

Anticipated joint venture between Liberty Global Plc and Telefónica S.A.

Summary of provisional findings

Notified: 14 April 2021

Introduction

1. The Competition and Markets Authority (CMA) has provisionally found that the anticipated joint venture (JV) between Liberty Global plc (Liberty Global) and Telefónica S.A. (Telefónica) to merge their operating businesses in the United Kingdom (UK), that is Virgin Media Inc. (Virgin) and O2 Holdings Limited (O2) respectively (the Proposed Merger), is not expected to result in a substantial lessening of competition (SLC) within any market or markets in the United Kingdom, including as a result of vertical effects in the supply of:
 - (a) Wholesale leased lines to mobile network operators (MNOs), at each of the access and aggregation layers on a local basis and
 - (b) Wholesale mobile services to mobile virtual network operators (MVNOs) in the UK.
2. We invite any parties to make representations to us on these provisional findings by no later than 17.00hrs BST on 5 May 2021. Parties should refer to the notice of provisional findings for details of how to do this.

Background

The reference

3. On 11 December 2020, the CMA, in exercise of its duty under section 33(1) of the Enterprise Act 2002 (the Act), referred the Proposed Merger for further investigation and report by a group of CMA panel members (the Inquiry Group).
4. In exercise of its duty under section 36(1) of the Act, the CMA must decide:

- (a) whether arrangements are in progress or in contemplation which, if carried into effect, will result in the creation of a relevant merger situation (RMS); and
 - (b) if so, whether the creation of that RMS may be expected to result in a SLC within any market or markets in the UK for goods or services.
- 5. We are required to prepare and publish a final report by 27 May 2021.

Industry background

Fixed communications networks

- 6. Fixed communications networks provide retail services including telephony and broadband access and wholesale services including leased lines and mobile backhaul.
- 7. At both the retail and wholesale level, traffic on fixed networks is growing, driven by growing consumption of data on retail broadband services and by wholesale demand for networks for mobile and other uses. In contrast, use of fixed networks for telephony has been declining.
- 8. Mobile backhaul uses fibre leased lines to connect an MNO's radio base station to its core network nodes. MNOs can self-supply their own backhaul or can source wholesale leased lines from providers such as Openreach, Virgin or CityFibre.
- 9. Mobile backhaul can be provided using 'active' leased lines, or 'passive' leased lines:
 - (a) Active leased lines (optical access and Ethernet products) are where the physical line is supplied with electronic equipment. The provider installs and uses its own electronic equipment at the ends of the leased line and configures this to meet the needs of the MNO.
 - (b) Passive leased lines are also commonly referred to as 'dark fibre'. These involve the supply of unlit fibre to the MNO which then installs and manages its own electronic equipment at both ends of the leased line.
- 10. BT has the largest fixed network with almost ubiquitous UK coverage. Most wholesale leased lines are supplied by Openreach, a wholly-owned subsidiary of BT, which is functionally and legally separate from it. Openreach is required by Ofcom regulation to offer wholesale services to other fixed telecom providers that do not have the same level of network coverage in the UK. BT also provides wholesale leased line services, including to MNOs, on a

commercial basis through its BT Enterprise business which use inputs from Openreach.

11. Virgin has the second largest fixed network in the UK, passing over 16 million UK households. Virgin provides mobile backhaul to MNOs in the form of either active leased lines and/or passive leased lines.

Mobile communications

12. There are four MNOs in the UK: O2, EE, Vodafone and Three. These supply around 90% of the retail mobile customers in the UK, with the remainder being supplied by around 150 MVNOs, including Virgin Mobile and Sky Mobile.
13. Ofcom research shows that demand for mobile data is increasing, while use of traditional mobile messaging and voice services are falling, as customers substitute instant messaging and video calling using apps on their smartphones.
14. All UK MNOs now offer 5G services. 5G is the latest generation of wireless technology and delivers faster and more reliable mobile services and may enable innovative new services in multiple industry sectors.

Fixed mobile convergence

15. Telecoms providers are beginning to bundle services including mobile, fixed voice, broadband and pay-TV for UK consumers. However, these are generally cross-sold and still provided under separate contracts.
16. Ofcom data indicates that in 2020 14% of fixed broadband subscribers had purchased their mobile and broadband services from the same provider.

The Parties

17. Liberty Global is an international video, broadband and communications company. It has consolidated operations in the UK, Ireland, Belgium, Switzerland, Poland and Slovakia and owns 50% of the Vodafone Ziggo joint venture in The Netherlands. Liberty Global is a publicly traded company, listed on the NASDAQ Global Select Market in the US.
18. In the UK, Liberty Global owns Virgin which provides retail fixed telecommunications services (specifically fixed voice and fixed broadband), pay-TV and business to business wholesale fixed telecommunications services. Virgin also provides retail mobile services with Virgin Mobile, an MVNO.

19. The turnover of Liberty Global in 2019 was approximately £10,766 million worldwide. Virgin had turnover of £4,766 million in the UK.
20. Telefónica is an international telecommunications company headquartered in Madrid, Spain. It is a publicly listed company on the Madrid, New York, Lima and Buenos Aires Stock Exchanges.
21. In the UK, Telefónica operates O2 as an MNO, offering retail mobile services to consumers and businesses as well as wholesale mobile services to MVNOs. O2 also provides certain fixed telephony retail services to business customers.
22. O2 owns giffgaff Limited (an MVNO) and has a shareholding in the Tesco Mobile joint venture (an MVNO); Cornerstone Telecommunications Infrastructure Ltd (CTIL), a mobile network-sharing joint venture with Vodafone; and Digital Mobile Spectrum Limited.
23. The turnover of Telefónica in 2019 was approximately £42,463 million worldwide and £6,234 million in the UK.

The transaction

24. On 7 May 2020, Telefónica and Liberty Global entered into a Contribution Agreement which proposed they would jointly acquire control of a newly incorporated entity, VMED O2 UK Ltd (the Merged Entity). Telefónica and Liberty Global would each be allotted 50% of the entire issued and outstanding share capital of VMED O2 UK Ltd.
25. Telefónica will contribute to the JV its wholly owned subsidiary O2 Holdings Limited and Liberty Global will contribute to the JV its wholly owned subsidiary Virgin Media Inc., which is the parent company of Virgin Media Ltd and Virgin Mobile Telecoms Ltd.
26. The other main businesses contributed by Telefónica will be:
 - (a) its shareholding in the Tesco Mobile joint venture, an MVNO;
 - (b) giffgaff Limited;
 - (c) CTIL. O2 has a 50% shareholding in CTIL which owns mobile passive infrastructure and operates a shared site portfolio such as base stations; and
 - (d) Digital Mobile Spectrum Limited, a joint venture in which O2, Three, EE and Vodafone each hold a 25% shareholding.

27. The Parties have agreed the form of the shareholders' agreement which governs how the JV will be owned, controlled, managed and financed, although this has not yet been executed.
28. The JV is intended to be jointly controlled by the Parties. The shareholders' agreement sets out that the board of directors of the JV will have eight directors: four each from Telefónica and Liberty Global.
29. The Parties have told us that the JV will be independently managed on an autonomous basis and will be provided with the necessary resources (finance, people and assets) to allow it to operate independently.

Provisional findings

Counterfactual

30. To assess the effects of a merger on competition, we consider the prospects for competition with the merger against what would have been the competitive situation without the merger. This is called the 'counterfactual'.
31. Submissions and internal documents from Liberty Global and Telefónica indicate that both Parties, prior to agreeing the Proposed Merger, were exploring alternative strategic options in order to develop their respective businesses. These included potential alternative combinations, acquisitions or other M&A activity. However, the evidence indicates that these were not sufficiently certain to form part of any counterfactual.
32. We have provisionally concluded that the 'prevailing conditions of competition', is the most likely counterfactual and, thus, the appropriate counterfactual to the Proposed Merger.

The relevant merger situation

33. We have provisionally found that O2 and Virgin will cease to be distinct from each other and that the Parties together will enjoy common ownership and control of the proposed JV. Each Party will acquire at least material influence in (and cease to be distinct from) the business being contributed by the other.
34. Our provisional view is therefore that arrangements are in progress or in contemplation which, if carried into effect, will result in two or more enterprises ceasing to be distinct and that the first limb of the RMS test is met.
35. We are satisfied that the combined UK turnover of the businesses that the Parties are transferring to the proposed JV exceeds £70 million and that the

turnover test is satisfied. We have also found that the Parties have overlapping activities in the UK, notably in respect of retail mobile services and that, in 2019, the Parties' combined share of the supply of these was in excess of 25%, with an increment.

36. We have, therefore, provisionally found that the Proposed Merger, if carried into effect, will result in the creation of an RMS.
37. As a result, we have considered whether the creation of that situation may be expected to result in an SLC within any market or markets in the UK for goods or services.

Introduction to the competitive assessment

38. Our investigation has focussed on two vertical theories of harm. Vertical effects may arise when a merger involves firms at different levels of the supply chain, for example, a merger between an upstream supplier and a downstream customer or a downstream competitor of the supplier's customers.
39. Our assessment of both of these theories of harm is framed by reference to the following three questions. To reach an SLC finding, all three must be answered in the affirmative.
 - (a) Ability: would the Merged Entity have the ability to harm rivals, through refusing to supply them, increasing prices or decreasing quality?
 - (b) Incentive: would it find it profitable to do so?
 - (c) Effect: would the effect of such action by the Merged Entity be sufficient to reduce competition to the extent that it gives rise to an SLC?
40. There are some horizontal overlaps between the Parties: in particular, the supply of retail mobile services to customers by O2 and Virgin. We noted in our Issues Statement that Virgin Mobile has a low and declining market share at retail level and that the Parties are not close competitors in retail mobile. We have not received submissions or evidence to contradict this initial view.
41. In addition, the Proposed Merger would create a horizontal overlap between the Parties' activities in supplying certain services to business customers, including fixed broadband, fixed voice services, business connectivity, internet hosting and certain IT services. We set out in our Issues Statement an initial view that the Proposed Merger would result in small increments and that the Parties do not compete closely in each of these areas. We have not received submissions or evidence to contradict this initial view.

Wholesale leased lines

Background

42. Virgin supplies wholesale leased lines to MNOs. MNOs use these leased lines as mobile backhaul, that is, to connect their radio base stations and their core network. Leased lines form part of the infrastructure required to provide mobile telecommunications services and are therefore an important input for MNOs.
43. An MNO's mobile backhaul consists of three segments:
 - (a) To connect mobile base stations (that is, the antennas and electronic equipment that establish connections to individual mobile devices) to local exchanges, (the access layer);
 - (b) to connect the different local exchanges to aggregating nodes, (the aggregation layer);
 - (c) to connect aggregating nodes to core nodes, ('core connections').
44. Our investigation has not considered core connections as we understand from the Parties that all MNOs and fixed network operators operate their own core network.
45. We have found that MNOs source mobile backhaul from multiple suppliers for both access and aggregation layers and use multiple different technologies and products.
46. MNOs told us that their choice of suppliers is determined by several factors, including the availability of their infrastructure, the type of leased line product they require and the cost and/or cost structure.
47. MNOs tend to agree long-term contracts for the supply of backhaul. Both Three and Vodafone have recent agreements with Virgin. Network sharing arrangements are also common: MBNL is a network sharing joint venture between BT and Three; Project Beacon is a network sharing arrangement between Vodafone and O2.
48. Openreach's position of incumbency and ubiquity has afforded it a large share of the supply of mobile backhaul in the UK. Ofcom imposes regulatory conditions on Openreach in terms of network access requirements, transparency requirements and some price caps on its provision of active leased lines.

49. Ofcom has also imposed a physical infrastructure access (PIA) remedy on Openreach which requires it, due to its strategic market position, to give other companies that wish to provide fibre networks access to its physical infrastructure.

Market definition

50. The focus of our analysis of the product market is on Virgin's provision of dark fibre for mobile backhaul. We therefore start our assessment of the product market using dark fibre as a focal product. This is the narrowest plausible candidate product market. We have assessed whether there are demand- or supply-side constraints that suggest a broader market.
51. In terms of substitutability of active products for dark fibre in mobile backhaul, we have found that MNOs could, from a technical perspective, substitute active leased lines for dark fibre in order to meet their mobile backhaul requirements. But we note that some MNOs have a clear preference for dark fibre over active products.
52. We have assessed the cost difference between dark fibre and active leased lines. While inherently imprecise, our comparison indicates that the alternative active product from Openreach can, in some instances, be more expensive than dark fibre from Virgin.
53. Our competitive assessment focuses on the extent to which active products are effective alternatives to dark fibre. The evidence suggests that users of dark fibre can switch to certain active products (and therefore that the market may be wider than dark fibre), but it does not enable us to define the precise boundaries of the market. Therefore, we have left the precise definition of the relevant market open as it does not affect the outcome of our competitive assessment.
54. Regarding the substitutability of wholesale leased lines used for other purposes with dark fibre mobile backhaul, we have considered supply-side substitutability and found that some providers submit that the products are interchangeable, while some MNOs state that this is not the case, due to their service-level requirements.
55. Our provisional view is that, while there is evidence that MNOs' requirements can differ from those of other users of leased lines, it is unclear to what extent these differences represent an obstacle to supply-side substitutability.
56. Therefore, wholesale leased lines supplied to MNOs as mobile backhaul and wholesale leased lines used for other purposes are likely to be part of the same product market. While our competitive assessment therefore takes into

account all suppliers of wholesale leased lines, we primarily consider those suppliers that currently supply mobile backhaul or have plans to start doing so.

57. We have considered the distinction between the access and aggregation layers. We note that Ofcom considers these to be separate product markets and also that they are not substitutable from a demand-side perspective. While the Parties have submitted that these form part of a single product market, submissions from third parties suggest that they are separate.
58. Our provisional view is that leased lines in the access layer and in the aggregation layer are not substitutable from a demand-side perspective or from a supply-side perspective.
59. In terms of geographic market, our provisional view is that for both the access layer and the aggregation layer, this is likely to be local.

Competitive assessment

60. Virgin is the second largest supplier of leased lines in the UK. The Proposed Merger would combine Virgin with O2, an MNO and the largest supplier of retail mobile services in the UK. The theory of harm that we have assessed is that as a result of the Proposed Merger, the Merged Entity could engage in an input foreclosure strategy to harm rival MNOs.
61. It could do this by, for example, increasing the price, decreasing the quality of its mobile backhaul offering (for example, by delaying dark fibre roll-out and/or by delaying repairs of connections) ('partial foreclosure'), or by withdrawal of supply ('total foreclosure').
62. We have focused our assessment on the access layer because the extent to which the Proposed Merger could affect mobile backhaul costs in the aggregation layer is limited.

Ability

63. In assessing the Merged Entity's ability to engage in input foreclosure, we have considered two main areas:
 - (a) Technical and cost differences between different types of leased lines and in particular the substitutability of Openreach's products for Virgin's dark fibre; and
 - (b) the cost of mobile backhaul as an input relative to MNOs' other costs.

64. In addition, we considered whether existing supply contracts between Virgin and MNOs and network sharing agreements between MNOs would provide protection from a potential foreclosure strategy.
65. Views on the benefits of dark fibre relative to active products are mixed: some third parties, including MNOs (and Ofcom) suggest that dark fibre has certain technical benefits as well as cost benefits, while the Parties and EE question some of these factors. We have found that some MNOs have a clear preference for dark fibre.
66. Overall, we have found that, while dark fibre has some technical differences compared to active products, they are substitutable from a technical perspective and it is generally cost that underlies MNOs' preferences. Thus, not having access to dark fibre is unlikely to constitute a significant disadvantage for MNOs from a technical perspective.
67. Comparing the costs of dark fibre and active products is inherently imprecise but our comparison indicates that the alternative active product from Openreach can, in some instances, be more expensive than dark fibre from Virgin.
68. We found that mobile backhaul accounts for a relatively small proportion of the overall costs that MNOs incur, that mobile backhaul supplied by Virgin represents an even smaller proportion, and that the proportion is likely to remain small going forward. For this reason, we found that the cost difference between dark fibre and active products is not large enough for the Merged Entity to be able to significantly increase MNOs' costs.
69. Overall, we have found that there are two overarching issues that limit the ability of the Merged Entity to harm rival MNOs through input foreclosure, namely:
 - (a) The ubiquitous presence of active leased lines supplied by Openreach and;
 - (b) The limited importance of MNOs' mobile backhaul costs in general and the limited exposure to Virgin specifically.
70. Virgin has contracts for mobile backhaul with Three, Vodafone and MBNL. O2 also has a network sharing agreement with Vodafone, Project Beacon.
71. We note that, in practice, contracts between providers and their customers may not completely remove a provider's ability to harm its downstream rivals, given that certain rivals might not be covered by these contracts, the contracts might not prevent all ways in which the competitiveness of rivals could be

harmed and the contracts may be of a limited duration. Moreover, over time contracts may be renegotiated or terminated, and firms may waive their rights to enforce any breaches in light of their overall bargaining position (reflecting the change in market structure brought about by a merger). In any event, contracts do not, of course, apply to potential market entrants.

72. However, we have found that in this case the Merged Entity's contractual obligations and its network sharing arrangements do provide some protections for MNOs that may limit the Merged Entity's ability to engage in certain foreclosure strategies, although the contracts are not determinative.
73. Our provisional finding is that the Merged Entity would not be able to engage in input foreclosure in the supply of mobile backhaul. We have also provisionally found that, going forward, the Merged Entity's ability to engage in an input foreclosure strategy will be limited.

Incentive

74. In order to assess the Merged Entity's incentive to engage in foreclosure, we have primarily relied on a quantitative analysis in the form of 'vertical arithmetic' to assess whether it would be profitable for the Merged Entity to withdraw supply of leased lines to MNOs altogether ('total foreclosure'); or to raise its prices ('partial foreclosure').
75. The vertical arithmetic analysis considers whether upstream losses for the Merged Entity from the loss of MNO revenue could be outweighed by downstream gains if MNOs were forced by foreclosure to increase their retail prices and their customers switched to the Merged Entity.
76. We have provisionally found that the increase in retail revenues, as a result of foreclosure, would not be sufficient to outweigh the loss of upstream revenues, so there would be no incentive for the Merged Entity to withdraw the supply of dark fibre.
77. Similarly, we have provisionally found that there would be no incentive for the Merged Entity to engage in partial foreclosure by increasing the price of dark fibre as this would lead to upstream losses that would not be outweighed by downstream gains.

Effect

78. Given our provisional views on the Merged Entity's ability and incentive to engage in an input foreclosure strategy in wholesale leased lines, we have not separately assessed the effect that this would have on competition.

Wholesale mobile

Background

79. O2 supplies wholesale mobile access services to MVNOs, for whom these services are an essential input, enabling them to compete in the retail mobile market.

Market definition

80. For wholesale mobile, we have assessed market definition in relation to:
- (a) The (upstream) supply of wholesale mobile services; and,
 - (b) the (downstream) supply of retail fixed-mobile bundles.

Wholesale mobile services

81. The Parties and third parties agreed with our proposed candidate market of the wholesale supply by MNOs to MVNOs of network access and call origination on public mobile telephone networks.
82. We considered whether network access and call origination could be treated as separate product markets but found that MNOs and MVNOs see them as part of the same market.
83. We therefore consider that the relevant product market is the wholesale supply of network access services and call origination services on public telephone networks.
84. Noting in particular that MNOs are regulated by Ofcom to operate in the UK, we consider that the geographic market is the UK.
85. Our provisional finding is that the appropriate market definition is the supply of wholesale mobile services in the UK.

Retail fixed-mobile bundles

86. We investigated the extent to which the supply of retail fixed-mobile bundles in the UK would be likely to form a single product market. We considered fixed-mobile bundles to comprise bundles supplied by the same provider but not necessarily under a single contract.
87. We found low take-up of fixed-mobile bundles in the UK relative to some European markets, and we found that customers can and would be likely to

respond to a price increase or reduction in quality of the mobile aspect of a fixed-mobile bundle by unbundling and purchasing mobile services separately.

88. Our provisional view is that there is not currently a separate market for fixed-mobile bundles. However we have considered the impact of future changes in the nature of demand for these services in our competitive assessment.

Competitive assessment

89. The Merged Entity will include the following:
- (a) O2, an MNO which supplies wholesale mobile services to four MVNOs: Sky Mobile, Lycamobile, Manx Telecom and Truphone.
 - (b) Virgin Mobile, an MVNO which is moving MNO host from EE to Vodafone.
90. Our assessment of the Proposed Merger focusses on the Merged Entity's ability and incentive to foreclose MVNOs. We have focussed particularly on the potential for input foreclosure of fixed-MVNOs because these are the segment of the market in which the Merged Entity's incentives may differ from O2's incentives prior to the Proposed Merger:
91. O2 currently supplies wholesale mobile services to fixed-MVNOs and it does not offer fixed-mobile bundles to retail customers to any significant extent, whereas post-merger, the Merged Entity will be able to offer fixed-mobile bundles and will therefore compete with fixed-MVNOs. These include Sky, which currently purchases wholesale mobile services from O2, and any other fixed-MVNOs that may wish to negotiate a wholesale mobile contract.
92. The Merged Entity would have the incentive to engage in a potential foreclosure strategy if a significant proportion of a fixed-MVNOs' customers switch their whole fixed-mobile bundle to the Merged Entity. If customers switch only the mobile component of their purchase, and retain their fixed services with their current provider, then the pre- and post-merger incentives of the Merged Entity would be broadly the same as the Merged Entity would only recapture mobile customers.
93. The Merged Entity could foreclose a fixed-MVNO by, for example, increasing the price or reducing the quality of its wholesale mobile services ('partial foreclosure'). Partial foreclosure could be directed towards existing fixed-MVNO customers within contract ('in-contract partial foreclosure') or towards potential fixed-MVNO customers by weaker bidding and offering worse terms at contract renewal or renegotiation.

94. The Merged Entity could also refuse to supply fixed-MVNOs altogether ('total foreclosure'), by not competing to supply them.

Ability

95. In assessing the Merged Entity's ability to harm rivals through foreclosure, we have considered the following areas.
- (a) We have assessed the extent to which there would be competitive constraints from other MNOs post-Merger. This is because, if rival fixed-MVNOs can obtain competitive terms from rival MNOs, the Merged Entity will be unable to engage in a foreclosure strategy. We considered a wide range of evidence including submissions from MNOs and MVNOs, internal documents relating to recent fixed-MVNO tender processes and MNO strategies, as well as evidence relating to switching costs for MVNOs, and on the capacity and quality of MNOs' networks. We have found that MNOs have a high level of participation in MVNO tenders and that all compete credibly in the supply of wholesale mobile services to MVNOs.
 - (b) We have considered the cost of wholesale mobile services relative to fixed-MVNOs' total costs. If the cost of wholesale mobile access accounts for only a small part of the total costs incurred, the Merged Entity will be less able to harm rival MVNOs' ability to compete for end customers in the retail market. We have found that the average cost of wholesale mobile services accounts for a low proportion of the average retail price of a fixed-mobile bundle. As such, the Merged Entity's ability to foreclose fixed-MVNOs would be limited.
 - (c) We have also assessed the ability of the Merged Entity to engage in partial foreclosure of Sky within its current contract with O2. As set out above, we generally do not consider that contracts can provide complete protection from foreclosure and this is also true in this case. However, having considered the details of the contract, we consider that the Merged Entity would have limited means to foreclose Sky within it.

96. We have provisionally found that the Merged Entity will not have the ability to foreclose, partially or totally, fixed-MVNOs.

Incentive

97. To assess the Merged Entity's incentive to engage in a foreclosure strategy, we have analysed the extent to which customers who buy fixed-mobile

bundles would switch all of these services when faced with a reduction in quality or a price increase of the mobile aspect of the bundle.

98. The Parties told us that the Merged Entity will not have the incentive to foreclose Sky, or any other fixed-MVNOs, because it is not plausible that sufficient numbers of Sky's fixed customers would switch these services to the Merged Entity in response to a price increase or quality reduction in the mobile aspect of their fixed-mobile bundle in order to make this strategy profitable.
99. We considered the ease and likelihood of unbundling and found that customers of fixed-MVNOs can unbundle because they tend to purchase fixed and mobile services under separate contracts and can easily switch the mobile aspect of their bundle.
100. Furthermore, we noted customer preferences for the fixed services provided by a fixed-MVNO, and the fact that the choice of fixed services is seen as a household decision whilst choice of mobile services is an individual decision, that may lead to unbundling.
101. As such, we have found that customers of fixed-MVNOs who experience a price increase or quality reduction in the mobile aspect of their fixed-mobile bundle are likely to retain their fixed services from the fixed-MVNO.
102. We considered whether the unbundling rate might change if take-up of fixed-mobile bundles increased, as expected by the Parties. The evidence indicates that the ease of unbundling is unlikely to significantly change in the foreseeable future. However, to the extent that providers introduce single contracts for fixed-mobile bundles or more compelling fixed-mobile propositions emerge, customers may be less likely to unbundle them.
103. However, our quantitative analysis suggests that foreclosure is not profitable even at very low levels of unbundling.
104. We also considered potential switching of Sky fixed-mobile customers to the Merged Entity. Estimates of this varied, but we concluded that diversion to the Merged Entity may be limited by the presence of other providers of fixed-mobile bundles and the fact that currently Virgin has a limited geographic footprint.
105. In relation to the future switching behaviour of customers, we found that the Merged Entity's incentive to foreclose in the future may increase with, for example, the expansion of Virgin's fixed network to cover a higher proportion of UK households, whilst other factors, such as the emergence of other providers of fixed-mobile bundles, may reduce its incentive.

106. We have also considered, via a vertical arithmetic exercise, whether it would be profitable for the Merged Entity to engage in a partial or total foreclosure strategy at contract renewal: that is, whether the upstream losses that it would incur in wholesale revenues could be outweighed by downstream gains in the retail market if MVNO customers switched to its services.
107. Even taking some uncertainties of the parameters into account, a range of scenarios showed that neither total foreclosure nor partial foreclosure of Sky would be profitable for the Merged Entry.
108. We have analysed the incentive of the Merged Entity to engage in partial foreclosure of Sky within its current contract. We considered that an in-contract foreclosure strategy may be more costly and provide less benefit to the Merged Entity, and we have therefore found that the Merged Entity would not find it profitable to foreclose Sky in-contract.
109. We have provisionally found that the Merged Entity will have no incentive to foreclose fixed-MVNOs.

Effect

110. Given our provisional views on the Merged Entity's ability and incentive to engage in a foreclosure strategy, we have not separately assessed the effect that a foreclosure strategy of the Merged Entity would have on competition.

Our provisional conclusion

111. We have provisionally found that the Proposed Merger may not be expected to result in any SLC within any market or markets in the United Kingdom.

Provisional decision

112. We have provisionally found that the Proposed Merger may not be expected to result in an SLC within any market or markets in the United Kingdom.
113. We invite any parties to make representations to us on these provisional findings by no later than 17.00hrs BST on 5 May 2021. Parties should refer to the notice of provisional findings for details of how to do this.
114. Please note that, due to the COVID-19 outbreak, the CMA's offices are closed. We are not able to accept delivery of any documents or correspondence by post or courier to our offices.