. Of course, in drawing such conclusions it was important to consider the ways in which the Welsh context differed, for example, in terms of its industrial structure (including the importance of tourism to the Welsh economy), lower levels of income, and higher levels of poverty.
2. I have been asked to comment on the extent to which regard was had by the SEH to at risk and vulnerable groups, including those with protected characteristics. The nature of the available evidence in this regard was fairly limited, and did not permit a comprehensive examination by the SEH of the socio-economic impacts of Covid-19 on specific vulnerable groups or groups with specific protected characteristics in particular, as distinct from the impacts on the general population. The SEH had regard to the material that was available from external sources. I exhibit, for example, the presentation given to the SEH by Professor Stephanie Van Goozen as **M2BTAGJP01/20-INQ000350821** (dated July 2021), which concerned the impact of the pandemic on vulnerable children and families. The data presented, while informative, was limited and of uncertain reliability, simply because it was based on a small study of a very specific group. Another example is the presentation that was given to the SEH by NR on behalf of the Welsh Government's Knowledge and Analytics Service (KAS) which sought to identify the groups that were thought to be particularly vulnerable to the pandemic. I exhibit that presentation as

M2BTAGJP01/21-INQ000350820 (dated 19 October 2020). This information was important and helpful, but it did not provide conclusive evidence as to the impact of the pandemic on those groups. The general approach of the SEH was therefore to infer, as far as was feasible, the likely impacts on population sub-groups on the basis of evidence from previous periods of economic dislocation and the characteristics of the sub-groups.

2. Finally, while I do not believe that the work of the SEH was materially constrained by a lack of analytical resources, the relatively limited administrative support that was available to the SEH meant that there was less complete documentation of the deliberations of the group than would have been desirable. While major assessments and summary conclusions were recorded, much of the discussion and supporting evidence and academic references were not. This is no reflection on the (very small) number of individuals involved, all of whom were diligent and highly effective.

TAG

2. To the best of my recollection, I joined TAG at some time in the summer of 2020, shortly before I took on the role of chair of the SEH. I believe that I was invited to join TAG by the CSAH. My role on TAG was to present evidence on the socio-economic impacts of the pandemic so that this could be considered alongside evidence on the health impacts of the pandemic, including effects on the Welsh health and care system, that was presented by other members of and contributors to TAG. I attended meetings depending on the agenda. I would estimate that I was present for around half of the meetings that took place over the specified period. Other members of TAG, particularly those members with expertise in public health, also contributed relevant evidence on socio-economic impacts as well as me. I do not have any expertise in the areas of science, epidemiology, modelling, or health. My contribution to the work of TAG was confined to the provision of information about socio-economic issues.
2. The evidence I presented to TAG included the outputs of the SEH, including the two reports I have exhibited above, but I can also recall providing my own assessments of economic evidence as it emerged from other sources, such as latest official

statistics on developments in the labour market. The latest labour market statistics reflected in part the most recent impacts of the pandemic; the SEH focussed more on the evidence obtained from previous periods of economic disruption, as I have described, as these were more helpful in trying to predict the likely longer-term effects. The emerging labour market statistics did however enable TAG to monitor some of the more immediate effects of the pandemic, even if it was difficult to predict on the basis of those figures whether the changes that we were seeing were short-run effects that were likely to be reversed in time, or part of more longer lasting consequences. These contributions that I made to TAG were verbal.

2. While socio-economic issues were clearly of importance to TAG (indeed, this is precisely why the SEH was established), the principal focus of most of the TAG meetings that I attended was on the rapidly developing health impacts of the pandemic, the evolving scientific evidence, and the modelling work that TAG was overseeing. While I participated in these discussions to a certain extent, and I can recall that I did on a few occasions raise questions and provide challenges to material that was presented on these topics (for example, in respect of modelling of prospective pressures on Welsh hospitals) most of the analysis and debate was carried out between the individuals with the relevant expertise in these disciplines and I did not regard it as generally appropriate to dissent from conclusions drawn by experts in their respective fields. Similarly, aside from the papers that I have already referred to, I had only limited substantive involvement in the materials that were produced by TAG, which were more focussed on the health and scientific aspects of the pandemic.
2. I have been asked to comment on the effectiveness of the way in which TAG provided advice to Welsh Government. I understand that the contributions that I and the SEH made to TAG were reflected in the advice that was provided to Ministers by the CSAH and the CMO on the impact of the restrictions, but generally I was not copied into this advice and I had no insight into how my input, or the input of the SEH, fed into specific decisions. Similarly, I had no involvement in or insight into the way that the material that was presented and discussed by TAG more widely was then relied on when providing advice to Welsh Government, which was a matter for the CSAH to decide. For this reason, I am not in a position to comment in an informed way on the strengths and weaknesses of the process whereby the CSAH

and the CMO were the interlocutors with policy-makers. I was not a party to the process.

2. I have been asked whether I consider that there was a degree of “groupthink” within TAG. During my attendance at TAG meetings, I never felt inhibited in expressing my views on matters in which I had expertise, and I do not recall hearing any other members of TAG reporting that they felt so inhibited. I would also say that I recall vigorous discussions amongst members and attendees during some of the TAG meetings that I attended, with a variety of views being expressed. I have no reason to believe that the work of the group was not subject to sufficient challenge.
2. I have been asked whether I consider that there was a clear definition of roles within TAG and the SEH. Beyond the Terms of Reference for both groups, I am not aware that individuals had or were given specific, defined roles, but my experience was that this did not pose any difficulties or hinder the way that the groups were able to operate. In my view, the ability to question and provide challenge on issues that were on the borderline between fields of professional expertise could have been inhibited by the drawing of clear lines.
2. As I have explained above, the SEH was established by and reported to TAG. The SEH operated independently of TAG’s other sub-groups and I do not recall that we had any direct engagement with any of the other sub-groups. I have been asked to comment on a statement made by Professor Christine Bundy (INQ000183844) that, in her experience, the different advisory groups did not talk to each other sufficiently and that there was no communication across the groups. My experience was that this lack of direct communication between the different sub-groups was not a problem, and had I considered that the SEH needed to be engaging more proactively with other sub-groups, I would have taken steps to make this happen. It was the function of TAG to draw together and synthesize the work of the various sub-groups, and as far as I was aware this system worked efficiently and effectively.
2. The SEH did not directly report to or otherwise directly engage with Ministers or any of the teams that were responsible for advising Ministers (such as the Covid-19 Project Team) and we did not have much oversight as to how our input was relied on or used once it had been passed on to TAG, as that was a matter for the CSAH,

as I have explained. I did not have any involvement in any discussions concerning what the CSAH decided to do with relevant evidence that had been presented to TAG. I was, though, on a few occasions on an ad hoc basis, asked for my input in relation to the economic aspects of materials that were being prepared for Cabinet, or Ministerial Advice, or advice to be provided to Cabinet by the CMO. My input on those occasions was fairly limited and I did not have any further involvement in any broader discussions, or any decisions, that might have been made in the context of the materials to which I contributed.

2. I have been asked to comment on the process by which Welsh Government Ministers or their representatives were able to commission scientific advice from TAG. As I have explained, I had no substantive involvement in TAG's scientific work, and so I am unable to comment on the commissioning of scientific advice. On the socio-economic side, I do not recall specific advice being directly commissioned by Welsh Government Ministers (either from the SEH or from TAG), although I do recall from discussions with the CMO and the CSAH that Ministers were greatly concerned with socio-economic harms associated with the pandemic. This is reflected in the establishment of the SEH by TAG.
2. As to the work that the SEH carried out, I do not recall there being a process for feedback to be given by TAG (or by anyone else) and I do not recall receiving any feedback or being informed how the work of the SEH had been relied on or taken forwards after it had been presented to TAG. I can see now that this might have been good to know, but it was not something that concerned me at the time and I do not have any reason to believe that receiving such feedback would have made any significant difference to the operations of the SEH. Officials were working under great pressure and might have reasonably considered that the provision of feedback was not a priority, except where it was needed to influence the activities of the sub-groups. I am not aware that this applied to the work of the SEH.
2. My memory is that many of these processes and practices, including, specifically, the way that the SEH engaged with TAG, evolved over the course of the specified period, and it is difficult to draw general conclusions about things working particularly well or badly. I do not recall any clear deficiencies in the processes by which evidence was gathered and applied by the SEH (or, to my knowledge, by

TAG more generally), though I think our experience was that the effective integration of evidence of radically different kinds to support a balanced judgement posed a major challenge. The evidence on the health and mortality impacts of an ongoing pandemic, including the impact on the health service, is relatively tangible, and forecastable (if imperfectly). By contrast, many of the socio-economic effects, while potentially very large, are subject to high levels of uncertainty and, with many arising in the relatively distant future, cannot be measured or monitored in real time. There is an obvious risk of the more tangible and present outcomes dominating less tangible and future ones, by which I mean, that there is a tendency to focus on the more immediate harms because these are more obvious and appear more urgent, to the detriment of taking steps to understand and identify mitigations against the longer-term picture. However, the experience of the pandemic does not lead me to a clear conclusion about the specific organisational structure that would be best suited to such a challenging context, and I do not think that a different structure would have resulted in different outcomes in Wales. I do think, with hindsight, that the earlier creation of the SEH and the involvement of economists might have been desirable in principle, but I have seen nothing to suggest that it would have resulted in different outcomes.

2. I am also asked whether I agree with a comment made by Dr Christopher Johnson (INQ000183826) that: “It sometimes felt like the ability of the groups to maximise effective operation was sometimes handicapped by unequal access to information or to influence the timing of actions which had impacts in all 4 nations.” This was not something that concerned me as chair of the SEH – I was not aware of there being any issues with unequal access to information across the four nations, in relation to the type of information with which the SEH was concerned. Of course, that is not to say that unequal access to information might have been a concern for other groups, but that is outside my knowledge.

The early stages of the pandemic

2. I cannot remember when I first became aware of Covid-19, but I believe it was through public news media rather than work channels. I do not recall having any engagement with economists in other UK Government departments, or with any other bodies outside Welsh Government, including Public Health Wales, prior to the

end of March 2020. I cannot be sure but suspect I had no idea whether transmission was asymptotic, and I knew very little about epidemiology and concepts such as represented by “R”. I had no involvement in, or any knowledge of, discussions concerning the Stereophonics concerts or the Scotland v Wales Six Nations rugby match.

2. I do recall, although I am unsure of the dates, having a number of informal exchanges (mainly via email) with colleagues about the economic implications. I think this would have taken place after mid-March 2020, probably in April and May 2020. Some of this discussion considered the possibility of undertaking a cost-benefit analysis of lockdowns and restrictions. I remember critical barriers to such an analysis being uncertainty about various parameters of the disease, particularly the infection-fatality ratio, the characteristics of those who would succumb (particularly their life expectancy), and the longer-term consequences of suppressing the disease – in summary, were deaths avoided or merely delayed by a short period. These uncertainties meant that a cost-benefit analysis could give widely diverging results and, in my view, meant that it would be of little value, at least until such uncertainties became much reduced.
2. Of course, this did not mean that it was impossible or inappropriate to seek to estimate socio-economic consequences of restrictions, but rather that such estimates would inevitably be broad-brush, as previously described, and need to be considered “in the round” and balanced against the risks of not restricting behaviour, particularly in terms of the likely impacts of the pandemic on the health and care system, where the consequences were relatively clear and forecastable.

The first national lockdown

2. I have been asked several questions regarding the decision to impose the first national lockdown. As I have explained, in my role as Chief Economist, I had and have no involvement in policy decisions generally and had no involvement directly or indirectly in any discussions that took place in the period before the first lockdown was imposed that related to this decision. The policy considerations that were relevant to that decision were simply outside my remit and I do not consider that I

have the knowledge, experience or expertise to give any informed opinion as to the merits or timeliness of that decision.

April 2020 onwards

2. I have been asked about the UK Government's "Eat Out to Help Out" scheme. I was not consulted about the scheme at the time and I am not aware that TAG was consulted, and I do not have any particular opinion as to the merits or otherwise of the scheme.
2. I have been asked about the impact, if any, of funding received or lack thereof from the UK Government on decisions by the Welsh Government to implement, ease or extend NPIs in Wales. As I have explained, I was not involved in decision making about NPIs so I cannot answer this question.
2. I have also been asked what advice I provided on the economic support packages that were made available to individuals and businesses in Wales. The design of economic support packages in Wales was undertaken by the relevant policy departments, supported by their own analysts. My main involvement was as a member of a "Red Team", which was established by the Business and Regions Directorate to provide challenge to the proposals for business support that the Business and Regions Directorate was developing. The process was led by that Directorate and my contribution was to participate in reviewing and testing the proposals. This was a relatively informal process undertaken mainly in verbal form and over a short period. It is possible that I participated in other informal discussions about the merits of various proposed methods of support, both verbally and via email, but I cannot now recall the detail of any such discussions.
2. I have also been asked about the advice that was set out in the TAG summaries of 11, 18 and 25 September 2020 and of 2 October 2020 regarding increasing cases, and about the firebreak lockdown that was implemented in Wales in October 2020. As I have explained, the extent of my involvement, and that of the SEH, in the work that was carried out around non-pharmaceutical interventions in Wales, was limited to the functions of the SEH and the production of the two key reports, as I have described. I did not have any involvement in any discussions, work or advice

relating to the TAG summaries or the firebreak lockdown in October 2020, either in my capacity as Chief Economist or as chair of the SEH. I simply do not have the relevant knowledge or expertise to offer any opinion as to the merits or otherwise of that decision.

Engagement with UK Government

2. I have been asked about the extent to which I engaged with UK Government during the specified period about the Welsh Government's core decision making. I had no involvement in Welsh Government core decision making, and so I did not liaise with UK Government in that regard, but for completeness I would refer to the Covid-19 Economics Workshop which was set up by HM Treasury and the Department for Business, Energy and Industrial Strategy (BEIS) as a forum in which the Devolved Governments could discuss the challenges to the UK economy presented by the pandemic. To the best of my recollection the Workshop met twice, on 2 April 2020 and 13 May 2020, and I exhibit the agendas as **M2BTAGJP01/22-INQ000349237** (2 April 2020) and **M2BTAGJP01/23-INQ000349430** (13 May 2020). I also exhibit as **M2BTAGJP01/24-INQ000349432**, dated 13 May 2020, a copy of the presentation that I prepared for the second meeting, setting out an overview of the economy in Wales as at that time.
2. This was the extent of my engagement with UK Government during the specified period, to the best of my recollection.

Engagement with the other devolved governments

2. Aside from the Workshops referred to above, I had a good working relationship with the Chief Economist of the Scottish Government but we had little contact about matters related to the pandemic. I do not recall having any contact with anyone from the Government of Northern Ireland during the specified period.

Communication of scientific advice

2. I have been asked to comment on whether the advice of TAG and its sub-groups was sufficiently transparent to the public. I have since been made aware that TAG

materials were published online but I do not remember being aware at the time whether, or how far, TAG advice was in fact accessible by the public.

Lessons learned

2. In respect of lessons learned, I would wish to note the following points:
 2. Although such arrangements were not initially in place, I believe that the Welsh Government quickly learned that it needed effective mechanisms for assessing the socio-economic consequences of both the pandemic and the associated policy responses, and for integrating this evidence into the overall advice on the mix of policies to be implemented. The creation of the SEH as a sub-group of TAG was a reasonably effective vehicle for achieving this. However, challenges remained in providing an overall synthesis of the different forms of evidence, in part as a consequence of the unavoidable contrast between the concrete, direct and immediate evidence of harms from the disease, and the uncertain, indirect and prospective nature of many of the socio-economic effects. As I have explained in this statement, there remained a risk of the former dominating the latter, even where the latter were “large”. While there is no indication that sub-optimal decisions were made because of this tension, this might have been different had the development of vaccines not been as rapid and effective as was the case. For future shocks, of any type, it will be important to design institutional arrangements from the start in a way that ensures the effective integration of different kinds of evidence.
 2. In respect of more specific lessons learned, the Welsh Government has obviously gained a much greater understanding of the economic and social effects of a pandemic and of the effectiveness of policies to mitigate one. There has been particularly valuable learning in respect of the furlough scheme, but also other support mechanisms, such as the loans provided by the Welsh Government. In consequence, the lasting economic harms, particularly in respect of the labour market, appear to have been considerably lower than originally anticipated by many. Again, much of this learning may be transferrable to other kinds of economic shock.
 2. One area where significant learning has taken place, but also where continuing research and analysis will be fruitful, is in respect of the relative cost-effectiveness

of different kinds of non-pharmaceutical interventions, such as mask wearing and the closure of different kinds of business.

2. Another key area where learning should continue is in respect of the longer-term socio-economic and equalities impacts of the interruption to education. The effects here will play out over the medium to long-term, and a continued analytic and research effort is required to assess their nature and scale. It will also be particularly important to devise effective mitigations, both for the harms done by this pandemic and for potential future educational disruption, for any reason that this may occur (whether a future pandemic or an entirely different cause).

Questions not addressed elsewhere in this statement

2. I have been asked to comment on the following issues which I have not already addressed in the body of this statement:
2. I have no view as to whether the boundaries between scientific advice and core decision-making were adequately communicated to the public, as I was not involved in the provision or assessment of scientific advice which is not within my expertise, as I have explained.
2. I have no view as to whether Wales' science-policy advisory mechanisms should be re-evaluated. I had no involvement in this during the pandemic and it is outside my expertise.
2. I have been asked whether I consider that the public should be more engaged in the development of pandemic policy. I do not have any particular views on this, though it does seem to me that greater public engagement in the development of pandemic policy would likely present considerable challenges. Members of the public held and hold various and divergent views on how Covid-19 should be managed. It is also the case that many of the groups most affected can be hard to reach, as they are often disengaged from and suspicious of official bodies. If steps were taken to engage the public more on pandemic policy, it would be necessary to ensure that those groups were heard.

2. I have been asked to provide any suggestions as to how diversity and equality can be addressed, so that any barriers to adherence within certain groups of society can be overcome. I can only address this issue in respect of the preparation of analysis and evidence. It was clear to me, when assessing the available evidence of socio-economic impacts of previous periods of economic downturn, that this body of evidence is particularly limited for certain groups that are either small in number and / or are experiencing some or multiple forms of disadvantage. For example, little is known about the industries within which members of certain minority ethnic groups are employed across different parts of Wales. Robust analysis of, and evidence on, socio-economic outcomes generally depend on statistical information drawn from sample surveys. Where population groups are relatively small, the associated statistical data is often unreliable or simply unavailable. A better understanding of issues of diversity and equality is a priority but will in turn require larger (and more expensive) statistical surveys.

Statement of Truth

I believe that the facts stated in this witness statement are true. I understand that proceedings may be brought against anyone who makes, or causes to be made, a false statement in a document verified by a statement of truth without an honest belief of its truth.

Personal Data

Signed:

Dated: 15 November 2023