Explanatory Memorandum to the Regulatory Decision on the Broadband Markets Reviews

14 July 2010

TABLE OF CONTENTS

Page

CHAPTER I: INTRODUCTION

The Explanatory Memorandum summarises and evaluates the comments of the various members of the telecommunications industry in Jordan to the Broadband Markets Public Consultation document published by the TRC on 25 November 2009, including the further comments of operators made with respect to the initial set of comments lodged by operators.

Formal responses to the *Public Consultation Document* were received from Jordan Telecommunications Company (Orange Fixed), Umniah Mobile Company (Umniah) / Batelco Jordan, Jordan Mobile Telephone Services Company (Zain), Wi-Tribe Limited – Jordan (Wi-Tribe), Vtel Holdings Limited / Jordan (Vtel Jordan), Petra Jordanian Mobile Telecommunications Company (Orange Mobile) and Jordan Data Communications Company (Orange Internet). Formal comments on the above responses were, in turn, received from Orange Fixed and Umniah / Batelco Jordan.

Chapter II of this Explanatory Memorandum provides an overall summary of the comments received by all operators accompanied by TRC's reasoned response, broken down by reference to:

1. Market for Retail Broadband Internet Access provided at a fixed location (in the absence of any *ex ante* regulation);

2. Market for Wholesale Physical Network Infrastructure Access (including full and shared access to unbundled local loops);

3. Market for Wholesale Broadband Access; and

4. Market for Retail Broadband Internet Access provided at a fixed location with ex ante regulation of unbundled local loops and wholesale broadband access in place.

The TRC notes that respondents, in relation to a specific question, have also often commented on issues addressed in other questions. In the following, the TRC has maintained the original sequence of questions and provides its assessment of responses that have addressed the specific question.

CHAPTER II: OVERVIEW OF COMMENTS BY THE INDUSTRY

1. Market for Retail Broadband Internet Access provided at a fixed location (in the absence of any *ex ante* regulation)

Q1: Do you agree with the TRC's preliminary conclusions regarding the product and geographical definition of the relevant market for retail broadband Internet access?

Zain fully agreed with the TRC's preliminary conclusion that various forms of fixed broadband access should be grouped within the same market given their ability to place a competitive constraint on one another. Additionally, this respondent also agreed that Internet access over mobile connections should be excluded from the relevant market.

Wi-Tribe, **VTel Jordan** and **Orange Fixed** partly agreed and partly disagreed with the TRC's preliminary conclusion relating to the product market definition for retail broadband Internet access.

Various concerns were expressed regarding the exclusion of certain products from the relevant market. **Wi-Tribe** stated that given the similar capabilities of 3G Internet services, they should also fall within the relevant product market.

In addition, **Wi-Tribe** and **VTel Jordan** felt that it was incorrect for the TRC to exclude Internet access over leased lines from the market definition, since leased lines face the same type of competition as would be found in a broader market

There were concerns from **Orange Fixed** that the preliminary conclusions reached by the TRC are based more on assertions than on evidence. There was also a concern regarding the duration of carrying out the market review exercise given that the review period is already one year old and the market data may be outdated and might ignore future trends. In addition, Orange Fixed questioned the choice of a forward looking horizon of three years given the rapidly changing market dynamics and the rapid development of FBWA operators .The same respondent also considered the product market definition not to be in accordance with the principle of technological neutrality as the TRC has not included mobile broadband in the relevant market.

In relation to the geographic market definition, **Orange Fixed** claimed that there was no indication that the TRC had analysed the market from a geographical perspective. The respondent questioned the TRC's finding of a national market for retail broadband Internet access and called for a definition of sub-national markets.

Response of the TRC

The relevant product market for fixed broadband Internet access should be defined on a forward-looking basis and should be based on substitutability considerations. The TRC does not share the view that **Internet access provided over 3G mobile networks** should already be considered a full demand substitute over the lifetime of this market review. While the price may be comparable to fixed broadband Internet access, mobile broadband is still a nascent service with a limited number of subscribers. In this respect, the TRC notes that only mobile broadband Internet access *via* data cards/modems/keys can be regarded as a potential substitute for fixed broadband Internet access, while the use of mobile Internet over mobile handsets (i.e. I-Phones) cannot be regarded as functionally substitutable. Fixed broadband data rates are also prospectively higher (over the lifetime of this market review) than those offered over 3G mobile networks. Finally, many households prefer fixed broadband Internet access, because it is more convenient to use for the household as a whole and as it can be easily bundled with fixed telephony and prospectively IPTV. As a result of these reasons, a hypothetical monopolist test is likely to show that a 10% increase in the price of fixed broadband Internet access will not induce a sufficient number of fixed broadband Internet access users to switch to mobile broadband Internet access. The decision not to include mobile broadband within the same relevant product market as fixed broadband Internet access is also consistent with international best practice.[1]

Moreover, the TRC does not share the opinion that **Internet access over leased lines** should be included in the relevant product market. The TRC reiterates its view that there exist functional and price differences which preclude Internet access provided over leased lines and over ADSL connections being considered to be full demand substitutes. The combination of dedicated capacity connection and a higher cost technology results in the cost, and thus the price, of leased lines being substantially higher than that for ADSL access. The TRC also does not believe that leased lines are a supply-side substitute for ADSL access. Transforming leased lines into ADSL connections on a significant scale would not be economically feasible within a short period of time of up to one year (the relevant timeframe for establishing substitutability).

The TRC does not agree with **Orange Fixed**'s concerns that the preliminary conclusions reached are based on outdated **market data** and ignore future **trends**. Setting a cut-off date for data collection is a standard practice. A market review exercise cannot be under continuous and never ending updating. Internationally many market review exercises require 18 to 36 months to be completed. However, the TRC, has updated key figures with the most recently available data that became available after the completion of the Public Consultation Document.

With regards to future trends, the TRC in its market definition has expressly taken a forward-looking perspective over a forward looking horizon of three years. TRC notes that this is not an "arbitrary choice", but an internationally accepted standard period in jurisdictions applying market reviews. TRC will be monitoring market conditions during the review period and may carry out a new market review at an earlier date if market conditions change rapidly. The time period of the market review should not be perplexed with the time period for substitutability analysis: Two products are considered to be substitutes if customers or suppliers would prospectively be able to switch from one to another within a short period of up to a year.

With respect to the concerns raised by the same market player that the preliminary conclusions reached by the TRC are based more on assertions than on evidence, the TRC also

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[1] There is a single national regulator (Austria) which has defined a product market for broadband Internet access (for residential customers) that includes both fixed and mobile broadband. In that case, the rationale for doing so was based on similar prices and a substantial share of households that have already switched from fixed to mobile broadband.

notes that no specific data or evidence has been provided that would cast serious doubt over the results of any of the tests used by the TRC in the Public Consultation document. In this regard, the TRC notes that its use of the "SSNIP" or "hypothetical monopolist" test is consistent with international best practice. With regard to the one example given by the respondent, it is best practice around the world to include the broadband element of multi-play bundles in the retail market for fixed broadband Internet access.

The TRC rejects **Orange Fixed**'s view that it had not analysed the market from a geographic perspective. The TRC defined the geographic scope of the market based on the criterion of homogeneity/heterogeneity of competitive circumstances, which is the standard criterion of geographical market definition. In particular, the TRC does not agree with the view that it should have defined **sub-national markets** for retail broadband Internet access. Significant differences in competitive conditions across the national territory are a condition for the definition of sub-national markets. These should be reflected in significant differences in market shares, entry barriers, prices and quality of service. While it is clear that FBWA and FTTH operators do not have nationwide coverage, and thus have market presence only in the more densely populated areas, this has led Orange Fixed only to a limited differentiation of its pricing policy.

Contrary to what **Orange Fixed** seems to suggest, the UK is in no way comparable to Jordan, since it enjoys a significantly higher amount of competition at all levels. In addition, the respondent should take note of Ofcom's clarification of the retail market definition: "*..., it is not clear at this time whether there are indeed separate retail geographic markets in the UK (excluding the Hull area) on a forward-looking basis as a sizable majority of retail broadband customers are provided service by ISPs that are currently maintaining a national pricing policy. In any case, ..., for the purpose of this review it is not necessary for Ofcom to conclude on the precise scope of the retail geographic market. As such we propose there are two geographic markets: the UK excluding the Hull area and the Hull area, noting that there may be some localized variation within these two markets*."[2] Hence, Ofcom did not propose any further distinction of sub-national markets outside the Hull area (for historical reasons, BT is not present in the Hull area).

Moreover, the TRC notes that, even if it had defined two sub-national markets, this would not have resulted in a different outcome of the market review. Both sub-national markets in Jordan would have met the three-criteria test and be characterized by dominance. Clearly, competition problems are such they would have to be remedied by *ex ante* regulation whether with or without sub-national markets having been defined.

<u>In conclusion, the TRC maintains its view that the relevant market at the retail level is the market for the provision of broadband Internet access at fixed locations in Jordan. This retail market includes access (connection), on the one hand, and Internet connectivity, on the other, as two components of a single, integrated service. It comprises all fixed access technologies used in Jordan (*i.e.*, xDSL, FBWA, FTTH) at all broadband speeds and contention ratios offered. It also includes all fixed broadband Internet connections, whether offered on a stand-</u>

[2] Ofcom, Review of the wholesale broadband access markets: Consultation on market definition, market power determinations and remedies, Public Consultation Document, 23 March 2010.

alone basis or as part of multi-play bundles, and whether provided to residential or business users.

Q2: Do you agree with the TRC's preliminary conclusions that the three criteria are fulfilled for the market for retail broadband Internet access in the absence of any ex ante regulation at wholesale and retail level?

There was no unanimity in the approach expressed by members of the industry as regards the cumulative satisfaction of each of the three individual elements of the "three criteria" test. A few respondents agreed with the overarching conclusion of the TRC regarding this issue, but questioned some specific elements of the rationale provided by the TRC.

Wi-Tribe requested an explanation on the market definition, given that the competition seems to include ADSL, but not all DSL, such as SDSL and VDSL. This was of particular concern to this respondent given that the dominant player on the market is the only one which can currently offer SDSL and VDSL.

Zain believed that the TRC has understated the barriers to entry in the fixed broadband retail market.

Umniah agreed with the preliminary conclusions of the TRC regarding the satisfaction of the three criteria.

VTel Jordan partially agreed with the TRC's conclusion, stating that the first and the third limbs of the three criteria test had been fulfilled, but that the second limb of the test – the "dynamic trend towards competition" – had not been fulfilled. According to that operator, there has been an increased level of penetration of FTTH/B operators and FBWA (through the five existing WiMAX operators), which would decrease the dependency on DSL and enhance competition on the retail broadband Internet access market.

Orange Fixed did not agree that the three criteria test has been satisfied because it did not believe the product market has been properly defined by the TRC. That operator also stated that the TRC has not demonstrated that the PSTN customer base constitutes such a high and persistent barrier to entry, along with the other entry barriers cited. The same operator expressed the view that the number of operators in the market, including the five wireless licensees acknowledged by the T**RC**, contradicts the presence of entry barriers. The respondent also expressed the view that FBWA operators are comparable in terms of service portfolio provided to residential customers, degree of vertical integration, access to investment capital, and even superior in terms of customer base. The respondent also expressed the view that the TRC may be discriminating against it given certain arguments regarding the cross-selling of broadband services to its customer base. The respondent also argued that the TRC should not only have considered installed base but also net additional subscribers. In the view of **Orange Fixed** the TRC had assessed the existence of a dynamic trend towards effective competition using out of date market data. The same operator also argued that the TRC had not followed the *Competition Safeguard Instructions* which would require revenues to be used as the basis for determining market shares.

Response of the TRC

In relation to **Wi-Tribe**'s concern regarding the non-inclusion of **SDSL and VDSL** in the relevant product market, the TRC reiterates its position that it considers both technologies to form part of the relevant product market for fixed broadband Internet access at the retail level. VDSL, once it is launched, is likely to extend the chain of substitution on the demand side from ADSL into higher speeds, so that it will not be considered to form part of a separate relevant product market. This is also consistent with international best practice. As regards SDSL, the TRC believes that it is also within the same relevant product market as ADSL, because of the high level of supply-side substitutability which exists.

The TRC takes note of **Zain**'s assertion that **barriers to entry** in the retail market, in the absence of any *ex ante* regulation, are even higher than stated in the Consultation Document. The TRC notes that the amount of available spectrum limits the number of FBWA licenses that can be granted. Moreover, because of the large economies of scale inherent in fibre roll-out, the TRC does not expect new entry and/or more widespread deployment by FTTH operators over the lifetime of this market review. Given the absence of *ex ante* regulation of wholesale services assumed at this stage of the analysis, it is also unlikely that ULL or wholesale broadband access based competitors could emerge or remain in the market in the absence of wholesale regulation. Given these factors, barriers to entry must be regarded as high and prevailing over the lifetime of this market review.

The TRC does not agree with Orange Fixed's comment that the fulfilment of the three criteria cannot be safely concluded. If mobile broadband were included in the product market definition, the TRC would have to regard Orange Internet, Orange Fixed and Orange Mobile as part of the same economic entity and aggregate their market shares. The TRC notes that other mobile operators have not yet been licensed and are unlikely to change the competitive dynamics over the lifetime of this market review.

The TRC also does not agree that the definition of subnational markets would lead to different conclusions. In a situation, where the competition predominantly comes from a limited number of new entrants using FBWA, the existing PSTN customer base of Orange Fixed plays an important role. It is clear that the costs of FBWA operators of winning new customers for broadband services are higher than those of Orange Fixed in migrating existing PSTN customers to broadband. In relation to the argument suggesting the presence of FBWA operators contradicts the existence of entry barriers, TRC notes that, given the fact that the market has been defined to include both the xDSL and the FBWA connections, the criterion of entry barriers refers to the market as a whole. The TRC does not neglect that some of the FBWA operators are also vertically integrated, form part of firms with an international footprint and have access to capital markets. The fact, however, remains that those operators will have lower economies of scale and higher costs of customer acquisition than the economic entity formed by Orange Internet (which is part of the same economic entity as Orange Fixed). The TRC also notes that Orange Fixed had a high (notional) market share in excess of 90% in the relevant retail market (at the end of 2008) and that there is no clear trend towards effective competition over the period of the current market review. The TRC has also considered net additions of subscribers in its forward looking analysis, as suggested by the respondent. It should, however, be noted that, as FWBA operators are increasing market share from very low initial levels, it is clear that their share of net additions can be substantially higher than Orange Internet's share. While FBWA operators may increase their market share over the lifetime of this market review, it is very unlikely that they could achieve a level that would render the market structure competitive. The TRC's most recent evidence on market shares affirms this conclusion.

In relation to **Orange Fixed**'s comment about the use of market shares, the TRC expressly noted already in the Consultation Document that, in the present context, a meaningful market share can only be estimated by reference to subscriber numbers. The reason is that the relevant market is a notional market for (bundled) retail broadband Internet access, while the current revenue figures relate to a mixture of bundled and unbundled broadband Internet access, which cannot be simply aggregated for the purpose of the present market review. This is why the TRC relied upon subscriber numbers as the more appropriate measure of market share.

In relation to the **cumulative fulfilment of the three criteria** for the retail market for broadband Internet access, the TRC notes that the three-criteria test is performed under the assumption that no *ex ante* regulation is in place, neither at the retail level nor at the level of related wholesale markets (*i.e.*, wholesale physical network infrastructure access, wholesale broadband access). As noted above, market entry barriers remain, even though some new entry of FBWA operators has taken place. When carrying out the three-criteria test, the TRC does not neglect the recent uptake of services provided by these FBWA operators, but, as has been set out in the Consultation Document, the TRC believes that market entry of FBWA operators alone is unlikely to be capable of driving the market towards effective competition over the lifetime of this market review. The TRC has taken note of the increase in market share of FBWA operators that occurred after the completion of the Public Consultation document, but notes that this is an increase from an initial very low share of less than 10%. In the TRC's view, driving the market towards effective competition does require the market entry and expansion of operators based on the availability of unbundled local loops and wholesale broadband access options. The TRC therefore does not agree with the view of two respondents that the second criterion of the three-criteria test has been fulfilled solely because there is market entry of a limited number of FBWA operators..

In relation to **Orange Fixed**'s view that the TRC has not followed the *Competition Safeguards Instructions*, the TRC notes that, at this stage of the analysis, the issue that is being addressed is not one of dominance. Rather, the question is whether the market for retail broadband Internet access, in the absence of any *ex ante* regulation either at the wholesale or retail levels, is characterised by competition problems that warrant regulatory intervention. As has been detailed in the *White Paper*, the resolution of this issue is to be judged by reference to the three-criteria test, which the TRC has applied.

In conclusion, TRC maintains its view that, in the absence of any *ex ante* regulation being adopted at the wholesale and/or retail levels, the three criteria relied upon to justify *ex ante* regulatory intervention have been cumulatively fulfilled in relation to the market for retail broadband Internet access. Consideration must therefore be given to the imposition of appropriate *ex ante* regulations.

2. Market for Wholesale Physical Network Infrastructure Access (including full and shared access to unbundled local loops)

Q3: Do you agree with the TRC's preliminary conclusions regarding the product and geographic definition of the relevant market for wholesale physical network infrastructure access (including full and shared access to unbundled local loops)?

Wi-Tribe fully agreed with the conclusions submitted by the TRC.

The majority of the respondents partially agreed with the TRC's overall conclusion, but disagreed with the specific exclusion of certain products from the relevant market definition.

Umniah did not agree with the proposal to exclude FTTH from the market definition.

Orange Fixed disagreed with the conclusion that the self-supply of FBWA infrastructure should be excluded from the market for wholesale physical network infrastructure access. According to that operator, the TRC did not provide any evidence in support of its application of the SSNIP test, nor did the TRC justify its argument that FBWA is not substitutable. In its evaluation of the response of **Orange Fixed**, **Umniah** disagreed with the assertion that FBWA (including the self-supply of FBWA) should be included in all retail and wholesale markets.

Vtel Jordan expressed concerns regarding the regulation of shared access. It took the view that shared access should not be regulated due to technical issues such as interference and the high cost of investment required to use the high frequency band. According to this operator, the complications created by shared access and the splitting of services provided over the fixed wire lines between voice and data will create conflicts for customers, who will then be billed and maintained by two operators.

According to **Zain** the market definition should be defined on a technology neutral basis, as is the usual practice in many EU countries. **Orange Fixed,** in response to **Zain,** commented on the need for the market to be defined on a technology neutral basis and to therefore include FBWA and FTTX. The operator considered this view as being consistent with its own, in that an FBWA licensee's market power should be assessed.

VTel Jordan did not agree with the exclusion of associated facilities and services such as collocation, cooling, power, *etc*., in the relevant market definition. **Orange Fixed,** in response to **Vtel Jordan,** disagreed with the comment that associated facilities and services should be included in the product market definition. It saw the associated facilities and services as elements of the remedy that the TRC might wish to impose in conjunction with LLU, but not as part of the defined service itself.

Orange Fixed questioned the definition of a national market for wholesale physical infrastructure access and claimed that there are sub-national markets. The same operator believed that the UK has set a precedent for defining geographic broadband markets and that the situation in Jordan is directly analogous to Ofcom's analysis in the UK.

Response of the TRC

The TRC does not agree with **Umniah**'s view that **FTTH** already would need to be included within the relevant product market for wholesale physical network infrastructure access. While FTTH could potentially be unbundled (in particular, in the case of point-to-point fibre), it would be premature to reflect this possibility already in the current market review. The amount of FTTH currently deployed in Jordan and its further uptake over the lifetime of this market review is *de minimis* and, in any event, would not change the outcome of the market review even if it were included in the relevant market definition.

In relation to **FBWA**, where two respondents took diverging views on the exclusion of FBWA from the relevant market definition, the TRC reiterates its opinion that FBWA should not form part of the relevant product market. The reasons (clearly outlined in the Consultation Document) are as follows: First, FBWA networks cannot be unbundled (at the level of the subscriber, in the way that local copper loops can), since spectrum used for providing broadband services is shared between users. Thus, there cannot be any substitution at the wholesale level. Second, the amount of retail market substitution of FBWA for ADSL, resulting from a (hypothetical) price increase of unbundled local loops, is too week to justify the inclusion of FBWA within the same relevant product market as unbundled local loops. More specifically, the share of unbundled local loops in the overall cost of ADSL broadband Internet access is below 50%, and shares of costs of this order of magnitude typically result in the dilution of any indirect pricing constraint from retail market substitution on unbundled local loops. Consequently, it is very unlikely that FBWA could exert a stronger competitive pricing constraint on unbundled local loops, and the self-supply of FBWA should not be included in the same product market as unbundled local loops. It is evident that retail market competition does not impose a strong competitive constraint on Orange Fixed. If this were the case, the competitive constraint would drive Orange Fixed to providing access to its unbundled local loops (which is clearly not the case).

The TRC believes that the **Orange Fixed**'s assertion that the UK situation is directly analogous to Jordan is based on a misunderstanding. First, as already noted in relation to question 1 above, Ofcom does not define sub-national retail markets where BT is active (i.e., outside the Hull area). Second, Ofcom also does not define sub-national markets for wholesale physical network infrastructure access where BT is active. Ofcom, thus arrives under the particular UK circumstances at the same geographical market definitions for retail fixed broadband Internet access and wholesale physical network infrastructure access as the TRC. Third, Ofcom defines sub-national markets for wholesale broadband access, an issue which is not considered in Question 3.

The TRC notes that the market definition which it has adopted is consistent with international best practice. The limitation of the relevant market to unbundled copper loops in no way reveals a lack of **technological neutrality** in the approach adopted by the TRC. Rather, the exclusion of FTTH and FBWA from the relevant product market occurs because theses technologies are not considered to be short-run substitutes for alternative operators intending to offer broadband Internet access to end-users. The TRC also notes that a narrow wholesale market for unbundled local loops (with FBWA excluded) is not inconsistent with the finding of a broader retail market (with both xDSL and FBWA included). Clearly, while FBWA is a demand substitute for xDLS at the retail level, it does not sufficiently constrain the provision of unbundled local loops at the wholesale level. The fact that Orange Fixed does not offer unbundled local loops in the absence of *ex ante* regulation is clear evidence to that effect.

The TRC does not agree with **Vtel Jordan**'s view that **shared access** should not be regulated due to certain technical and commercial issues (and, by implication, not be part of the relevant product market). The inclusion of both fully unbundled and shared access in the relevant product market is wholly consistent with international best practice. In fact, in many countries it has proved to be beneficial for competition to offer alternative operators the option to start with shared access before migrating later to fully unbundled access. In any event, it is up to each operator's own commercial decision as to which business model it wishes to use and which type of access it prefers to rely upon.

The TRC takes note of **Vtel Jordan**'s view that **associated facilities and services** should be included in the relevant product market definition. The TRC, however, believes that this issue is irrelevant when one takes into account the final set of remedies imposed on the dominant operator. In any event, the TRC proposed that access to associated facilities and services is to be imposed as a remedy, together with access to unbundled local loops, in order to address the various competition problems related do dominance in the market for wholesale physical network infrastructure access.

With regard to **geographic market definition**, the TRC reiterates its position that competitive conditions across the various regions of Jordan do not justify the identification of sub-national markets, particularly as Orange Fixed is the only operator currently capable of providing unbundled local loops in Jordan. While FWBA operators have expanded their network coverage, it is clear that they cannot be included in the market for wholesale physical network infrastructure access, as demonstrated above.

In conclusion, the TRC maintains its view that there is a relevant market for the provision of wholesale physical network infrastructure access (including full and shared access to unbundled local loops) in Jordan. The market includes the wholesale provision of full and shared access to unbundled local loops at Main Distribution Frames (and potentially Street Cabinets), and also includes the self-supply of copper loops. Associated facilities and services are not included in the relevant product market definition, but are considered to form part of the *ex ante* obligations imposed on the Dominant Operator.

Q4: Do you agree with the TRC's preliminary conclusions that the three criteria are fulfilled for the market for wholesale physical network infrastructure access (including full and shared access to unbundled local loops) and, thus, this market is susceptible to ex ante regulation?

Wi-Tribe, **Umniah**, **VTel Jordan** and **Zain** agreed with the preliminary conclusions of the TRC regarding the fulfillment of the three criteria in the market for wholesale physical network infrastructure access.

Orange Fixed disagreed with the preliminary conclusion that the three criteria have been satisfied cumulatively for the market for wholesale physical network infrastructure. That operator stated that the assertion of the existence of high and persistent barriers to entry is not supported by the facts. The same respondent also believes that the National Broadband Network may become a wholesale provider of access related services. The respondent also claimed that, based on a market definition excluding self-supply of FBWA, the TRC neglected the dynamic trend towards competition. The operator believed that, with the inclusion of self-supply of FBWA in the market assessment, it could be established that the market tends towards effective competition.

Response of the TRC

The TRC notes that all respondents, except one, agreed with its preliminary conclusions regarding the fulfilment of the three-criteria test in relation to the market for wholesale physical network infrastructure access.

The TRC does not agree with **Orange Fixed**'s view that the existence of **high and persistent barriers to entry** and the lack of a dynamic trend towards competition is not supported by the facts. It is clear that Orange Fixed's legacy copper network cannot be easily replicated, which results in a high and persistent barrier to entry. Orange Fixed is thus the only potential provider of unbundled local loops at the present time. The TRC also reiterates that FBWA does not constitute a short-run demand substitute for unbundled copper loops; therefore, in its view, FBWA does not form part of the relevant product market. FBWA also does not impose a sufficiently strong indirect pricing constraint (refer above to the TRC assessment in relation to the responses to Question 3). The TRC is aware of MoICT rolling out a national broadband network in cooperation with NEPCO (National Electrical Power Company) in the context of its National Broadband program.[3] OLOs can lease dark fibre or cabling pipes of the NBN from the MoICT. Recently, Batelco, VTel and Damamax have made agreements with the MoICT for the utilisation of the National Broadband Network infrastructure (in the case of Batelco) and for the use of cabling pipes (in the case of VTel and Damamax).[4] However, the TRC does not believe that the National Broadband Network could provide a substitute to Orange Fixed's unbundled local loops within the lifetime of this review. The TRC also notes that its market definition does not include unbundled fibre given the current low number of residential connections and the novelty of fibre unbundling. In conclusion, the monopoly provisioning of unbundled local loops reflects absolute barriers to entry and an obvious lack of a **dynamic trend towards effective competition**.

<u>Consequently, the TRC confirms its view that the relevant market for wholesale physical network infrastructure access cumulatively fulfils the three criteria, and is thus a market susceptible to *ex ante* regulation.</u>

[3] The scope of this network is the connection of Universities, schools, government entities and medical entities.

[4] MoICT website, http://www.moict.gov.jo/en_index.aspx.

Q5: Do you agree with the TRC's preliminary conclusions that Orange Fixed has a dominant position in the market for wholesale physical network infrastructure access (including full and shared access to unbundled local loops)?

Wi-Tribe, **Umniah** and **Zain** agreed with the TRC's preliminary conclusion that Orange Fixed holds a dominant position in the market for wholesale physical network infrastructure access.

VTel Jordan only agreed that Orange Fixed holds a dominant position with respect to the copper-based fixed infrastructure.

Orange Fixed had various concerns against the TRC excluding self-supply of FBWA infrastructure from the relevant market. In the view of this respondent, each individual FBWA licensee should be considered as also possibly having market power. In the respondent's view, some of the FBWA operators were catching up in market share with Orange and were similar with regard to a large number of criteria cited (e.g. size, number of subscribers and network capacity, access to facilities required to provide broadband Internet access, technology, access to capital markets/financial resources, bundling of products and services, vertical integration, etc.). The respondent also claimed that Orange Fixed, in fact, is disadvantaged, because it serves high-cost areas and that this disadvantage will be aggravated if a universal service obligation with regard to broadband will be imposed on it. The respondent finally believes that there are no barriers to entry for FBWA operators and barriers to expansion are lower for FBWA operators. The respondent also claimed that Orange Fixed faces countervailing buyer power.

Response of the TRC

The TRC takes note of the fact that the majority of respondents agreed with the preliminary conclusion of the TRC that Orange Fixed holds a dominant position in the market for wholesale physical network infrastructure access. The TRC does not share the view of **Orange Fixed** that FBWA licensees, if they were to be included in the relevant market for wholesale physical network infrastructure access, could also be considered to be individually dominant. The TRC points out in this respect that the notion of **individual dominance**, as it is used for the purpose of market reviews, is rooted in competition theory and compatible with the notion of dominance of the *Competition Safeguards*. Individual dominance is defined as a position where a supplier can behave independently of other suppliers and customers, *e.g.*, raise price without having to fear that customers may switch to another supplier. Under such a scenario, it is logically excluded that two or more firms which are in the same relevant market can be considered to be behaving independently of each other, unless they can be considered to be "jointly" or "collectively" dominant (*i.e.*, they have a position where, together, they can act independently of other suppliers and customers; this could be the case if they tacitly collude with each other). In the present case, the market for wholesale physical infrastructure access only comprises a single operator, namely, Orange Fixed. The only relevant issue is therefore whether Orange Fixed has a position of individual dominance, which obviously is the case. The criteria cited by Orange Fixed play an important role in the assessment of the market for retail fixed broadband Internet access and in the market for wholesale broadband access, but are of lesser relevance with regard to the market for wholesale physical network infrastructure access, as Orange Fixed is the only potential provider of unbundled local loops.

In relation to the comment regarding the inclusion of **self-supply of FBWA** in the wholesale physical network infrastructure access market, TRC notes that even if one was to include the self supply of FBWA this would not alter the conclusion that Orange Fixed is dominant given its present overwhelming market share.

<u>To conclude, the TRC maintains its view that Orange Fixed holds a dominant position in the market for wholesale physical network infrastructure access comprising fully unbundled and shared access to local loops.</u>

Q6: Do you agree with the TRC's preliminary conclusions that the potential competition problems related to the dominant position of Orange Fixed include denial of access to unbundled local loops (and associated facilities and services), discrimination and excessive wholesale charges?

Wi-Tribe, **Zain**, **Umniah** and **VTel Jordan** agreed with the TRC's preliminary conclusion on the potential competition problems relating to the dominant position held by Orange Fixed. These competition problems include the denial of access to unbundled local loops, discriminatory treatment, and excessive wholesale charges.

Orange Fixed expressed concerns over the prejudicial tone of the TRC and "encouraged" the TRC to re-assess the market in accordance to principles espoused by the TRC in its *White Paper on the Market Review Process*.

Response of the TRC

The TRC notes that the majority of operators agreed with the TRC's preliminary conclusion regarding the range of potential competition problems related to the dominant position held by Orange Fixed. The TRC cannot accept **Orange Fixed**'s comment about a **"prejudicial tone"**, as the inherent nature of a finding of dominance is susceptible to lead to such kind of problems. In fact, given the lack of effective retail competition that is likely to exist in the absence of any wholesale access regulation, and the lack of alternatives in the market for wholesale physical network infrastructure access, a finding that potential competition problems are likely to arise in this market is almost self-evident.

The TRC has clearly laid out its **principles for carrying out market reviews**, including the assessment of dominance and the identification of potential competition problems related to dominance in its *White Paper on the Market Review Process.* The TRC has carefully applied these principles in its current review of broadband markets and therefore sees little utility in repeating this analysis as suggested by **Orange Fixed**.

<u>In conclusion, the TRC maintains its view that Orange Fixed has a position of dominance in the market for wholesale physical network infrastructure access comprising fully unbundled and shared access to local loops.</u>

Q7: Do you agree with the TRC's preliminary conclusions about the appropriate remedies to be imposed on Orange Fixed to deal with the competition problems indentified?

Wi-Tribe fully agreed unqualifiedly with the TRC's preliminary conclusions regarding appropriate remedies to be imposed on Orange Fixed in order to eliminate the potential competition problems identified during the market review.

The remaining respondents expressed some concerns regarding specific elements of the remedies package, generally requiring greater detail in the specification of the remedies prescribed, while one respondent disagreed with the remedies prescribed.

VTel Jordan partially agreed with the preliminary conclusions but commented that the TRC should only impose a full access obligation in relation to unbundled local loops, as opposed to the shared access model, due to technical problems and the increased CAPEX required for shared access, which will increase the costs of alternative operators and will decrease their ability to compete effectively. In addition, the respondent in question stated that there is no specific definition for the concept of a "reasonable request," which is the expression used to qualify the obligation to provide access to unbundled local loops ("upon a reasonable request").

Zain agreed with the proposed *ex ante* regulations to be imposed on Orange Fixed. However, the operator also suggested the imposition of a functional separation obligation on Orange Fixed, which the TRC did not propose, if the other remedies proposed were not successful. The operator also expressed concern over the access to unbundled local loop obligation, in relation to which past experience has demonstrated that all loopholes be fully closed for the remedy to be effective. The TRC should also address other issues such as migration questions, the losses or gains from the supplier-led process, competitors' access to local exchange facilities, and the LLU process in light of the need for number portability co-ordination. The non-discrimination remedy raised concerns, due to its broad wording in the *Competition Law* and the *Competition Safeguards*. Finally, the respondent in question agreed with the price control remedy but stated that the remedy needs to be set at a level so as not to deter efficient investment by alternative operators.

Umniah also agreed with the proposed *ex ante* regulation to be imposed on Orange Fixed, and called for a clear set of transfer rules for customers of Orange Fixed that would like to switch to an alternative operator. The respondent also disagreed with the TRC's imposed obligation on Orange Fixed that this operator adopts an interference management plan. Instead, the respondent suggested that interference management principles and approvals of specific technologies to be used on local loops and sub-loops should be discussed by a specific committee chaired by the TRC, and subject to the ultimate approval by the TRC. This respondent also suggested the inclusion of a migration obligation, and establishing an arrangement between the current wholesale offerings and local loop unbundling. In addition, co-mingling should be characterized as a primary regulatory obligation; otherwise, there would be a serious disincentive for competitors to invest in the use of unbundled local loops.

Both **Umniah** and **Zain** requested that the TRC look into imposing a functional separation obligation, as has been implemented in the UK. **Orange Fixed,** in response to **Umniah** and **Zain,** stated that the functional separation was implemented in the UK only as a measure of last resort, after lesser forms of *ex ante* remedies failed to produce satisfactory results. The operator expressed its belief that this would be an excessive remedy as a first attempt at delivering unbundled local loops. It went on to claim that the UK and Jordanian markets are different. It claimed that in the UK, there were said to be only two vertically integrated players covering 50% of the population, as opposed to the four to six vertically integrated players in the retail market in Jordan covering more than 60% of the population. Additionally, the operator did not agree with the suggestion of an interference management plan being subject to discussion and approval by the TRC.

Only **Orange Fixed** found the TRC's proposed remedies to be totally inappropriate in Jordan, for the following reasons: (1) there would already exist facilities-based competition from FBWA licensees; (2) the market would still be developing, and it would be too early to regulate the market; (3) additional regulation would result in over-regulation and damage to investment; (4) the TRC may impose a universal service obligation with regard to broadband. This respondent was also concerned about imposing the local loop unbundling obligation in areas where FBWA licensees operate, since it would be possible that the TRC's actions may prove to be counterproductive in those areas. Furthermore, the same respondent claimed that the imposition of local loop unbundling outside urban areas would serve no purpose due to a lack of demand. The respondent also argued that the requirement for sub-loop unbundling would be excessive and unreasonable for a market such as Jordan. The respondent further took the view that associated facilities should be limited to those directly required for collocation and not include an obligation to offer duct access and backhaul if alternative operators were unable to reach the relevant access sites. Moreover, the respondent took the view that the network requirements to avoid harmful interference should be imposed as well on all access seekers. In relation to the obligation to publish specified information on a website, the respondent took the view that the preparation of data for areas, where there is no demand, would be inefficient. The respondent also took the view that the charge for unbundled local loops should be geographically differentiated, since a geographically averaged cost based tariff would impart Orange Fixed's ability to compete with FBWA operators. Alternatively, the respondent asked for being compensated for the net cost of USO obligations.

Orange Fixed supported, that prior to proposing local loop unbundling, the TRC should have carried out a separate regulatory impact assessment exercise. The respondent argued that is the duty of the TRC to demonstrate that it has assessed the burdens which arise from its proposed remedies. Finally, the respondent raised concerns that new market reviews would not be undertaking in the proposed timescales.

Umniah took the view that the duct access obligation on Orange Fixed should be "substantially reinforced". **Orange Fixed,** in response to **Umniah**, did not agree with the call for the duct access obligation to be reinforced, and expressed its concerns regarding such a proposal, for two reasons: (1) The reinforcement of the obligation would result in the use of spare capacity otherwise available to Orange Fixed for network enhancement, thereby rendering any possible migration to fibre in the local loop more difficult and costly. Further regulatory obligations imposed in relation to the fixed broadband access market would therefore hinder future investment. The removal of spare capacity in the form of duct access would also require additional expenses when laying fibres, in the form of digging new trenches and installing new ducts. (2) The same operator also responded that it was not clear whether there is a significant demand for duct access.

Response of the TRC

The TRC does not share the view of VTel Jordan that remedies imposed by it should be limited to access to fully unbundled local loops. In fact, it is international best practice to impose **shared access**, together with fully unbundled access, and to leave it to alternative operators to select the form of access that is appropriate for their particular business models. The TRC also notes that, in many jurisdictions, alternative operators have first switched from wholesale broadband access to shared access, before migrating to fully unbundled access. Shared access, in these jurisdictions, has played the role of a distinct rung on the "ladder of investment".

In relation to another comment made by the same respondent, the TRC would like to point out that limiting access to **"reasonable requests"** is the approach used across most jurisdictions in order to qualify the scope of the access obligation. Where obligations are imposed on operators that require them to meet reasonable requests for access to and use of networks elements and associated facilities, requests should only be refused on the basis of objective criteria such as technical feasibility or the need to maintain network integrity. Where access is refused, the aggrieved party may submit the case to a dispute resolution procedure. Clear exceptions, where access to a particular unbundled local loop may not be capable of being provided, should also be specified in the Reference Offer for unbundled local loops, which is subject to prior approval by the TRC.

The TRC agrees with **Zain**'s comments on the problems posed by implementing local loop unbundling and its view that past experience has demonstrated that "all loopholes" need to be "fully closed" for the remedy to be effective. Moreover, as is also set out in the Consultation Document, the implementation of a **fully non-discriminatory process** of supplying unbundled local loops, whether provided to Orange Fixed's own retail arm or to an alternative operator, poses a particular challenge to regulators. The TRC therefore proposed a range of measures dedicated to ensure non-discrimination. The TRC will oblige Orange Fixed to provide the relevant information about the implementation of the obligation to the TRC, including regular updates on **Key Performance Indicators** (KPIs) relevant for the provision of unbundled local loops and associated facilities. Moreover, for the purpose of facilitating the information transfer to alternative operators and to the TRC, Orange Fixed shall implement a **Wholesale Customer Relations Management** ("WCRM") system for the provision of unbundled local loops to allow the TRC to monitor compliance with the non-discrimination obligation.

The TRC takes note of **Orange Fixed**'s comment that interference management principles and approvals of specific technologies to be used on local loops and sub-loops should be discussed by a specific committee chaired by the TRC, and subject to the ultimate approval of the TRC. The TRC will further assess the need to make such an **Interference Management Plan** subject to discussion and approval by the TRC. In any event, the efficient use of the TRC's dispute settlement powers in relation to regulatory obligations imposed under the market review process might be capable of yielding similar results. The TRC agrees that the network requirements to avoid harmful interference should be imposed also on all access seekers. If an alternative operator equipment is not compatible with the frequency management then the operator shall not be allowed to install its equipment.

The TRC agrees with **Zain**'s suggestion that there should be a **migration** obligation facilitating an alternative operator's migration between different forms of access. The

Consultation Document explicitly proposes obligations to provide migration between different access options, namely, between shared access and full access, and between wholesale broadband access and access to unbundled local loops respectively.

The TRC takes note of the same respondent's view that **co-mingling** should be characterised as a primary regulatory obligation. As set out in the Consultation Document, the TRC takes the view that Orange Fixed should provide collocation, encompassing the functions of: dedicated collocation (custom-built room within the housing of an MDF); co-mingling (floor space) if dedicated collocation is not feasible; adjacent collocation (external space) where there is no available space within an access site building; and distant collocation if adjacent collocation is not feasible.

The TRC also takes note of **Umniah** and **Zain's** views (contested by **Orange Fixed**) that it should consider imposing a **functional separation** obligation, as has been implemented in the UK. In fact, the TRC has assessed the proportionality of an obligation to create a separate operational business unit for the access network (which would provide unbundled local loops, terminating segments of leased lines and possibly wholesale line rental on a non-discriminatory basis) under the present circumstances. In this regard, the TRC reiterates its view that the imposition of a functional separation obligation would not be proportional in the current circumstances. However, the TRC's conclusion is based on the expectation that Orange Fixed will cooperate fully in the non-discriminatory implementation of access to unbundled local loops.

In relation to **Orange Fixed**'s comments on the appropriateness of **wholesale remedies, including local loop unbundling**, the TRC would like to note that:

(1) The extent of facilities-based competition generated from FBWA licensees is not sufficient alone to drive the retail market for broadband Internet access towards effective competition, which means that at least local loop unbundling is therefore required.

(2) While it is correct to observe that the market for retail broadband Internet access is still developing in Jordan, this would not justify regulatory forbearance on the part of the TRC. A lack of regulatory intervention would in all likelihood lead to a long-lasting dominant position of Orange Fixed, which would be even more difficult to address at a later point in time. The TRC also notes that the market for retail fixed broadband Internet access is no longer an emerging market, where regulatory forbearance may be justified.

(3) Given the range of potential competition problems identified, the TRC does not agree with the view that the remedies proposed will lead to "over-regulation" and cause damage to investment. The TRC also does not believe that local loop unbundling will deter FBWA licensees from making investments in their networks, nor does it consider that the only dimension of competition in Jordan should be between fully fledged alternative network providers. Rather, the TRC believes that setting the charges for access to unbundled local loops at a cost-based price will provide the right incentives for the efficient investment of alternative operators.

(4) The present market review does not address potential future changes of the universal service obligation. The TRC, however, would like to stress that any burden resulting

from the universal service obligation would be adequately dealt with under the universal service framework in place in Jordan.

In relation to **Orange Fixed**’s comment that imposition of local loop unbundling outside urban areas serves no purpose, the TRC notes that it should be up to alternative operators to decide where to pronounce a demand for unbundled local loops. Moreover, the number of MDFs, where alterative operators will demand unbundling, will grow over time as alternative operators are able to increase market share and find it profitable to migrate from wholesale broadband access to unbundled local loops.

While the TRC does not see a reason not to mandate local loop unbundling, it modifies its conclusion with regard to sub-loop unbundling. While alternative operators have already expressed a credible demand for access to fully unbundled local loops, this has not yet been established in relation to access to unbundled sub-loops. For this reason, the specific obligations (in particular, inclusion in a Reference Offer and setting of cost-based charges) are not as yet to be applied to access to the sub-loop. The TRC, however, notes that it may enact those obligations in due course if alternative operators can demonstrate that there is a demand for access to the unbundled sub-loop.

The TRC does not agree with **Orange Fixed**’s view that associated facilities should be limited to those directly required for collocation and not include an obligation to offer duct access and backhaul if alternative operators are unable to reach the relevant access sites. The obligation is necessary to allow alternative operators to make effective use of the unbundled local loop.

The TRC does not share the same respondent’s view that the obligation to publish specified information on a website should not relate to areas where there is no demand for local loop unbundling. The TRC is of the opinion that the respective information should be provided for the whole of Jordan, and allow any access seeker with a reasonable request to define its demand for unbundled local loops.

The TRC takes note of **Orange Fixed**’s view that the cost oriented tariffs for unbundled local loops should be geographically deaveraged. The TRC, however, notes that there is no precedent for geographically deaveraged charges for unbundled local loops in any other jurisdiction, some of which enjoy a substantially higher intensity of infrastructure competition than Jordan, and does not believe this would be appropriate in Jordan. If a future universal service obligation imposed a burden on Orange Fixed, this issue cannot be dealt with under the market review framework, but should be addressed under the universal service framework.

With respect to the view expressed by Orange Fixed in that the TRC has not engaged in a separate Regulatory Impact Analysis prior to proposing access at the local loop, the TRC notes that, historically, it has been not uncommon for regulators to carry out a separate Regulatory Impact Assessment exercise in order to justify the imposition of regulatory obligations outside the context of the Market Review process, and in order to minimise arbitrary regulatory interventions. However, once the market review framework came into effect, this introduced its own in-built Impact Analysis mechanism, based upon the application of the principle of proportionality and the clearing of a number of threshold issues in order to justify regulatory intervention. The conduct of such a process has been clearly explained in the White Paper itself. In its present market review, the TRC has thus clearly taken into account, consistent with Paragraph 33 of the *Government Policy*, of the requirement to publish ‘reasoned decisions’ that also provide “an assessment of the impact on affected parties of the resulting regulatory burdens”. It also takes into account Paragraph 47 of the

Policy, which envisages the application of proportionality test insofar as it is specified that remedies "should be no more burdensome than is required to ensure fair competition”.

To this end, it is irrefutable that the TRC has clearly implemented the qualitative dimensions of a regulatory impact analysis in its process of market review. This is exemplified in the following sequence of analytical steps undertaken by the TRC, namely: first, a defined market has to be found susceptible to ex ante regulation by its fulfilment of the 3-Criteria test; second, a particular operator who will be subject to the regulatory obligation must be found to be dominant (a strong test to fulfil) in this relevant market; third, once dominance is found to exist, the remedies imposed must target the particular competition problem(s) identified as a result of dominance. Moreover, the competition problem found should be addressed with the lightest possible remedy capable of addressing the competition problem identified. In other words, remedies that are in excess of what is required should not be applied as they will impose an unnecessary burden. Consequently, a full set of analytical filters/tests have to be fulfilled prior to the imposition of a new regulatory obligation, thus minimizing the scope of unnecessary and arbitrary regulatory intervention. As a result, TRC is confident that the market review mechanism and its commitment to the principle of proportionality ensure the application of a Regulatory Impact Analysis which is inherent in the market review process. This is also reflected in the fact that the market review process, which was formulated in the EU, was itself subject to a Regulatory Impact Analysis by the European Commission. Moreover, when applying their own respective regulatory Impact Analysis, the National Regulatory Authorities of the UK and Ireland were applying their own express national rules in parallel with their legal obligations under EU law. In doing so, they were obliged to act in a way which did not undermine the fundamental EU framework under which they were conducting their market reviews, which dictated that the measures adopted consistent with the market review mechanism not be subject to any additional Regulatory Impact Analysis (because of the doctrine of proportionality).

The TRC would also like to clarify the following in relation to the cost incurred by Orange Fixed when unbundling local loops. *First*, the unbundled loops are only provided upon the existence of an explicit demand at particular MDFs.

Second, it is true that the incumbent operator will incur some immediate costs resulting from the imposition of local loop unbundling. These costs, in particular, comprise the costs of extending Orange Fixed’s wholesale division to the sale of unbundled local loops, the costs of drafting a Reference Unbundling Offer (RUO), and the costs of developing a pricing model for ensuring cost-based charges. However, these costs are small in relation to the size and the financial strength of a typical incumbent such as Orange Fixed.

Third, when it comes to the business risks, which are associated with the provision of unbundled local loops to an OLO, the TRC notes that the incumbent has the possibility to control and minimise those risks to a large extent by demanding a bank guarantee from the OLO. Typically the terms and conditions require the OLO to provide bank guarantees in order to start business with Orange Fixed so as to ensure that the new entrant is a financially stable and viable business partner.

Finally, the TRC does not share **Orange Fixed**’s concern that market reviews will not take place in the proposed timescale. The TRC agrees with the respondent’s view that changing market conditions can require a new market review even before the standard three-year period, and it is committed to undertake new market reviews whenever the necessity occurs.

The TRC also takes note of **Umniah**'s view that the **duct access** obligation imposed on Orange Fixed should be "substantially reinforced", The TRC confirms its position that, in order to enable a user of unbundled local loops to provide retail services effectively, the local loop operator has to provide associated facilities and services. Such facilities and services also include duct access for backhaul. The TRC does not include these services in the definition of the relevant wholesale market, but imposes them as remedies to enable access seekers to effectively make use of the unbundled local loop. The TRC also believes that, on a forward-looking basis, the roll-out of Next Generation Access (NGA) networks may further increase the demand for duct access. Seen in this light, the TRC's view is that there is a future demand for duct access which should be met by Orange Fixed.

Given the present lack of transparency about ducts, their location and available space, the TRC is not in a position to comment upon the validity of **Orange Fixed**'s comment that providing duct access would curtail the availability of future fibre roll-out. Moreover, this scenario is inconsistent with the experience that has developed thus far in the European Union. Clearly, duct access is seen as essential to improving investment incentives and competition in NGA.

<u>In conclusion, the TRC maintains its view that the potential competition problems identified justify the imposition of a comprehensive set of available remedies including access to fully unbundled and shared access to local loops, transparency (including Reference Offer), non-discrimination, price control as well as cost accounting and accounting separation. However, in contrast to the Consultation document, the TRC now takes the view that the specific obligations (in particular, inclusion in a Reference Offer and setting of cost-based charges) are not as yet to be applied to access to the sub-loop.</u>

3. Market for Wholesale Broadband Access

Q8: Do you agree with the TRC's preliminary conclusions regarding the product and geographical definition of the relevant market for wholesale broadband access?

Wi-Tribe and **Zain** fully agreed with the TRC's preliminary conclusions regarding the product and geographic dimensions of the relevant market definitions for wholesale broadband access, while other respondents only partially agreed with the TRC's preliminary conclusions.

Umniah broadly agreed with the TRC's preliminary conclusions, but (erroneously) thought that the TRC excluded wholesale broadband access to FTTH connections. In addition, that respondent raised concerns over the lack of clarity as to the inclusion of xDSL technologies other than ADSL. **Orange Fixed** in a response to **Umniah**, expressed its concern that the inclusion of all xDSL technologies would be extending the definition of the relevant market into services that are not ordinarily considered as being Internet access.

Only **Orange Fixed** did not agree with TRC's preliminary conclusions regarding the definition of the relevant product market. That operator expressed its belief that bitstream and LLU form a continuous chain of substitution and should not be defined as different product markets. It further claimed that the adoption of a contrary approach would result in the over-regulation of broadband markets. **Umniah** responding to **Orange Fixed** commented that the matter has been considered before by every National Regulatory Authority and the European Commission, and none have arrived at the conclusion of **Orange Fixed**.

VTel Jordan did not agree with the exclusion of associated facilities and services from the relevant product market, since the services are vital for the provision of the wholesale broadband product. **Orange Fixed** responding **to VTel Jordan** disagreed with the inclusion of associated facilities and data links between an alternative operator's collocated node and the alternative operator's premises in the definition of the relevant wholesale market. The operator viewed these associated facilities and data links as elements of a remedy, which might be part of a different product market altogether.

Orange Fixed questioned the definition of a national market for wholesale broadband access and called for the definition of separate sub-national markets**.**

Response of the TRC

In relation to **Umniah**'s understanding that **FTTH** connections was excluded from the TRC's wholesale broadband access product market definition, the TRC reiterates that this form of wholesale broadband access was actually included in the relevant product market. The TRC's reasons for including FTTH in the product market definition were the following: first, FTTH operators can potentially provide wholesale broadband access to FTTH connections independently of the technology used; and second, the share of the costs of wholesale broadband access is well above 50% of the overall cost of the retail product, which creates a sufficiently strong indirect pricing constraint from retail market substitution between FTTH and xDSL.

Similarly, in relation to the same respondent's concerns over the lack of clarity as to the inclusion of xDSL technologies other than ADSL, the TRC reiterates that wholesale broadband access to **VDSL and SDLS** connections is included in the relevant market definition on a forward-looking basis. In this respect, the TRC does not share another operator's concern that the inclusion of all xDSL technologies would necessarily be extending the definition of the relevant market into services that are not ordinarily considered to constitute broadband Internet access. It is international best practice to include at least wholesale broadband access to VDSL connections within the same relevant product market as wholesale broadband access to ADSL connections, based on the finding of a chain of substitution on the demand side. The TRC, however, agrees with this respondent that, in the present situation, the objective of *ex ante* regulation is to primarily address competition problems in relation to broadband Internet access. The need of wholesale regulation to deal with competition problems on other markets (*e.g.*, the regulation of wholesale broadband access with multicast functionality to address the types of competition problems arising in audiovisual markets) would eventually need to be assessed in a separate market review.

The TRC also does not agree with **VTel Jordan**'s concern (itself contested by **Orange Fixed**) regarding the exclusion of **associated facilities and services** from the relevant product market. As noted above, the TRC expressly proposes to impose these services as a remedy to address Orange Fixed's position of dominance on the market for wholesale broadband access.

The TRC does not agree with the view of **Orange Fixed** that bitstream and **unbundled local loops** form a continuous chain of supply substitution and should be defined as being part of a single product market. The TRC has doubts about the short-run supply substitutability between both forms of access, and the operator in question has not provided evidence in support of its assertion. As discussed in the Public Consultation document, access to unbundled local loops is not a demand-side substitute for wholesale broadband access. Switching from wholesale broadband access to unbundled local loops (assuming that they are available) would require network build-out. While wholesale broadband access is supplied at higher points in the network (currently at a single national point of interconnection at Amman/Hashem), local loops are supplied at the MDF level. Additional costs incurred when substituting wholesale broadband access by unbundled local loops would include the cost of DSLAMs and the costs of the IP backbone network (if the alternative operator switched from wholesale broadband access at IP level directly to unbundled local loops). If an operator switched from wholesale broadband access at DSLAM level to unbundled local loops, additional costs incurred would comprise the costs of DSLAMs. Furthermore wholesale broadband access and access to unbundled local loops have **different functional characteristics** with full local loop unbundling enabling an OLO to have full control of the quality of the service provided. In this respect, as was also rightly noted by another respondent, the TRC is acting consistently with international best practice. In fact, there is no jurisdiction where a single integrated wholesale market for unbundled local loops and wholesale broadband access has been defined.

With regard to geographic market definition, the TRC does not share the view of **Orange Fixed** that its proposals fail to acknowledge **geographic variations** which exist in Jordan. While the TRC fully acknowledges the differences in competitive conditions between urban and rural areas, the TRC does not believe them to be sufficiently significant, at this stage in the development of broadband in Jordan, to justify the definition of sub-national markets at this point in time. The primary reason is that Orange Fixed currently enjoys very high market shares also in urban areas, where a number of alternative operators are present. Orange Fixed also applies only a limited degree of geographical price differentiation at the retail level, which in the TRC's view does not provide a sufficient justification for a finding of sub-national markets at the wholesale level. Indeed, there is little reason to believe that an alternative operator would not wish to obtain wholesale access on a national basis as a general commercial strategy, and especially when dealing with multi-site business customers, even if it is subject to more intense competitive pressure in certain urban areas.

<u>In conclusion, the TRC maintains its view that the relevant wholesale market is the market for the provision of wholesale broadband access in Jordan. This includes the wholesale provision of the access link and any backhaul to all feasible access points at all speeds and contention ratios. Besides wholesale broadband access to DSL connections, it also includes wholesale broadband access to FBWA connections, as well as the self-supply of xDSL, FBWA and FTTH operators.</u>

Q9: Do you agree with the TRC's preliminary conclusions that the three criteria are fulfilled for the market for wholesale broadband access and, thus, this market is susceptible to ex ante regulation?

Wi-Tribe, **Zain** and **VTel Jordan** agreed with the TRC's preliminary conclusions that the three criteria are fulfilled for the market for wholesale broadband access, thereby rendering the market susceptible to *ex ante* regulation.

Umniah also agreed with the overall conclusion, but qualified that agreement with its specific comments regarding the scope of the relevant product market identified as susceptible to *ex ante* regulation. This view was questioned by **Orange Fixed** which believed that the scope of the market should not be extended.

Orange Fixed did not agree with the TRC's preliminary conclusions regarding the fulfilment of the three criteria test, stating that the TRC's view of market power is historical and based on outdated data. Additionally, its view was that the TRC did not include any assessment of the market power of any of the other FBWA licensees in the retail market. Furthermore, this respondent rejected the TRC's conclusion regarding the existence of high and persistent barriers to entry and the lack of a dynamic trend towards competition and, especially given the ability of FBWA licensees enter the market successfully, and the forthcoming disruption that would be caused by mobile broadband services. **Orange Fixed** also argued that ex post inventions were likely to overcome the alleged problems if they arose.

Response of the TRC

The TRC takes note that the majority of respondents agreed with the TRC's preliminary conclusions that the three criteria are fulfilled for the market for wholesale broadband access.

The TRC does not agree with **Umniah**'s view on the scope of the market identified for ex ante regulation. In relation to this issue, the TRC believes that it is important to acknowledge that, in the broadband sector, there exists a range of retail markets, including retail markets for television and other video services, which may potentially require some form of regulatory intervention at the wholesale level. Such retail services provided over broadband networks are, however, still nascent at this point in time. The TRC believes that the major competition concern currently relates to the retail market for broadband Internet access and is based on the fact that, in the absence of *ex ante* regulation at the wholesale level, certain aspects of this retail market are likely to be characterised by competition concerns. Accordingly, the TRC reserves the right to assess other retail markets (and related wholesale markets) in the future, should competition problems arise.

The TRC does not agree with **Orange Fixed**'s concern that the three-criteria test is based on outdated **data** and does not take into consideration the recent uptake of FBWA operators. The TRC has expressly included FBWA in the relevant product market for wholesale broadband access, based on the competitive constraints resulting from potential supply substitution at the wholesale level and the indirect pricing constraint imposed by substitution between FBWA and ADSL at the retail level. Given the manner in which the market has been defined, the TRC has acknowledged that **new entry by FBWA operators** has been possible and that one of these operators even provides a form of bitstream access, although the provision is limited to an affiliated firm. The TRC also has taken account of the indirect pricing constraint that retail market competition might impose on Orange Fixed's wholesale broadband access offer. In this respect, the TRC has taken note of the recent growth in the retail customer base of FBWA. It is clear however that, at least for the current market review, barriers to entry continue to persist. First, limitations on available spectrum do not allow for further entry of FBWA operators. Second, while the entry of DSL operators using the unbundled local loop will become possible (as is assumed in the analysis of the wholesale broadband access market), local loop unbundling will take time. Third, any competitor in the market, whether FBWA or ULL-based, is also confronted with the fact that Orange Fixed has a large PSTN customer base which can relatively easily be migrated to broadband, whereas new entrants have high acquisition costs for winning new customers. In the TRC's view, therefore, the first criterion of the three-criteria test is fulfilled.

The large PSTN customer base which can be migrated to broadband services, the economies of scale in providing broadband Internet access and the reputation and brand recognition of Orange Fixed can also be regarded as barriers to expansion for FBWA and ULL operators. The market share of these operators may grow, but given the low initial level (less than 10%), it is unlikely that the market could already **tend towards effective competition** during the lifetime of this market review. Indeed new data that became available to the TRC after completion of the Public Consultation document indicate that the market share of Orange Fixed in the wholesale broadband access market has decreased from its very high level of more than 90%. The market share of Orange Fixed, however, remains substantially higher than that of any of its competitors, and is unlikely to decrease to a level that would reflect a competitive structure during the lifetime of this market review.

Finally, given the remedies required to deal with the potential competition problems encountered in the wholesale broadband access market, the TRC believes that ***ex post* intervention** alone would not be sufficient.

The TRC notes that identifying the market for wholesale broadband access as a market susceptible to *ex ante* regulation is also in compliance with international best practice. Countries where wholesale broadband access is not considered to be a candidate market for *ex ante* regulation are rare and usually characterised by a great degree of infrastructure competition between the incumbent operator and cable operators, with the incumbent operator usually having a market share below 50%. The national circumstances in Jordan are clearly not comparable to such a scenario.

<u>In conclusion, the TRC maintains its view that the relevant market for wholesale broadband access fulfils the three criteria test and, as such, is a market susceptible to *ex ante* regulation.</u>

Q10: Do you agree with the TRC's preliminary conclusions that Orange Fixed has a dominant position in the market for wholesale broadband access?

Wi-Tribe, **Zain**, **Umniah** and **VTel Jordan** agreed with the TRC's preliminary conclusions that Orange Fixed holds a dominant position in the market for wholesale broadband access.

Zain who agreed with the TRC's preliminary views also urged the TRC to reject arguments against finding Orange Fixed not dominant in the market, which rely on the precedent set in the UK. The operator stated that FBWA licensees collectively make up only about 10% of the relevant market and that there is no evidence that the market is now contestable. Furthermore, is the respondent noted that it is possible that Orange Fixed will act strategically to maintain barriers to entry.

Orange Fixed in a response to **Zain** expressed the view that the FBWA licensees should also be assessed by the TRC when determining the existence of dominance in the relevant product and geographic market.

Orange Fixed did not agree with the TRC's preliminary conclusions regarding dominance, stating that in areas where FBWA licensees operate, there is a *de facto* lack of barriers to entry, FBWA licensees are rapidly gaining market share and there is countervailing buyer power.

Additionally, **Orange Fixed** took the view that the TRC should have also assessed the market power of the FBWA licensees in the retail market.

Response of the TRC

The TRC takes note that the majority of the respondent operators have agreed with the TRC's preliminary conclusion that Orange Fixed holds a dominant position in the market for wholesale broadband access.

The TRC does not share the view of **Orange Fixed** that it is not dominant in this relevant market. The TRC notes that Orange Fixed's **market share**, despite the recent uptake of FBWA operators, is likely to remain well above the market share usually presumed to signify dominance. It is also unlikely that the market power of Orange Fixed is being eroded sufficiently by reduced **barriers to entry and expansion**, or through the existence of sufficient **countervailing buyer power**. With regard to the latter, the TRC does not believe that FBWA licensees exercise countervailing buyer power against Orange Fixed. As stated in the Public Consultation document, Orange provides one-way access in a quasi-monopoly situation, where access seekers are in no position to respond effectively to a denial of access, the practice of discrimination or to the charging of excessive tariffs. Thus, alternative operators cannot exercise countervailing buyer power to constrain the supply-side market power of Orange Fixed in the provision of wholesale broadband access.

The TRC also wishes to emphasize again that there cannot exist several positions of individual dominance on any given relevant market. Other operators cannot hold a position of individual dominance in the same relevant product market (at the same time) as Orange Fixed. It is logically exluded that more than one operator has *"sufficient impact on the market that it can control and affect the activity of the relevant market*" *(Competition Safeguards, Article 8(a)).* Other operators might in certain cases be found to be jointly dominant (practicing some kind of tacit collusion) together with Orange Fixed, but this is highly unlikely to be the case in the wholesale broadband access market.

<u>In conclusion, the TRC maintains its view that Orange Fixed holds a position of dominance in the market for wholesale broadband access.</u>

Q11: Do you agree with the TRC's preliminary conclusions that the potential competition problems related to the dominant position of Orange Fixed include the denial of wholesale broadband access (or at least some of the relevant wholesale broadband access options, and associated facilities and services), discrimination and excessive wholesale charges?

Wi-Tribe and **VTel Jordan** agreed with the TRC's preliminary conclusions regarding potential competition problems resulting from the dominant position held by Orange Fixed, such as the denial of wholesale broadband access, discriminatory practices, and excessive wholesale charges.

A few other respondents agreed with the TRC's preliminary conclusions, but also pointed out the ability of Orange Fixed to engage in a margin squeeze strategy on its downstream competitors due to its position in the markets for wholesale physical network infrastructure access, wholesale broadband access and retail broadband services (**Zain**). Additionally, **Umniah** commented upon that the TRC did not mention the unsuitability of current wholesale offers to enable competitors to replicate the bundles that Orange Fixed and its affiliates provide on the retail market.

Orange Fixed disagreed with the TRC's preliminary conclusions and expressed the view that the countervailing buyer power exerted by FBWA licensees constrained the pricing of wholesale broadband access products by Orange Fixed.

Orange Fixed also did not agree with the assertion of **Zain** that Orange Fixed will have the ability to engage in a margin squeeze strategy, since any attempt to significantly discriminate or institute a margin squeeze will result in damage to its underlying wholesale business. The likely result would be the loss of business to FBWA licensees, who are Orange Fixed's main competitors. Additionally, **Orange Fixed** noted that the imposition of asymmetric regulation which subjects Orange Fixed to wholesale price control will allegedly leave that operator and its wholesale customers unable to respond to possible aggressive pricing by FBWA licensees.

Response of the TRC

When commenting on potential competition problems, some respondents pointed out the ability of Orange Fixed to engage in a **margin squeeze** strategy; the economic incentive for such a practice was questioned by Orange Fixed itself. The TRC considers margin squeeze situations to constitute an important potential competition problem in the provision of broadband services, as has been illustrated by the many cases that have been decided in a large number of jurisdictions, and points out that the non-discrimination and the wholesale price control obligations have been crafted to address this potential problem.

The TRC cannot see how wholesale price controls can by themselves prevent the dominant operator from responding to "aggressive" pricing by FBWA licensees. Orange Fixed is not prevented from **reducing its retail prices**, as long as they are not anti-competitive, namely, do not result in predation or a margin squeeze.

In conclusion, the TRC maintains its position that there are potential competition problems related to dominance that need to be addressed by appropriate remedies.

Q12: Do you agree with the TRC's preliminary conclusions about the appropriate remedies to be imposed on Orange Fixed to deal with the competition problems identified?

Wi-Tribe, **VTel Jordan** and **Zain** agreed, or at least partially agreed, with the TRC's preliminary conclusions regarding the appropriate remedies to be imposed on Orange Fixed to address potential competition problems.

Umniah provided comments designed to strengthen the proposed remedies, calling for migration arrangements between the current wholesale offerings and genuine wholesale broadband access. In addition, according to that respondent, there should be clear transfer rules for customers which are currently controlled by the dominant operator, and the TRC should also introduce an *ex ante* margin squeeze test. Furthermore, the operator recommends to the TRC that Orange Fixed should be required to pre-notify the TRC and alternative operators of any initiatives to utilize alternative technologies, triggering an assessment by the TRC for the need of any further remedies. The respondent also referred to its call for a functional separation obligation as enacted in the UK, as previously stated in the response to Question 7.

Orange Fixed stated that it is unlikely there would be significant levels of demand for the third party provision of wholesale broadband services over a wholesale broadband access product. Furthermore, given the migration to Ethernet, access at intermediate points should not be mandated in the ATM network. The respondent also took the view that the high cost of DALAM access would be likely to render this option redundant at this stage, and that DSLAM access was rarely imposed in other jurisdictions. The respondent also argued that specific technology for the handover of backhaul traffic should not be mandated as long as adequate transport service is provided. Finally, Orange Fixed took the view that collocation of equipment for IPTV or IP telephony is and excessive and unnecessary requirement not justified by the current market review.

In addition, **Orange Fixed** in a response to **Umniah** disagreed with a remedy requiring Orange Fixed to pre-notify to the TRC and alternative operators of any introduction of alternative technologies. This approach, it is argued, would result in delays of the introduction of FTTH due to an investigation by the TRC. The same operator also repeated its views in connection with its response to Question 7, namely, that functional separation is an unnecessary remedy.

Orange Fixed, under question 6, **also** asked whether the TRC was re-imposing a remedy required in the Interconnection Instructions or introducing a new remedy.

Response of the TRC

The TRC notes that a majority of the respondents have agreed, or have at least partially agreed, with the TRC's preliminary conclusions regarding the appropriate remedies that should be adopted.

The TRC agrees with one operator's comments calling for **migration** arrangements between different wholesale offerings; the TRC's proposed obligation to provide wholesale broadband access upon reasonable request expressly includes such an obligation. The Consultation Document has expressly stated that Orange Fixed should provide the possibility of migration between access options, namely, between wholesale broadband access and access to unbundled local loops respectively. Of course, migration arrangements should also apply between different forms of wholesale broadband access. Moreover, the minimum list of items to be dealt with in the Reference Offer for wholesale broadband access also includes migration arrangements.

The TRC agrees with the concerns raised by various respondents in relation to possible **margin squeeze and bundling practices**. First, in a change to its preliminary view that margin squeezes should be predominantly dealt with by *ex post* interventions, the TRC now takes the view that a preliminary screening of tariff packages, whenever new products and prices are launched, is required. The TRC notes that the obligation to charge cost-based prices for wholesale broadband access reduces the potential for margin squeezes, but does not fully preclude them. Second, the TRC also sees the need to provide a stronger incentive on Orange Fixed to enable alternative operators to replicate Orange Internet's retail broadband access products through corresponding wholesale broadband access products. The TRC therefore defined two new wholesale obligations that will be included in Decision:

1. Orange Fixed shall not provide a new wholesale broadband access product to any affiliated or otherwise related operators at the retail level, including Orange Internet, unless it is **also made available to alternative operators,** in order to enable them to replicate Orange Internet's retail broadband Internet access products. By implication, this means that Orange Internet, which forms a single economic entity with Orange Fixed, shall not be able to launch a new retail fixed Internet access product until Orange Fixed has demonstrated to the TRC that it also provides the corresponding wholesale broadband access product to alternative operators. In order to enable the TRC to monitor compliance with this obligation, Orange Fixed shall notify to the TRC in advance the provision of new wholesale broadband access products to Orange Internet. In addition, Orange Fixed - through any affiliated or otherwise related operators at the retail level, including Orange Internet - shall notify the TRC of the launch of new retail broadband Internet access products, four weeks in advance of the introduction of any such products.

2. Orange Fixed (which forms a single economic entity with Orange Internet) shall **not apply a margin squeeze** on alternative operators which use wholesale broadband access to offer retail broadband Internet access services. To allow the TRC to monitor compliance with this obligation, Orange Fixed - through any affiliated or otherwise related operators at the retail level, including Orange Internet - shall notify the TRC of the tariffs to be charged for any new retail broadband Internet access products, as well as any changes or revisions in the tariffs charged for existing products, four weeks in advance of the introduction of any such new or revised tariffs. This obligation of advance tariff review is also without prejudice to the TRC being able to exercise its ex post powers to review margin squeeze allegations at any point in time in the future, should the circumstances warrant.

The TRC notes one particular operator's concern that Orange Fixed should be required to pre-notify any initiatives to utilize **alternative broadband technologies**, thereby triggering an assessment of the need for further remedies. The TRC, however, believes that the definition of the relevant product market, as well as the scope of the proposed remedies, is sufficiently broad to be able to deal with this concern. If Orange Fixed started to implement VDSL and SDSL, it would be obliged to extend its wholesale broadband access offer to VDSL and SDSL connections.

In relation to one particular operator's call for a **functional separation obligation**, as enacted in the UK, the TRC refers to its comments made in response to the observations relating to Question 7. The TRC also adds that, in the UK, the dividing line is drawn between the access business (unbundled local loops, wholesale line rental, terminating segments of leased lines) and other activities (wholesale broadband access, trunk segments of leased lines, wholesale call origination, retail services, *etc.*). The reason is that wholesale broadband access is not considered to be an absolute bottleneck and is at least potentially open to competitive provision, particularly if local loop unbundling is put in place. The vertical separation should thus not be between wholesale and retail, but rather between local access and the remaining activities.

The TRC does not share the view of one respondent that there is unlikely to be significant **levels of demand** for wholesale broadband access. Various alternative operators make use of the existing bitstream offer of Orange Fixed. In the Public Consultation process, some operators have also stressed their incentive to roll out their backbone network once lower level bitstream access becomes available. The TRC notes in this respect that the purchase of wholesale broadband access at the DSLAM level may only be a transitional move and that some alternative operators may finally want to switch to using unbundled local loops as this allows alternative operators the greatest degree of independence in differentiating their respective quality of service offerings from those of the fixed incumbent. Accordingly, in the TRC's opinion, Orange Fixed should offer wholesale broadband access at all feasible access points, and this includes handover at the DSLAM level and handover at BRAS level. In relation to handover at BRAS level, Orange should provide *national* BRAS connectivity (alternative operators can have a point of interconnection with Orange in order to cover all regions) and optional *regional* BRAS connectivity (alternative operators may have one point of interconnection per region coved by each BRAS).

The TRC agrees with **Orange Fixed** that collocation of equipment for IPTV or IP telephony is not imposed as a result of the current market review. The TRC notes that any obligations in relation to wholesale broadband access with multicast functionality for the provision of providing IPTV services would have to be assessed in a separate market review on broadcasting transmission markets. The TRC also notes that voice-over-broadband will be assessed as part of the fixed narrowband market review provided it can be considered to be part of the same relevant product market as narrowband calls.

In conclusion, the TRC maintains its view that, in order to address the competition problems related to dominance, Orange Fixed should be subject to a comprehensive set of remedies, including the provision of wholesale broadband access upon reasonable request (including access to associated facilities and services), transparency (including publication of a Reference Offer), non-discrimination, accounting separation, and price control and cost accounting obligations. The TRC also agrees with certain responses of operators that call for a tighter control of replicability and margin squeezes. Therefore, in addition to the remedies proposed in the Consultation Document, the TRC takes the view that the following two remedies shall be additionally imposed: (1) Orange Fixed shall not provide a new wholesale broadband access product to any affiliated or otherwise related operators at the retail level, including Orange Internet, unless it is also made available to alternative operators. (2) Orange Fixed (which forms a single economic entity with Orange Internet) shall not apply a margin squeeze on alternative operators which use wholesale broadband access to offer retail broadband Internet access services.

Q13: Do you agree with the TRC's preliminary conclusions that the current obligations of price control on retail DSL connections and price control of backhaul should be maintained for a transitory period until the obligations with regard to wholesale broadband access become fully implemented and effective? Do you believe that other transitional remedies are necessary?

Wi-Tribe, **Umniah** and **Zain** agreed with the TRC's preliminary conclusions that the current obligations of price control on retail DSL connections and the price control of backhaul should be maintained for a transitory period and that no other remedies would be needed for the transitional period.

VTel Jordan agreed with the TRC's preliminary conclusions regarding the current obligations on retail DSL connections, and also commented that transitional remedies are necessary until the majority of OLOs' customers are serviced through a bundled service.

Orange Fixed took the view that no other transitional remedies would be required beyond the transitory period, but raised the concern that the transitory period "becomes non-transitory, given the nature of the proposed remedies".

Orange Mobile held the view that the TRC should alter its criteria associated with transitional arrangements, in order to avoid over-regulating the fixed retail broadband Internet access market by maintaining retail price controls on ADSL services provided by the dominant operator and under-regulating the same market by failing to acknowledge the prospective market power of mobile licensees. The operator in question recommends that the TRC undertake a forward-looking analysis of market trends, evaluate the market power of other licensees, revise its remedies in the fixed retail broadband Internet access market, and allow Orange Fixed and Mobile to emulate bundled offers.

Response of the TRC

The majority of operators agreed with the TRC's preliminary conclusions that the current obligations of **price control for retail DSL connections and backhaul** should be maintained for a transitional period, and that no other remedies would be required for the transitional period. The TRC confirms that these remedies will continue to protect end-users that rely on the purchase of a broadband connection separate to the purchase of the Internet access service. Once 95% of alternative operators' customers have migrated to bundled broadband Internet access, the remedies in question will be no longer required, and therefore abandoned.

The TRC disagrees with the view of **Orange Mobile** that the proposed transitional remedies would lead to the "over-regulation" of the fixed retail broadband Internet access market. As noted, they are indispensable to protect end-users that continue to rely on the purchase of a broadband connection separate to their Internet access service. The TRC also disagrees with the same operator's view that the market power of other licensees in the retail market for broadband Internet access needs to be assessed.

<u>To conclude, the TRC maintains its view that, for a transitional period, Orange Fixed shall maintain its backhaul service, on the terms that are currently mandated and approved by the TRC. In addition, and for the same period, the obligation imposed on Orange Fixed to offer cost-based prices for ADSL connections shall also be maintained.</u>

4. Market for Retail Broadband Internet Access provided at a fixed location with *ex ante* regulation of unbundled local loops and wholesale broadband access in place

Q14: Do you agree with the TRC's preliminary conclusions that the market for retail broadband Internet access provided at a fixed location does not fulfill the three criteria test once ex ante regulation of unbundled local loops and wholesale broadband access becomes fully and effectively implemented and, as such, is a market which is not susceptible to ex ante regulation?

The majority of the respondents disagreed with the TRC's preliminary conclusion that the market for retail broadband Internet access provided at a fixed location does not fulfill the three criteria test and therefore means that the market is not susceptible to *ex ante* regulation. **Wi-Tribe** holds the view that Orange Fixed is dominating the retail market and that its monopoly position allows it to pass on the cost of building its access network to a captive customer base that has no other choice but to accept that cost.

VTel Jordan comments on the difficulties which Other Licensed Operators will have to enter the market. Removing the existing price controls for ADSL may decrease the margins available to Other Licensed Operators, thereby preventing them from entering the market if Orange reduces the margin between wholesale and retail to a percentage not attractive to Other Licensed Operators. **Umniah** disagrees with the TRC's preliminary conclusions, but only because it takes a different view on the scope of the relevant product market. This operator takes the view that the relevant market should be broader than is currently found to be the case, and not restricted to only fixed broadband *Internet* access .

The other respondents generally agree with the TRC's preliminary conclusions. **Zain** agrees with the TRC's conclusions, but comments that the TRC will need to closely monitor the dominant operator's behaviour in order to ensure that it is not exploiting its dominant position, such as engaging in predatory pricing/margin squeezing or anti-competitive bundling practices.

Orange Internet considers that the likelihood of the satisfaction of the conditions leading to the removal of *ex ante* regulations at the retail level is unlikely to occur. In its view, the TRC has set unrealistically high thresholds for the withdrawal of regulations to justify ongoing regulation.

Finally, **Orange Fixed** took the view that the TRC should seek to withdraw regulations rather than play the role of establishing proxy conditions for competition. In this regard, it is argued that the TRC should incorporate a sunset provision with respect to retail price controls in order to avoid over-regulation.

Wi-Tribe believed that retail regulation should be imposed in Jordan to set a floor on retail broadband rates so as to allow all (or certain) service providers to offer viable service offerings.

Orange Fixed, in response to **Zain's** call for the TRC to closely monitor the dominant operator to ensure that there is no exploitation of its dominant position, such as predatory pricing or anti-competitive bundling, regarded a margin squeeze as unlikely. As regards anti-competitive bundling practices, **Orange Fixed** pointed out that anti-competitive bundling practices would also be available to Zain and Umniah, which provide fixed broadband and mobile services. Additionally, Orange Fixed argued that it is structurally separated from Orange Mobile, and thus fulfils a condition that is not met by Zain or Umniah.

Response of the TRC

The majority of respondents disagreed with the TRC's preliminary conclusion that the market for retail broadband Internet access provided at a fixed location, in principle, should not be susceptible to *ex ante* regulation, and the TRC takes note of their concerns. The TRC notes that the wholesale access remedies selected encompass obligations that shall prevent the dominant operator from leveraging its dominance into the retail market for fixed broadband Internet access. To strengthen the wholesale remedies, the TRC has determined to include two additional remedies that are discussed in relation to Question 12 above: (1) an obligation on Orange Fixed to allow alternative operators to replicate retail broadband Internet access products of Orange Internet through the provision of corresponding wholesale broadband access products, and (2) an obligation on Orange Fixed and Orange Internet (which forms part of the same economic entity as Orange Fixed) not to apply a margin squeeze.

The TRC also notes that it will revisit the conclusion that the retail market for fixed broadband Internet access is not susceptible to *ex ante* regulation if the wholesale remedies (including the new ones to ensure replicablity and absence of margin squeezes) imposed by virtue of the Decision are not effectively implemented. The TRC takes the view that if, due to non-compliance of the dominant operator, wholesale remedies cannot be effectively implemented within twelve months from the publication of the Decision, the TRC will reassess the susceptibility to *ex ante* regulation of the retail market for fixed retail broadband Internet access and, if dominance can be found, introduce retail regulation.

The TRC does not agree with **Orange Fixed**'s view that FBWA operators would also be able to engage in anti-competitive strategies. FBWA operators do not enjoy a position of dominance either in the market for retail fixed broadband Internet access or in a related wholesale market; it is therefore excluded that such operators could resort to abusive behaviour. The TRC, however, recognises that anti-competitive bundling across platforms could take place if an operator holds a dominant position in a mobile market or markets. The TRC has considered the dynamics of mobile markets in a separate market review procedure (Consultation Document published on 22 January 2010) and has issued preliminary proposals as to how to address any competition problems identified on these markets.

The TRC does not share the view that additional retail regulation should be imposed to set a **floor price for retail broadband Internet charges** so as to allow service providers to offer viable service offerings. The TRC believes that, with wholesale regulation in place, the retail market for fixed broadband Internet access is likely to be effectively competitive or tend towards effective competition and, except for the transitional arrangements proposed, will not need to be subject to regulation. Price undercutting (together with innovation and service improvements) is the essence of competition and should not be diluted by regulatory intervention. The TRC, however, cannot exclude that, because of Orange Fixed's position of dominance in upstream markets for unbundled local loops and wholesale broadband access, margin squeezes might become a competitive concern.

The TRC does not agree with **Orange Internet**'s view that the threshold for the withdrawal of transitional regulations is too high (the obligations are proposed to be abandoned once more than 95% of alternative operators' customers are shown to be buying broadband Internet access as a bundled service). In fact, the TRC regards this threshold as indispensable to protect customers that continue to buy ADSL connections and Internet access separately. The provision ensures that such customers will be protected from excessive pricing for ADSL connections (through direct retail price controls) and Internet access (through the mandating the provision of backhaul to ISPs at cost-based rates). The TRC also notes that Orange Internet itself may provide incentives to both subscribers and wholesale access customers in order to migrate to bundled services (*i.e.*, the bundles for connection and Internet connectivity). Additional "sunset" clauses, in the TRC's view, are not required at this stage of the market review process.

<u>To conclude, the TRC maintains its view that, with the effective implementation of wholesale remedies, the retail market for (bundled) broadband Internet access will no longer fulfil the three-criteria test. The price control remedy proposed by the TRC to be maintained (cost-based prices for ADSL connections) is a transitional remedy that should protect end-users which continue to rely on the separate purchasing of an ADSL connection and Internet access.</u>

5. Other issues

Umniah wholly disagreed with the TRC's preliminary conclusion relating to the product market identified as susceptible to *ex ante* regulation. The operator in question suggested that the TRC should examine the fixed broadband market in its entirety and that the market identified should not be limited to fixed broadband Internet access. Due to the exclusion from the identified market of services such as IPTV or voice over broadband, the respondent believed that the TRC has failed to identify and address possible bottlenecks and dominance in other services enabled by, and bundled with, fixed broadband. Additionally, this respondent believes that the TRC has provided no justification for this exclusion within its Consultation Document.

Orange Fixed, in responding to **Umniah** expressly disagreed with this view. The operator in question stated that many of the products and services proposed to be included in the market definition are not necessarily products (such as Voice over Broadband and IPTV), but are instead technologies. It was then argued that these technologies are capable of delivering services in other markets, such as the telephony market or a TV market. Accordingly, it was proposed that the TRC should ignore the suggestion of broadening the market definition.

Wi-Tribe also commented that international benchmarking has shown that the cost of spectrum for WiMAX technology is too high relative to the value of the Jordanian market and prevents operators from effectively competing against other technologies which do not utilize the spectrum. If broadband penetration is to grow in Jordan, it is argued, the TRC should be encouraging the lower pricing of offerings. A lower spectrum fee based on international best practices would allow the operators to offer more competitive prices and to be able to effectively compete with other operators, thereby promoting the uptake of broadband services.

Orange Fixed and **Orange Mobile** provided their overall comments on the TRC's conclusions set forth in the Consultation Document. These operators expressed concerns that the Consultation Document relied upon out-of-date information, and there was also a lack of analysis and transparency. It was also stated that the TRC has not conducted a forward-looking analysis and did not analyze trends in penetration, market shares, revenues, the roll out of networks, or other relevant factors. In particular, it was argued that the TRC should assess the market power of FBWA licensees due to their range of opportunities to cover fixed and mobile broadband access during the review period. The operators in question also pointed to both Umniah and Zain (mobile licensees) as also having advantages of economies of scope in adjacent product markets which are not available to other operators. Concerns were also expressed regarding the proposed remedies, which would allegedly hamper the market's evolution towards effective competition, deter inward investment, and stifle innovation. In addition, the affiliated operators in question believe that the TRC's proposals fail to acknowledge the geographic variations which exist in Jordan.

Response of the TRC

The TRC does not share the view that a **broadening of the scope of the market review** would be appropriate. The TRC, however, acknowledges that, in the broadband sector, there exists a range of retail markets, which may potentially require some form of regulatory intervention, including retail markets for television and other video services. Such services provided over broadband networks are still, however, nascent at this point in time. The TRC believes that the major competition concern currently relates to the retail market for fixed broadband Internet access and is based on the fact that, in the absence of *ex ante* regulation at the wholesale level, certain aspects of this retail market are likely to be characterised by competition concerns. However, the TRC reserves the right to assess other retail markets (and related wholesale markets) in the future, should competition problems arise.

If respondents believe that certain other broadband markets (such as the markets for television and other video services) are characterised by serious competition concerns, the TRC would invite such views to be substantiated by evidence. To this end, the TRC notes that IPTV services provided over broadband networks are functionally similar to television services over terrestrial and satellite platforms and may not constitute a relevant market of their own accord. Similarly, voice services provided over broadband connections ("voice over broadband") are functionally similar to voice services provided over narrowband connections and, therefore, may form part of a single relevant product market for fixed voice services; this issue is addressed further in the TRC's forthcoming fixed narrowband markets review.

In relation to the **cost of WiMAX spectrum**, the TRC does not consider it appropriate to comment on these issues, as they are not subject to the present market review process.

The TRC disagrees with the view expressed by **Orange Fixed** and **Orange Mobile** that the Consultation Document relied upon out-of-date information and did not carry out a forward-looking assessment. Aside from historical volume and revenue data (based on the responses to the Operator Questionnaire) the TRC has also sought to factor into its analysis any observable trends regarding market developments. New data collected by the TRC after completion of the Public Consultation document do not put into question the TRC conclusions. While FBWA based operators have been able to achieve a larger share of net additions of subscribers, the market share of Orange Internet, respectively Orange Fixed, in the relevant retail and wholesale markets under consideration has not decreased to an extent that would require the TRC to revisit its conclusions. In any event, it needs to be remembered that the TRC must be able to rely on a complete set of **data** upon which to base its forward-looking analysis. By definition, that data will always be historical to some degree and will be based on harmonised Operator Questionnaires; if that were not the case, the market review process would be in a state of being constantly updated, at the expense of legal certainty to the whole industry.

The TRC is also aware of the fact that FBWA licensees, with affiliated companies active in the mobile market, enjoy economies of scope, which facilitate the bundling of broadband and mobile services. For the time being, however, and over the lifetime of the present market review, the TRC does not expect that FBWA operators could effectively constrain the market power of Orange Fixed in fixed broadband Internet access. Rather, the TRC adopts the position that local loop unbundling and wholesale broadband access are indispensable elements to drive the market towards effective competition.