Witness Name: Clare Lombardelli

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Exhibits: CL/1 to CL/13

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UK COVID-19 INQUIRY

WITNESS STATEMENT OF CLARE LOMBARDELLI

I, CLARE LOMBARDELLI, will say as follows: -

1. I make this statement pursuant to a Rule 9 request from the UK Covid-19 Inquiry dated 19 June 2023.

2. I am currently the Chief Economist with the OECD, leading on OECD's economic work, having taken on the role on 2 May 2023. Prior to this, I worked in the Civil Service from 2005. I held several positions within HM Treasury during that period, including Deputy Director for Labour Market Policy (2007-2010), Director of Strategy, Planning and Budget (2015-2018) and most latterly, Director General, Chief Economic Adviser from 2018 to 2023. In that role, I reported to HM Treasury's Permanent Secretary. I have a master's degree in economics from the London School of Economics.

3. The Chief Economic Adviser ("CEA") is the primary adviser to the Chancellor on macroeconomic and fiscal issues. The CEA has responsibility for HM Treasury's work programme on macroeconomic and fiscal matters and, working with other Directors General, contributes to the work of HM Treasury to promote sustainable economic growth. The CEA leads HM Treasury's relationship with the monetary policy side of the Bank of England,

international economic organisations, the gilt investment community and the wider economics community. The CEA is responsible for the work of the Economics and Fiscal Groups in HM Treasury, sits on the Executive Management Board, and in this period, jointly led the Government Economics Service ("GES") alongside Sam Beckett, who was then Second Permanent Secretary at the Office of National Statistics, and prior to that Director General at BEIS.

4. During my time, the joint heads of the Government Economic Service had responsibility for:

   a. Leading the GES community to champion the use of economics and to support economists across government;

   b. Chairing the GES Corporate Board, which is the corporate decision-making body for the GES responsible for issues such as recruitment and training;

   c. Being spokespeople for the economics profession across government and to external audiences.

5. In addition to core responsibilities during the pandemic, I was also a panel member for two Cabinet Office-led reviews during that period:

   a. The Review of Two Metre Social Distancing Guidance, which reported in June 2020. Its chair was the then No10 Permanent Secretary (Simon Case); the other panel members were the then Chief Scientific Adviser (Patrick Vallance) and the current Chief Medical Officer (Chris Whitty).

   b. The Social Distancing review, which was part of the 2021 reopening roadmap overseen by the Covid-19 Taskforce in the Cabinet Office. This reported in July 2021 [CL/1/ INQ000181693]. The review panel was led by the Permanent Secretary to the Covid-19 Taskforce; other members included the then Chief Scientific Adviser, the Chief Medical Officer, and representatives from the Department of Health and Social Care, the Department for Business, Energy and Industrial Strategy, and the Department for Digital, Culture, Media and Sport.

6. HM Treasury uses a Group structure to organise its work. Unlike other economic crises, Covid-19 affected every aspect of HM Treasury's work, and every Group played a part in HM Treasury's Covid-19 response. The department's work on Covid-19 was led and coordinated by the Strategy, Planning and Budget Group, which had responsibility for:

a. Synthesising the Covid-19-related advice to the Chancellor and HM Treasury Ministers. This brought together the analysis on economic impacts, business impacts, public services, costs, risks, distributional effects, international experience and other relevant issues.

b. The relationship with, and HM Treasury input into, the central decision-making processes, particularly the Cabinet Office and No10 Downing Street.

7. The Economics Group was one of the Groups heavily involved in the HM Treasury response. It was responsible for the production and interpretation of macroeconomic analysis in HM Treasury. I oversaw this work by the Economics Group. I attended senior cross-government meetings on economic analysis and its interpretation held by the Cabinet Office. The Strategy, Planning and Budget Group represented HM Treasury and took the lead in meetings about policy decisions and overall advice. I joined some of these meetings where economic analysis and its interpretation were particularly relevant.

HM Treasury economic analysis and modelling

8. In developing and interpreting economic analysis and modelling, we sought to take the most realistic and pragmatic approach possible, given the extremely high levels of uncertainty about how the virus, restrictions, and support policies would impact the economy. This was challenging, and our knowledge was evolving rapidly. Like others, we were extremely concerned about the level of uncertainty and the magnitude of the impacts of the virus both on human health and mortality and the many dimensions of its economic impacts. This level of uncertainty drove the approach of using a diverse range of information, data, modelling, and expertise in synthesizing our analysis and communicating the level of risk and uncertainty around the conclusions drawn.

9. Two overarching features of the economic impact of the pandemic were critical to the economic analysis and modelling undertaken during this period. First, the economic impacts were highly uncertain. There was no previous experience of a pandemic of this nature or scale in a developed advanced economy like the UK, a medium-sized open economy with complex interactions between sectors, complex international supply chains, and an extensive welfare system. Uncertainty about a number of critical issues was extremely high. We did not know what the impact of the virus itself would be on the economy. There were high levels of uncertainty about the measures which would be put in place to reduce the impacts of the virus, including the scale, duration, and frequency of those measures, as well as how economic agents would respond to them.

There were also high levels of uncertainty about how rapidly we would gain more information and how that information would help us better understand the impacts.

10. Second, the behavioural response of individuals and of firms changed rapidly over time as people and firms learnt about and adapted to the virus, the restrictions, and the economic behaviour of others. Economic modelling is built on estimating relationships and is most accurate as a predictor of outcomes in different scenarios when it is based on known and stable relationships. The economy adapted rapidly to the virus, to the restrictions and to how the virus evolved, and the measures changed over time. These two overarching features were critical to the economic analysis and modelling with respect to the impacts of the virus, restrictions, and economic support policies.

11. HM Treasury brought together different types of economic information to understand the economic impacts of the virus, restrictions, and economic support policies. It might be useful to highlight:

    a. Analysis of data and evidence of what was happening in the UK and other economies using all the available information, including official statistics and faster and more novel indicators.

    b. Economic modelling of the potential economic impacts using a range of different models to understand different dimensions of how the economy may be affected.

12. Data analysis and economic modelling were used throughout the period, and both assisted our understanding. The use of both evolved as information, experience, and technical capability expanded. There is not a clear distinction between data analysis and modelling; they were highly interdependent throughout. Modelling was used to understand and interpret the data and to help identify which data would be most useful, and data provided inputs and calibration to the modelling.

Data and Evidence

13. Before the pandemic, HM Treasury had a comprehensive economic data monitoring, briefing and analysis function. A range of economic information such as national statistics, official statistics, financial market information, survey data, Consensus forecasts, administrative data and international data releases were used. HM Treasury worked closely with other organisations such as the Office for National Statistics ("ONS"), the Office for Budget Responsibility ("OBR"), the Bank of England, and other economic data producers. We used these sources of data and the established briefing

and analysis function at the start of and throughout the pandemic.

14. Due to the speed, scale, and scope of the economic impact of the pandemic, at the beginning of the pandemic, we supplemented the traditional economic data with additional data sources that were already available and gave a more rapid and real-time picture of economic activity. For example, we used data from mobility applications and hospitality bookings such as Google Maps, Citymapper, and OpenTable. We also secured access to additional data sources, for example, through agreements with financial institutions to provide anonymised data on credit card usage. We also worked with the then Department for Business, Energy and Industrial Strategy to assess available data and intelligence on different sectors of the economy, and we used international data and evidence to understand how the virus was affecting other economies around the world to draw any lessons for the UK economy.

15. Data producers and providers also expanded their data collection throughout the pandemic to aid understanding, and HM Treasury used this as it was produced and made available. For example, the ONS rapidly undertook surveys, including the Business Conditions Survey data [CL/2/INQ000181687], which HM Treasury incorporated into its monitoring, briefing and analysis.

16. As well as expanding the breadth of data collated, we also changed how the data was used. As data covering longer periods of time became available, we were able to begin estimating relationships between variables. For example, as the pandemic progressed, more pandemic-generated economic data could be used in Nowcast modelling, which estimates macroeconomic variables such as the overall level of economic activity and inflation in the near term.

Economic Modelling

17. From the beginning of the pandemic, HM Treasury used economic modelling. Economic modelling provided useful insights into understanding the way the virus may impact the economy and the design of the economic support policies. It helped us understand the possible scale and speed of different aspects of the impact, for example, the number of workers who would be impacted by closing specific sectors of the economy and the possible impact of closing one sector on other sectors. However, Economic modelling was less able to provide reliable estimates of impact to inform specific policy decisions.

18. HM Treasury drew on its own internal economic modelling and used that of other public

sector bodies, international institutions, and academic modellers. The modelling evolved through the pandemic as more data and information became available and as modelling techniques and capabilities improved both within HM Treasury and externally.

19. Before the pandemic, HM Treasury had a range of macroeconomic models it used to understand and map the economy and to inform policymaking. HM Treasury used and adapted its existing suite of macroeconomic models where these were relevant to the pandemic and its potential effects. This would include, for example, Input-Output modelling, which is used to understand the interaction between different sectors of the economy, the National Institute's Global Econometric Model (NiGEM), which is used to understand how shocks impact the UK economy, and Nowcast modelling.

20. During the pandemic, HM Treasury also developed new models and built its modelling capability to understand the specific economic effects of the pandemic and the economic impact of options for economic support policies. A labour supply model was developed to understand the effect of infections, transmission, restrictions, and deaths on labour supply. Epi-macro models were used to understand the interaction between economic activity and the virus. Scenario modelling was used to understand the potential economic implications of different restrictions, different paths of the virus, and different support policies. A firm model was used to understand how different macroeconomic assumptions could translate into firm-level effects such as solvency and employment.

21. HM Treasury also drew on external modelling, as well as wider economic analysis. This included modelling undertaken in the public sector, international bodies, and academia. These wider inputs enhanced our capabilities and allowed us to cross-check and challenge our results. In the public sector, the UK's macroeconomic framework requires that in certain specific areas of macroeconomic modelling, the capability sits in other public bodies. For example, the government's macroeconomic and public finance forecast is undertaken by the OBR, and the Bank of England undertakes its own forecasting in relation to inflation, for which it is responsible.

22. HM Treasury used modelling and analysis by both the OBR and the Bank of England throughout the pandemic period. For example, the OBR undertook modelling and shared the results with us in March 2020, which provided valuable early insight into the impact of the national lockdown on the macro economy "CL/3". They continued to make forecasts for the economy throughout the period at fiscal events. We shared information and analysis between HM Treasury, the OBR, and the Bank of England.

23. Beyond the UK public sector, we drew on international organisations' analysis and modelling. The International Monetary Fund ("IMF") developed modelling estimates that compared the relative impact of the virus and NPIs on economic activity. The OECD produced projections of the economic impacts of single versus multiple lockdown scenarios and a real-time economic activity Nowcast based on fast data. HM Treasury also drew on academic economic modelling, particularly in the field of epi-macro modelling, where techniques expanded rapidly as the knowledge and capability increased. This informed HM Treasury's epi-macro models and, where possible, enabled us to calibrate and cross-check our results. We also drew on private sector uses of economic modelling to supplement our internal modelling. This provided insights into both sector-based modelling and epi-macro modelling.

How the analysis and modelling changed

24. Prior to the pandemic, the majority of economic analysis and modelling within government and in the economics profession had not focussed on potential pandemics. It had focussed on traditional economic relationships and common shocks that arise in economic variables. This is a pragmatic way to allocate analytical resources to best understand the issues that have the greatest anticipated impact on economic wellbeing. It is reasonable to ask if more economic analysis of potential pandemics should have been done in advance. However, the challenge of estimating the economic impacts of potential pandemics is that those impacts are highly dependent on the specific characteristics of the virus, the NPI response, and the behavioural response. Covid-19 was an airborne virus with transmissibility and mortality rates which followed a specific path over time and for which widespread lockdowns were implemented. Viruses with different characteristics, restrictions, or behavioural responses would lead to very different economic impacts. As pandemic planning in general had not focussed on society and economy-wide lockdown, pandemic-related economic modelling undertaken in advance of Covid-19 would also have been unlikely to do so.

25. As the economic impact was highly dependent on the specific characteristics of the virus, we had to learn rapidly as available information about the virus, the necessary restrictions, and the impact of the economic support policies increased. As described above, our access to information, techniques and capabilities also increased rapidly as the virus progressed. We were operating with very high levels of uncertainty, and no firm conclusions and evidence on the economic impacts of the virus and restrictions were available. We constantly reviewed and updated our analysis to reflect the best

available information. The behaviour of people and businesses also changed significantly throughout the pandemic. For example, restrictions had very different economic impacts over time, which is something that we learnt as the pandemic progressed. As such, data and evidence on what was happening in the economy proved a more reliable source of information than modelling results.

26. We used the economic analysis and modelling to inform our understanding of the potential scale of the economic impact and therefore what support schemes might be needed to mitigate those impacts on people and businesses. The analysis and modelling fed into the overall advice provided by HM Treasury to the Chancellor and other key decision-makers to assist their understanding of the economic implications and potential support schemes. The advice the Chancellor received also reflected consideration of a range of issues and analysis undertaken by HM Treasury, such as the impact on public services, education, and skills accumulation, on specific sectors of the economy, costs, revenues, international experience and, later in the process, epidemiological modelling.

27. I can provide a broad description of the economic analysis and modelling used in relation to the three national lockdowns, the proposed circuit breaker and Omicron variant.

Overall approach

28. The economic analysis focused on the expected economic impact of those lockdowns on people and businesses in the short run. Data and modelling based on the sectoral composition of the UK economy proved most valuable in estimating impacts, particularly as many of the policy decisions concerned which forms of economic activity should be closed or restricted and the scale and nature of the support schemes that would be needed. Labour supply modelling was also used to assist the understanding of the impact of school closures on the wider economy as a result of the impact on parents' ability to work. Exhibits [CL/8/INQ000000000]; [CL/9/INQ000000000]; [CL/10/INQ000000000] (which is HM Treasury's contribution to the report titled *Analysis of the health, economic and social effects of COVID-19 and the approach to tiering* published on 30 November 2020) and [CL/11/INQ000000000] provide examples of the analysis produced.

29. In considering each lockdown, timely data on how people and businesses changed their behaviour was critical, given the extent to which this changed as economic agents

adapted to the virus and the restrictions.

30. On 29 June 2022 I gave a speech at King's College London [CL/7/ INQ000088016], which provided information on the economic shock from Covid, the tools we used to understand the economic impact, the design of the economic policy response and provided some early thoughts on potential long-term impacts. In this speech, I wanted to share how we did not have a ready-made toolkit to model the effects of a lockdown and that the 'known unknowns' were a formidable barrier to any reliable predictive capability. That does not mean we rejected modelling out of hand. HM Treasury used economic analysis, including data analysis and modelling, to provide the best information possible on the potential economic impact of restrictions put in place through the pandemic, including the first, second and third lockdowns.

31. Given the degree of uncertainty, this could not take the form of a single or specific estimate or model in terms of GDP or other macroeconomic variables of the impact. Instead, we provided a range of information about the possible scope and magnitude, for example, the number of workers affected by closing a specific sector of the economy, the impact on related sectors, including using gross value added (GVA) measures, the number of working parents affected by school closures. We considered the characteristics of workers in different sectors to inform our understanding of the distributional impacts. All the available data, analysis and modelling were brought together to inform this picture of the potential impacts. This was meaningful but could not reliably provide an overall estimate or model of the economic impact of lockdown at the time. As we learnt more about how people and businesses responded to restrictions and how those responses also changed over time, we adapted this information on the potential impact of restrictions to reflect that greater experience. Behaviours continued to evolve as the context, such as the nature of the virus or the level of vaccination, changed. It was not possible at any point to give an overall real-time estimate of the economic impact of lockdown in terms of macroeconomic variables.

The impact of voluntary behaviours and compulsory restrictions

32. We expected economic impacts from both the voluntary changes people and businesses made in response to the virus and from any compulsory restrictions put in place. It was not possible, in real time, to reliably distinguish between these two effects. There were many unknowns about how voluntary behaviours would play out and how they would interact with compulsory measures and vary with the course of the disease. These are among the many uncertainties that made economic modelling

challenging during the pandemic. We used a range of information to inform judgements on these two effects, for example looking at survey data and observing differences in behaviour where levels of restrictions differed. This included considering different levels of restrictions and responses in other countries such as Sweden, where voluntary behaviour played a larger role and certain Asian economies where compulsory restrictions were higher. Early in the pandemic, and with many caveats, the IMF published an analysis suggesting that the two effects might have been roughly equal regarding their economic impact. We had no clear evidence that contradicted this and so reflected it in our analysis noting the scale of uncertainty.

The first lockdown

33. Understanding the impact of the first lockdown was especially challenging as we had no experience to draw on, and we did not (and could not) know how economic agents would react and interact under lockdown conditions, how effective the lockdown would be in suppressing the epidemic and how effective support measures put in place would alleviate economic impacts. It was challenging to assess economic resilience and how this might vary with time under lockdown conditions and vary across people and businesses. At the time, the overriding policy concern was to put a brake on the course of the disease and to contain and suppress an epidemic that, as far as we knew at the time, could run out of control and lead to widespread suffering and deaths. As discussed, we provided a range of information about the possible scope and magnitude of the impact of lockdown. All the available data, analysis and modelling were brought together to inform this picture of the potential impacts. This was meaningful but could not reliably provide an overall estimate or model of the economic impact of lockdown at the time.

The second and third lockdowns

34. In the subsequent lockdowns, we benefited from insights from the first lockdown. Data showing the economic impact of the first lockdown was useful in understanding how lockdowns can impact a modern complex economy, for example, providing information on the interlinkages between economic sectors or the role of parents as workers.

35. It was clear that individuals and businesses adapted their behavioural response to the virus, the restrictions, testing, the vaccination rollout, and the economic support over time, learning how to reduce the economic impact of the virus and restrictions. It would have been wrong, therefore, to assume that each subsequent lockdown would have

been as economically damaging as the first. If done, this would have overestimated the impact. HM Treasury did not make this assumption in its analysis of subsequent lockdowns.

36. Throughout, there was an extremely high level of uncertainty about the economic impacts of the virus, restrictions and support measures, including how rapidly behaviour would change and how rapidly we would be able to learn from information about behavioural changes. We were wary, therefore, of reliance on deterministic modelling that might suggest confidence and precision, which were unjustified by the underlying uncertainties. Instead, we drew on diverse inputs, insights, and judgements to form the best synthesis we could in the circumstances.

The proposed circuit breaker

37. HM Treasury conducted a scenario analysis of a regional circuit breaker policy and a regional tiering approach to compare the possible impacts on economic activity [CL/12/INQ000000000 and CL/13/INQ000000000]. The scenario analysis used the sectoral composition of the UK and the regional economies in the areas under consideration. This analysis was necessarily very assumption-based, so any conclusions had to be cautiously drawn. This analysis fed into the overall advice to the Chancellor and key decision-makers.

Omicron variant

38. We applied the same approach as previously employed and described above in our economic analysis and modelling for Omicron. However, being further into the pandemic HM Treasury and others had much greater information on the likely economic impacts of the Omicron variant, restrictions, and support policies. This fed into the overall advice to the Chancellor and key decision makers alongside other issues and analysis undertaken by HM Treasury, such as costs, the impact on public services, education, and skills accumulation, on specific sectors of the economy.

39. HM Treasury also developed the capability for epidemiological modelling from autumn 2020 to understand the possible evolution of the virus. This was used to advise the Chancellor in relation to the Omicron variant in December 2021. However, I was not involved in this area of work.

Engagement with external economic experts

40. Throughout the pandemic, the Chancellor had regular contact with key economic experts within the public sector, especially the Governor of the Bank of England (Andrew Bailey) and the Chair of the OBR (Name Redacted and later Richard Hughes). He also spoke to a range of external economists from academic and financial market institutions as the need arose.

41. HM Treasury engaged with a range of external economists with diverse expertise throughout the pandemic. We undertook a formal engagement process between the GES and the Royal Economic Society ("RES"). This brought together leading economic expertise on particular issues of most relevance to the economic analysis and modelling needed to understand and advise on Covid-19 impacts and support scheme design. We jointly agreed the topics and focus for a series of seminars of different sizes and formats. The RES identified the best academics on each issue and helped organise these events. This enabled us to gather UK and international expertise on the very specific modelling and policy challenges which we sought to understand and to hear about other potentially relevant research in the academic community. Issues considered included how best to reopen the economy after lockdown, inequality, epi-macro modelling and long-term impacts. We also drew on a wide range of academic and professional economics papers, some publicly available and some shared with us directly before they were published.

42. We supplemented this RES structure with engagement with the academic and expert economic community. This happened at multiple levels in HM Treasury. External advice, insight and expertise provided important input into our economic analysis and policy advice, helping us sense-check our analysis and test ideas. We engaged with academic experts, research institutes and think tanks, international organisations, and business groups. This directly fed into the economic analysis and advice on economic policy scheme design.

43. In view of my role at the time, I had no involvement in how HM Treasury and the Chancellor engaged with non-economic experts such as epidemiologists, scientists and business people. The exception was meetings between the Chancellor and the then Chief Scientific Advisor and the Chief Medical Officer, which I did usually join.

'Epi-macro' modelling

44. The rapid development of epi-macro modelling in the economics community provided a framework for bringing together epidemiological and economic relationships and

understanding the interaction between health outcomes and economic activity. In this sense, it is a more dynamic form of modelling than many other modelling techniques.

45. HM Treasury began looking at epi-macro modelling techniques early in the pandemic, undertaking a literature review and then rapidly developing our own models. Modelling outputs were shared with the Chancellor from August 2020. We also applied the HM Treasury epi-macro model to specific policy questions as they arose, such as the value of mass testing. Again, the results were shared with the Chancellor.

46. We drew on external expertise in developing our epi-macro modelling techniques, seeking input and advice on interpreting results and how these could be applied to specific policy applications. We spoke to academic experts on both epi-macro modelling techniques and how to apply these models to particular questions around specific sectoral decisions about lockdowns and reopening where understanding the interaction between the virus, restrictions, and economic activity is most relevant. We also drew on the results from epi-macro modelling undertaken by academic economists. Different economists, with different assumptions, undertook a range of modelling, producing a wide range of results.

47. I was responsible for the production and interpretation of modelling and analysis for use by the Chancellor. Decisions on what information was shared outside of HM Treasury were taken by ministers. The Strategy, Planning and Budget group within HM Treasury had responsibility for engaging with the central Covid decision-making process. I do not recall whether HM Treasury epi-macro modelling was shared outside HM Treasury.

48. Epi-macro modelling techniques provided a useful framework and was consistent with the policy approach taken through the 'Smarter NPI's' work, in which HM Treasury analysed the available data on the economic impacts of more granular policy options. This was based upon the insight that restrictions should be compared for their effects on both infection and economic activity and that the relationship between infection and economic activity is not constant. For example, mask-wearing can significantly reduce transmission at a relatively low cost in terms of economic activity, whereas closing the outdoor economy has less impact on transmission but a higher economic cost.

49. The challenge in applying epi-macro modelling to reach specific policy conclusions with potentially significant consequences arises from it applying assumption-based modelling in circumstances where the relationships between variables are unstable. The policy decisions around reopening were granular by date, activity, and location. Epi-macro

modelling was unable to provide a reliable prediction of the effects of specific policies under consideration. It would have been inappropriate to attempt to use it to make granular decisions about restrictions. Epi-Macro modelling was used as background and to help build an overall understanding of the interlinkages between the virus and the economy and the relative risks from different NPIs, alongside many other sources of information. We did not rely on it to make granular decisions about imposing or easing specific NPIs at specific times.

50. We faced severe time and resource restraints given the speed at which economic analysis had to be conducted and support schemes designed. We had to make efficient choices about what analysis would best inform decision-making and invest our resources in those. We could have consulted external experts undertaking epi-macro modelling at greater length. However, we found other forms of economic analysis and modelling and diverse stakeholder engagement more useful for the specific decisions the government needed to take. Data analysis of the current and evolving circumstances proved to be the most informative input in understanding economic impacts because of the speed with which circumstances and the relationships between variables were changing. Testing policy ideas with external experts and key stakeholders was invaluable in the design of support schemes. If we had had more time and capacity available, in my view, that would have been best spent gathering more information from these sources to understand further how economic agents were responding to and planned to respond to changes in restrictions and support policies.

UK Government structures and information sharing

51. I was responsible for overseeing the economic analysis undertaken by HM Treasury. This was part of the overall analysis and advice provided to HM Treasury ministers alongside analysis on business impacts, public service impacts, spending costs, educational impacts, international experience etc. I did not take any steps to limit the sharing of analysis relevant to core decision-making, including with the Cabinet Office and core decision-makers. Whilst I cannot comment on behalf of the Chancellor, or other HM Treasury officials, I am not aware of anyone else taking such steps. The economic analysis and modelling undertaken by HM Treasury was shared with the Covid-19 Taskforce alongside other analysis conducted by HM Treasury. The interaction between the Covid-19 Taskforce and HM Treasury was led by the Strategy Planning and Budget group in HM Treasury. As stated above, analysis packs were produced jointly between HM Treasury and the Economic and Domestic Secretariat in the Cabinet Office. It was the responsibility of the Cabinet Office through the Covid-19

taskforce to synthesise HM Treasury's economic advice, SAGE scientific advice and other advice concerning social impacts relating to Covid-19.

52. I was involved in some of the ways in which HM Treasury's analysis was shared within HM Treasury and across the government during the pandemic period. The frequency and scope of the information shared both within HM Treasury and across the government changed through the pandemic as circumstances changed. Initially, daily updates of the latest economic data and analysis were produced and circulated within HM Treasury, including to the Chancellor. From April to July 2020, the daily update was a longer document. Daily updates became more concise after July 2020 and continued until March 2021. A more detailed economic and fiscal document was produced and circulated within HM Treasury, including to the Chancellor from June 2020. This started with a weekly frequency but was reduced to every two and then every three weeks until it ended in summer 2022. Prior to the pandemic, HM Treasury circulated weekly economic data and analysis within the department and to the Cabinet Office, No.10 and BEIS every Friday. This continued during and after the pandemic.

53. Meetings to brief the Prime Minister on the economy also took place starting in June 2020, the frequency changing throughout the pandemic. I believe they were roughly weekly until March 2021, when they became monthly, finally ending in May 2022. Usually, the Chancellor would also attend these meetings alongside others from No10, Cabinet Office, HM Treasury and BEIS. The Cabinet Office produced a dashboard to brief the Prime Minister at these meetings, with input from HM Treasury and often BEIS.

54. Decisions as to what information government departments publish are taken by ministers. HM Treasury analysis was published during the pandemic, for example, as part of the road map [CL/4/ INQ000114431].

55. HM Treasury did not produce academic-style papers to be discussed at regular structured meetings in the way that SAGE did. We focused our resources on undertaking analysis that best informed decision-making in the fast-changing circumstances. Many academics did publish valuable papers, for example, Besley and Stern (September 2020) on the Economics of Lockdown, and these were important inputs into our analysis [CL/5/INQ000000000].

56. I was not an attendee at the fifty-eighth SAGE meeting on Covid-19 held on 21 September 2020, nor was I consulted on the minutes. As such, I do not know what the author intended by the reference to work being undertaken by HM Treasury under the auspices of the Chief

Economist. As described above, HM Treasury undertook extensive economic analysis, which fed into advice alongside analysis of other factors such as business impacts, costs, public service impacts and inequality.

57. There had been some interest expressed externally in establishing an economic equivalent of SAGE. This being one of a number of options for example as is reflected in an email which I have seen and that I sent by way of an informal read-out to colleagues following a seminar on 5 June 2020 [CL/6/INQ000000000]. I am not aware that it was ever pursued or formally considered within the government or put forward as a formal proposal, nor am I aware of any "HM Treasury" view being given.

58. The pre-existing formal structures and processes used for economic advice and decision making in government provide many of the same functions as SAGE provides for scientific advice and decision making. HM Treasury brings together statistics, forecasts, modelling, and analysis by the ONS, OBR and Bank of England, all of which are independent and who engage regularly with the wider economic community. As stated above, we extensively used input from these organisations throughout the pandemic.

59. HM Treasury used a wide range of statistics produced by the ONS to inform its economic analysis and advice to the Chancellor to inform core decision making. This included:

- Regular macroeconomic statistics such as total economic output (GDP) utilising its first, second and final estimates; labour market statistics - including unemployment, economic activity and vacancies; inflation and price indices; and trade and balance of payments data.
- Disaggregated data such as gross value added (GVA) using sectoral and regional breakdowns.
- Surveys the ONS started to provide data to better understand Covid, especially the Business Conditions Survey and the Covid Infections Survey.

These were used alongside other statistical sources such as the Decision Makers Panel, Purchasing Managers Index, as well the newer data sources discussed in paragraph 14 above.

60. We also considered how best to further engage with the economic academic community to ensure we were benefitting from the full range of analysis and viewpoints that could

be relevant. We used the RES partnership supplemented with further input and advice on specific issues as was helpful. I recall speaking to the then Chief Scientific Advisor about engaging with academics. Professor Sir Nick Stern had approached him to discuss how he and others in the economics community could help. I spoke to Professor Sir Nick and others about how we could best benefit from his and others' expertise, and he was instrumental in forming the engagement with the RES.

Observations and reflections

61. As referred to in paragraph 30 above, in June 2022, I gave a speech to King's College, University of London [CL/7/INQ000088016]. This was intended as an accurate but concise overview of the overall impact of Covid-19 on the economy, the economic analysis and modelling undertaken by HM Treasury, the design of the policy response and some of the potential long-term economic effects.

62. In considering what worked well during this period, I would identify the speed with which the economic analysis adapted to the changing circumstances faced by decision-makers. For example, the analytical focus rapidly shifted from the macro impact of the slowdown in the Chinese economy to the sectoral and labour supply consequences of a lockdown. Data, obtained at speed and with wide scope, was used to increase our understanding of the economic impacts. An increasingly wide range of data sources and analytical and modelling techniques were used to build an overall picture of what was happening. This reduced the risks associated with over-reliance on specific data sources, techniques, or models. Another positive was the sharing of emerging information and analysis and, in some cases, resources, across the public sector, specifically between the ONS, HM Treasury, OBR and Bank of England.

63. The economic analysis produced by HM Treasury provided the basis from which the economic support packages were designed. It was used to identify the types of support, the speed and the level of support necessary for employees, the self-employed and businesses, as well as the support targeted by sector or geography. There is always room for improvement, particularly with hindsight. However, the support packages we designed did succeed in preventing extensive job losses, protecting incomes and preventing widespread business failures despite the unprecedented size and scope of the economic shock.

64. The economic analysis and modelling faced challenges fundamentally due to the speed, scale and scope of the pandemic. Much was done to try to address these uncertainties. In particular, we used a wide range of data sources, different analytical approaches and types

of models and continually updated our approach. Despite this, the uncertainties remained extremely high. The scale of the immediate economic impact, the need for rapid decision-making, the extreme uncertainty, and the constraints on resources and time inevitably meant that our analysis focused on the immediate effects on people, businesses and the economy overall. We knew there would likely be long-term economic impacts from Covid-19, and we designed economic support with that in mind. However, it was intrinsically challenging to evaluate the potential scale of these and assess how those longer-term impacts should shape the shorter-term policy design. The degree of uncertainty, novelty and complexity involved meant that we had to present ministers with realistic analysis recognising its limitations and with appropriate caveats. I am confident that the advice provided by HM Treasury to the Chancellor about the impacts of the virus, restrictions and economic support measures was the best synthesis of the information and analysis available under the circumstances we faced.

65. As described in paragraph 5 above, I participated as a panel member in two reviews during the pandemic led by the Cabinet Office, which in my view, were an effective way to bring together consideration of the scientific, economic and wider impacts of the specific issues. The Cabinet Office throughout provided an effective secretariat and synthesised the information, analysis, and inputs into reports to the Prime Minister and other senior decision-makers.

Communications

66. I was not part of any WhatsApp groups relevant to the Covid-19 response. I did not use informal or private communications to liaise directly with key decision-makers about the UK Government's response to Covid-19.

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.

Signed: Personal Data

Dated: 23 August 2023