REPUBLIC OF IRAQ

COMMUNICATIONS AND MEDIA COMMISSION

CONSULTATION DOCUMENT

MARKET REVIEWS

JUNE 2016

INTRODUCTION

The Communications and Media Commission should impose ex-ante regulation only on operators with significant market power. This means that CMC has first to perform market reviews and identify the operators with dominant position.

Therefore CMC has engaged a firm of consultants, WRAP International, to assist it with the market reviews. The consultants performed the market reviews and produced draft market review report. CMC wishes to obtain the views of interested individuals and organisations on the market reviews before they are approved and CMC imposes some regulations based on them.

CMC now invites the public, operators and other interested organisations to provide it with their answers to the consultation questions or other comments on the market reviews. Any answers or comments should be made in writing addressed to:

IRAQ – Baghdad
Al masbah – hay babel
District #: 929, Street #: 32, Building #: 18

Or electronically to;
consultation@cmc.iq
22/7/2016

Submissions may be in English or Arabic; dual-language submissions will be extremely helpful.

In the interests of transparency, CMC expects to publish submissions. Stakeholders should indicate clearly any part of their submission that they would not wish to be included in a published version, explaining why this part should be treated as confidential.

DRAFT MARKET REVIEW REPORT

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1.1 Market definition

Each market has two dimensions: products included in the market and geographic extent of the market.

1.1.1 Market definition - products

Products included in a single market are all telecommunication services which are substitutable, either by demand-side substitutability or supply-side substitutability.

Access to the public telecommunication network at a fixed location in Iraq can currently be provided using copper pairs, fibre, or WLL. From a customer perspective these products are substitutes, because they all enable the customer to use his fixed line for calls or access to the internet. Therefore all these products are included in this market.

We have assessed whether access to a mobile network also belongs to the same market.

For customers at home or at a place of business, access to a mobile network is a substitute for access to a fixed network, because both allow them to make and receive calls or to connect to internet. However while outside the home or business, access to a fixed network is not a substitute for access to a mobile network, because fixed networks do not allow calls or access to internet while on the move. Therefore, from the point of view of demand-side substitutability, access to mobile network does not belong to this market.

Fixed network operators cannot offer mobile services without significant investment in radio access network and associated construction delay. Mobile network operators cannot offer fixed services without significant investment in fixed access network and associated construction delay. Therefore access to fixed and mobile networks are not substitutes from the point of view of supply-side substitutability and access to mobile network does not belong to this market.

1.1.2 Market definition – geographic extent

Geographic areas where the conditions of competition are similar shall be included in one market.

Itisaluna, ITPC and Kalimat are licensed to operate in all of Iraq but they currently don’t operate in the KRG region. Fanoos operates in KRG region and in Kirkuk, Mosul, Diyala, Salladin. There are other telecom companies currently operating in the KRG region under the permission from the telecom communication authority or ministry in the KRG region and they are not regulated by the CMC. Therefore we divided the market for access to the public fixed telecommunication network into two geographic regions: KRG region and all of Iraq except KRG region. However we have not included the KRG region in this market review because we have requested data from the responsible telecom authority in the KRG region but to-date we did not receive any feedback so neither the CMC nor the consulting firm should be held responsible for this status.

1.2 Determination whether the market is susceptible to ex-ante regulation

The decision whether the market is susceptible to ex-ante regulation should be based on the three criteria test. If all of the following three criteria are met, the market is susceptible to ex-ante regulation. If at least one of the criteria is not met, the market is not susceptible to ex-ante regulation. The three criteria are:

- Presence of high and non-transitory barriers to entry
- Market does not tend towards effective competition within the relevant time horizon
- Insufficiency of competition law alone to adequately address the market failure(s).

1.2.1 Presence of high and non-transitory barriers to entry

Barriers to entry enable an operator which is active in the market to keep prices above costs without triggering new market entries from outside.

Structural barriers to entry mean that there are asymmetries between the established operators and new entrants which hinder market entry. Telecommunication networks have high fixed costs resulting in significant economies of scale and scope. This means that the established operators with high service volumes and broad portfolios of services have significantly lower unit costs than any new entrant. Such a situation makes it difficult for new operators to enter the market. In addition there are high sunk costs, which the new entrant has to pay before it can start offering services and which cannot be recovered if the market entry is not successful. Therefore we conclude that there are high and non-transitory structural barriers to entry.

Legal or regulatory barriers to entry are requirements set by the state or other public authorities which the new entrant has to comply with in order to be allowed to enter the market. To be able to offer public telecommunication services, each operator has to obtain a license. Currently ITPC is the only operator allowed to construct fixed access network using copper and fibre cables, is licensed to operate in all of Iraq but currently don't operate in the KRG region. At present, no other operator can acquire a license for this type of network. New WLL operators can acquire licenses from CMC, however these options are limited due to the available spectrum. Therefore we conclude that there are high and non-transitory legal and regulatory barriers to entry (even absolute barriers to entry in the case of fixed telecommunication networks using copper and fibre cables).

1.2.2 Market does not tend towards effective competition within the relevant time horizon

Competition between operators already active in the market (competition behind the barriers to entry) is the second criterion. Market share data show that ITPC is clearly the dominant fixed network operator in all of Iraq except KRG region. This situation has not changed over the years and is not expected to change in the near future. Therefore we conclude that the market does not tend towards effective competition within the relevant time horizon.

1.2.3 Insufficiency of competition law alone to adequately address the market failure(s)

Competition law reacts ex-post after anti-competitive behaviour is observed and imposes sanctions. It does not allow for ex-ante preventive measures. Therefore it cannot lower barriers to entry by obliging existing network operators to provide wholesale services to new entrants. It also cannot prevent excessive prices by setting pricing rules. Allowing pricing problems to arise and tackling them after they have already happened through ex-post competition law can lead to negative distortions of retail competition and consumer behaviour which can be difficult to remedy or reverse after the event. Therefore we conclude that competition law alone is not sufficient to adequately address the market failures.

1.2.4 Result of the three criteria test

As described above all three criteria are met and therefore the market is susceptible to ex-ante regulation.

1.3 Designation of operators with significant market power

Market share is the most important criterion to designate operators with significant market power. Market shares in all of Iraq except KRG region calculated based on the data submitted by the operators to CMC are as follows: ITPC 85%, Itisaluna 11%, Fanoos 3%, Kalimat 1%.

Market shares in KRG region could not be calculated. We have requested data from the responsible telecom authority in the KRG region but to-date we did not receive any feedback so neither the CMC nor the consulting firm should be held responsible for this status.

Market share of ITPC in all of Iraq except KRG region is above the 50% threshold which indicates significant market power. To be able to sufficiently assess the market position of ITPC we have also considered other factors which influence ITPC’s market power.

ITPC is the only operator which can build and operate fixed access networks using copper and fibre cables. This significantly strengthens its dominant position because all customers who prefer cable connections over WLL have to use the services of ITPC.

The market for access to the public telecommunication network at a fixed location is a mature market. ITPC keeps its large customer base from the past and for alternative operators it is difficult to attract customers from ITPC especially because ITPC as the largest operator enjoys significant economies of scale and scope, which makes it difficult for the other operators to compete on price.

The dominant position of ITPC could be limited if there were customers who bought a large share of the services supplied by ITPC, thus providing a significant portion of ITPC's revenues, and they were well informed of alternative operators supplying similar services, and they could migrate easily and without incurring significant costs to services supplied by other operators. However the market for access to the public telecommunication network at a fixed location is a retail market with a large number of small customers. None of these customers has countervailing buyer power strong enough to limit the significant market power of ITPC.

Therefore we conclude that ITPC is the operator with significant market power in the market for access to the public telecommunication network at a fixed location in all of Iraq except KRG region. It was not possible to designate the operator with significant market power in KRG region. We have requested data from the responsible telecom authority in the KRG region but to-date we did not receive any feedback so neither the CMC nor the consulting firm should be held responsible for this status.

1.4 Regulatory obligations imposed on operators with significant market power

Regulatory obligations imposed on operators with significant market power should address the potential competition problems.

The following obligations shall be imposed on ITPC as the operator with significant market power in the market for access to the public telecommunication network at a fixed location in all of Iraq except KRG region.

1.4.1 Obligations for access to and use of specific network facilities

ITPC is the only operator which can build and operate fixed access networks using copper and fibre cables. It is also the largest fixed line operator. This means that ITPC has control over infrastructure, which cannot be easily duplicated by other operators, and enjoys significant economies of scale and scope, which cannot be matched by other operators.

In order to overcome these competition problems, ITPC should enable the other operators to gain access to its network facilities in the form of wholesale rental services (for example unbundled local loop, bitstream service, co-location etc.)

In detail, the obligation for access to and use of specific network facilities means that ITPC should:

- interconnect networks or network facilities
- give other operators access to specified network elements and/or equipment

- negotiate in good faith with operators requesting access
- not withdraw access to facilities already granted
- provide specified services on a wholesale basis for resale by other operators
- grant open access to technical interfaces, protocols or other key technologies that are indispensable for the interoperability of services
- provide co-location or other forms of shared use of telecommunication infrastructure and associated facilities
- provide additional services for end-user interaction, including facilities for intelligent networks services
- provide access to operational support systems or similar software systems necessary to ensure fair competition in the provision of services.

The access to and use of specific network facilities as described above should be defined taking into account the following factors:

- the technical and economic viability of using or installing competing facilities
- the feasibility of providing the access proposed, in relation to the capacity available
- the initial investment by the facility owner, bearing in mind the risks involved in making the investment
- the need to safeguard competition in the long term.

ITPC should prepare a Reference Access Offer (RAO) defining the details of the offered wholesale services including technical specifications, ordering processes, quality of service standards, pricing and billing conditions, dispute resolution, contract conditions such as duration, cancellation etc.

1.4.2 Obligation not to unreasonably bundle

An operator with significant market power in one market has the incentive to expand its market power into other markets by bundling products. In order to prevent this, CMC should require ITPC not to unreasonably bundle products. This means that both retail customers (end users) and wholesale customers (other operators) must not be forced to use and pay for additional network facilities and services which they do not require. This obligation does not prevent ITPC from offering product bundles, but in addition ITPC has to enable its customers to purchase on a standalone basis any individual service included in any bundle without being required by contractual or non-contractual means to purchase another service or to pay for services or facilities which are not necessary for the provision of the requested individual standalone service.

1.4.3 Obligation of non-discrimination

When complying with the obligation for access to and use of specific network facilities as imposed above, ITPC has to provide services and information to all other operators under the same conditions and of the same quality as it provides for its own retail services or to its subsidiaries or partners.

1.4.4 Obligation of transparency

Obligation of transparency should enable monitoring of compliance with other obligations and should enable customers (both retail and wholesale) to make informed choices about the requested services. CMC may specify the information which ITPC has to make publicly accessible, such as:

- accounting information
- technical specifications
- network characteristics
- terms and conditions for supply and use of services
- prices of services.

As part of the obligation of transparency, ITPC will be required to publish its Reference Access Offer (RAO).

1.4.5 Obligation of price control

An operator with significant market power has the incentive to raise prices because there is no competitive pressure (for example from new entry or expansion of existing competitors) to prevent this. In addition it can use the excessive profit from the market where it has significant market power to cross-subsidize services in another market in order to expand its market power to the other market. Therefore CMC has to regulate the prices charged by operators with significant market power.

ITPC will be required to set prices based on costs including a reasonable rate of return on investment and has to be able to prove it to CMC. ITPC must submit the proposed prices of services and their justification to CMC at least 30 days before the publication of such prices, and CMC may, before or after the publication of the prices, require prices to be adjusted when it establishes that the prices are not cost based.

1.4.6 Obligation of cost accounting

In order to comply with the obligation of price control, ITPC must implement a cost accounting system which calculates unit costs of services including a reasonable rate of return on investment.

The system should allocate costs from the financial accounts of ITPC to the services (Top-Down Fully Allocated Costs). The allocation of costs to services has to follow these principles:

- Cost causality - costs shall be attributed to services in accordance with the activities which cause the costs to be incurred.
- Objectivity and non-discrimination - the attribution shall be objective and not intended to benefit any operator, service or network component.
- Consistency - the same methodology should be used over different periods.

- Transparency - the attribution methods used should be transparent and verifiable.
- Materiality - the use of a detailed causal allocation basis may not be necessary if the effect of the allocation is not material to the outcome.

The unit costs of all services should be calculated annually and submitted to CMC. The compliance of the operator's cost accounting system and its results with the methodology shall be verified by an independent auditor once a year.

1.4.7 Obligation of accounting separation

When imposed with the obligations for access to and use of specific network facilities and with the obligation of non-discrimination, ITPC has to demonstrate that it offers the wholesale services to other operators for the same prices as to its own divisions. ITPC will be required to separate the costs and revenues of the overall integrated company between network and retail functions as if these activities were carried out by legally independent companies. Such accounting separation makes internal transfer prices visible and enables detection of discrimination between internal provision (internal transfer prices) and external provision (wholesale prices).

Question 1: Do you agree that ITPC is the operator with significant market power in the market for access to the public telecommunication network at a fixed location in all of Iraq except KRG region? Do you agree with the regulatory obligations which shall be imposed on ITPC? If not, please provide reasons for your response and describe which operator(s) has in your opinion significant market power in the market and which obligations should be imposed on it.

2 Fixed telephony services

2.1 Market definition

Each market has two dimensions: products included in the market and geographic extent of the market.

2.1.1 Market definition - products

Products included in a single market are all telecommunication services which are substitutable, either by demand-side substitutability or supply-side substitutability.

Fixed telephony services include local, national and international calls from fixed phone lines. From a customer perspective these products are not substitutes. The customer wants to call either some local number, or some national number (including mobile phones) or some international number.

However these products belong to one market based on supply-side substitutability. A fixed telephony operator which offers one type of calls can very easily and with low investment start to offer also the other types of calls.

We have assessed whether VOIP calls also belong to this market. From a customer perspective VOIP calls can be considered a substitute to fixed calls. However as customers do not pay for VOIP calls but for the broadband services which they use to make the VOIP calls, VOIP calls themselves cannot be subject to tariff regulation.

Because VOIP calls represent a substitute to fixed calls, they can influence competition in the fixed telephony market. However in Iraq with low penetration of computers at home this influence is quite limited. In order to make the VOIP call, both parties have to have a computer with broadband connection at home, so even if the computer and broadband penetration would be 25%, the chance to make a VOIP call would be only 25%*25% which is 6.25%. In addition both computers would have to be turned on at the same time which further lowers the probability that you can reach the other party via a VOIP call. Therefore VOIP calls do not represent significant market share and will not be included in this market review.

We have also assessed whether mobile calls belong to the same market.

From the customer point of view mobile calls are considered a substitute to fixed calls, because they enable the customer the same functionality (to make calls while at home). However fixed calls are not a substitute to mobile calls, because fixed calls cannot be made while outside of the home. Therefore, from the point of view of demand-side substitutability, mobile calls do not belong to this market.

Fixed network operators cannot offer mobile services without significant investment in radio access network and associated construction delay. Mobile network operators cannot offer fixed services without significant investment into fixed access network and associated construction delay. Therefore fixed and mobile calls are not substitutes from the point of view of supply-side substitutability and mobile calls do not belong to this market.

2.1.2 Market definition – geographic extent

Geographic areas where the conditions of competition are similar shall be included in one market.

Itisaluna, ITPC and Kalimat are licensed to operate in all of Iraq but currently don’t operate in the KRG region. Fanoos operates in KRG region and in Kirkuk, Mosul, Diyala, Salladin. There are other telecom companies currently operating in the KRG region under the permission from the telecom communication authority or ministry in the KRG region and they are not regulated by the CMC. Therefore we divided the market for fixed telephony services into two geographic regions: KRG region and all of Iraq except KRG region. However we have not included the KRG region in this market review because we have requested data from the responsible telecom authority in the KRG region but to-date we did not receive any feedback so neither the CMC nor the consulting firm should be held responsible for this status.

2.2 Determination whether the market is susceptible to ex-ante regulation

The decision whether the market is susceptible to ex-ante regulation should be based on the three criteria test. If all of the following three criteria are met, the market is susceptible to ex-ante regulation. If at least one of the criteria is not met, the market is not susceptible to ex-ante regulation. The three criteria are:

- Presence of high and non-transitory barriers to entry
- Market does not tend towards effective competition within the relevant time horizon
- Insufficiency of competition law alone to adequately address the market failure(s).

2.2.1 Presence of high and non-transitory barriers to entry

Barriers to entry enable an operator which is active in the market to keep prices above costs without triggering new market entries from outside.

Structural barriers to entry mean that there are asymmetries between the established operators and new entrants which hinder market entry. Telecommunication networks have high fixed costs resulting in significant economies of scale and scope. This means that the established operators with high service volumes and broad portfolios of services have significantly lower unit costs than any new entrant. Such a situation makes it difficult for new operators to enter the market. In addition there are high sunk costs, which the new entrant has to pay before it can start offering services and which cannot be recovered if the market entry is not successful. Therefore we conclude that there are high and non-transitory structural barriers to entry.

Legal or regulatory barriers to entry are requirements set by the state or other public authorities which the new entrant has to comply with in order to be allowed to enter the market. To be able to offer public telecommunication services, each operator has to obtain a license. Currently ITPC is the only operator offering fixed telephony services via copper and fibre access lines in all of Iraq, is licensed to operate in all of Iraq but is currently don’t operate in the KRG region. At present, no other operator can acquire a license for this type of network. New WLL operators can acquire licenses from CMC, however these options are limited due to the available spectrum. Therefore we conclude that there are high and non-transitory legal and regulatory barriers to entry (even absolute barriers to entry in the case of fixed telephony services via copper and fibre access lines).

2.2.2 Market does not tend towards effective competition within the relevant time horizon

Competition between operators already active in the market (competition behind the barriers to entry) is the second criterion. Market share data show that ITPC is clearly the dominant operator in fixed telephony services in all of Iraq except KRG region. This situation has not changed over the years and is not expected to change in the near future. Therefore we conclude that the market does not tend towards effective competition within the relevant time horizon.

2.2.3 Insufficiency of competition law alone to adequately address the market failure(s)

Competition law reacts ex-post after anti-competitive behaviour is observed and imposes sanctions. It does not allow for ex-ante preventive measures. Therefore it cannot lower barriers to entry by obliging existing network operators to provide wholesale services to new entrants. It also cannot prevent excessive prices by setting pricing rules. Allowing pricing problems to arise and tackling them after they have already happened through ex-post competition law can lead to negative distortions of retail competition and consumer behaviour which can be difficult to remedy or reverse after the event. Therefore we conclude that competition law alone is not sufficient to adequately address the market failures.

2.2.4 Result of the three criteria test

As described above all three criteria are met and therefore the market is susceptible to ex-ante regulation.

2.3 Designation of operators with significant market power

Market share is the most important criterion to designate operators with significant market power. Market shares in all of Iraq except KRG region calculated based on the data submitted by the operators to CMC are as follows: ITPC 85%, Itisaluna 11%, Fanoos 3%, Kalimat 1%.

Market shares in KRG region could not be calculated. We have requested data from the responsible telecom authority in the KRG region but to-date we did not receive any feedback so neither the CMC nor the consulting firm should be held responsible for this status.

Market share of ITPC in all of Iraq except KRG region is above the 50% threshold which indicates significant market power. To be able to sufficiently assess the market position of ITPC we have also considered other factors which influence ITPC’s market power.

ITPC is the only operator which can offer fixed telephony services via copper and fibre access lines. This significantly strengthens its dominant position because all customers who prefer cable connections over WLL have to use the services of ITPC.

The market for fixed telephony services is a mature market. ITPC keeps its large customer base from the past and for alternative operators it is difficult to attract customers from ITPC especially because ITPC as the largest operator enjoys significant economies of scale and scope, which makes it difficult for the other operators to compete on price.

The dominant position of ITPC could be limited if there were customers who bought a large share of the services supplied by ITPC, thus providing a significant portion of ITPC's revenues, and they were well informed of alternative operators supplying similar services, and they could migrate easily and without incurring significant costs to services supplied by other operators. However the market for fixed telephony services is a retail market with a large number of small customers. None of these customers has countervailing buyer power strong enough to limit the significant market power of ITPC.

Therefore we conclude that ITPC is the operator with significant market power in the market for fixed telephony services in all of Iraq except KRG region. It was not possible to designate the operator with significant market power in KRG region. We have requested data from the responsible telecom authority in the KRG region but to-date we did not receive any feedback so neither the CMC nor the consulting firm should be held responsible for this status.

2.4 Regulatory obligations imposed on operators with significant market power

Regulatory obligations imposed on operators with significant market power should address the potential competition problems.

The following obligations shall be imposed on ITPC as the operator with significant market power in the market for fixed telephony services in all of Iraq except KRG region.

2.4.1 Obligation not to unreasonably bundle

An operator with significant market power in one market has the incentive to expand its market power into other markets by bundling products. In order to prevent this, CMC should require ITPC not to unreasonably bundle products. This means that customers must not be forced to use and pay for additional network facilities and services which they do not require. This obligation does not prevent ITPC from offering product bundles, but in addition ITPC must enable its customers to purchase on a standalone basis any individual service included in any bundle without being required by contractual or non-contractual means to purchase another service or to pay for services or facilities which are not necessary for the provision of the requested individual standalone service.

2.4.2 Obligation of transparency

Obligation of transparency should enable monitoring of compliance with other obligations and should enable customers to make informed choices about the requested services. CMC may specify the information which ITPC has to make publicly accessible, such as:

- accounting information
- technical specifications
- network characteristics
- terms and conditions for supply and use of services

- prices of services.

2.4.3 Obligation of price control

An operator with significant market power has the incentive to raise prices because there is no competitive pressure (for example from new entry or expansion of existing competitors) to prevent this. In addition it can use the excessive profit from the market where it has significant market power to cross-subsidize services in another market in order to expand its market power to the other market. Therefore CMC has to regulate the prices charged by operators with significant market power.

ITPC will be required to set prices based on costs including a reasonable rate of return on investment and has to be able to prove it to CMC. ITPC must submit the proposed prices of services and their justification to CMC at least 30 days before the publication of such prices, and CMC may, before or after the publication of the prices, require prices to be adjusted when it establishes that the prices are not cost based.

2.4.4 Obligation of cost accounting

In order to comply with the obligation of price control, ITPC must implement a cost accounting system which calculates unit costs of services including a reasonable rate of return on investment.

The system should allocate costs from the financial accounts of ITPC to the services (Top-Down Fully Allocated Costs). The allocation of costs to services has to follow these principles:

- Cost causality - costs shall be attributed to services in accordance with the activities which cause the costs to be incurred.
- Objectivity and non-discrimination - the attribution shall be objective and not intended to benefit any operator, service or network component.
- Consistency - the same methodology should be used over different periods.
- Transparency - the attribution methods used should be transparent and verifiable.
- Materiality - the use of a detailed causal allocation basis may not be necessary if the effect of the allocation is not material to the outcome.

The unit costs of all services should be calculated annually and submitted to CMC. The compliance of the operator's cost accounting system and its results with the methodology shall be verified by an independent auditor once a year.

Question 2: Do you agree that ITPC is the operator with significant market power in the market for fixed telephony services in all of Iraq except KRG region? Do you agree with the regulatory obligations which shall be imposed on ITPC? If not, please provide reasons for your response and describe which operator(s) has in your opinion significant market power in the market and which obligations should be imposed on it.

3 Fixed broadband services

3.1 Market definition

Each market has two dimensions: products included in the market and geographic extent of the market.

3.1.1 Market definition - products

Products included in a single market are all telecommunication services which are substitutable, either by demand-side substitutability or supply-side substitutability.

Fixed broadband services include all broadband services delivered via copper pairs, fibre, or WLL. From a customer perspective these products are substitutes, because they all enable the customer to access the internet. Therefore all these products are included in this market.

We have assessed whether mobile broadband services also belong to the same market.

From the customer point of view mobile broadband is not considered a substitute to fixed broadband, because it is limited compared to fixed broadband in terms of throughput capability, reliability of service and contention management. The reason is that the access network layer (i.e. the area served by a mobile base station) within the mobile broadband network is shared dynamically across end users utilising the broadband services within that area. For example, the demands placed on the finite amount of download capacity available within an area served by a mobile base station are variable having regard to both the number of active end users and the capacity they are using. Therefore mobile operators cannot guarantee minimum bandwidth which would be available to broadband customers. In comparison, fixed broadband services are not shared in the access network layer. They can be shared higher up within the broadband network, however this is done at a network layer where the availability of bandwidth is less of a problem and can be managed and provided more easily and cheaply. Therefore, from the point of view of demand-side substitutability, mobile broadband does not belong to this market.

Fixed network operators cannot offer mobile broadband without significant investment in radio access network and associated construction delay. Mobile network operators cannot offer fixed broadband without significant investment in fixed access network and associated construction delay. Therefore fixed and mobile broadband are not substitutes from the point of view of supply-side substitutability and mobile broadband does not belong to this market.

3.1.2 Market definition – geographic extent

Geographic areas where the conditions of competition are similar shall be included in one market.

Itisaluna, ITPC and Kalimat are licensed to operate in all of Iraq but currently don't operate in the KRG region. Fanoos operates in KRG region and in Kirkuk, Mosul, Diyala, Salladin. There are other telecom companies currently operating in the KRG region under the permission from the telecom communication authority or ministry in the KRG region and they are not regulated by the CMC. Therefore we divided the market for fixed broadband into two geographic regions: KRG region and all of Iraq except KRG region. However we have not included the KRG region in this market review because we have requested data from the responsible telecom authority in the KRG region but to-date we did not receive any feedback so neither the CMC nor the consulting firm should be held responsible for this status.

3.2 Determination whether the market is susceptible to ex-ante regulation

The decision whether the market is susceptible to ex-ante regulation should be based on the three criteria test. If all of the following three criteria are met, the market is susceptible to ex-ante regulation. If at least one of the criteria is not met, the market is not susceptible to ex-ante regulation. The three criteria are:

- Presence of high and non-transitory barriers to entry
- Market does not tend towards effective competition within the relevant time horizon
- Insufficiency of competition law alone to adequately address the market failure(s).

3.2.1 Presence of high and non-transitory barriers to entry

Barriers to entry enable an operator which is active in the market to keep prices above costs without triggering new market entries from outside.

Structural barriers to entry mean that there are asymmetries between the established operators and new entrants which hinder market entry. Telecommunication networks have high fixed costs resulting in significant economies of scale and scope. This means that the established operators with high service volumes and broad portfolios of services have significantly lower unit costs than any new entrant. Such a situation makes it difficult for new operators to enter the market. In addition there are high sunk costs, which the new entrant has to pay before it can start offering services and which cannot be recovered if the market entry is not successful. Therefore we conclude that there are high and non-transitory structural barriers to entry.

Legal or regulatory barriers to entry are requirements set by the state or other public authorities which the new entrant has to comply with in order to be allowed to enter the market. To be able to offer public telecommunication services, each operator has to obtain a license. Currently ITPC is the only operator which offer fixed broadband via copper and fibre access lines in all of Iraq, licensed to operate in all Iraq but currently don't operate in the KRG region. At present, no other operator can acquire a license for this type of network. New WLL operators can acquire licenses from CMC, however these options are limited due to the available spectrum. Therefore we conclude that there are high and non-transitory legal and regulatory barriers to entry (even absolute barriers to entry in the case of fixed broadband via copper and fibre access lines).

3.2.2 Market does not tend towards effective competition within the relevant time horizon

Competition between operators already active in the market (competition behind the barriers to entry) is the second criterion. Market shares in all of Iraq except KRG region calculated based on the data submitted by the operators to CMC are as follows: Kalimat 35%, Fanoos 32%, Itisaluna 23%, ITPC 10%. There is clearly no dominant operator. Therefore we conclude that the market tends towards effective competition within the relevant time horizon.

Market shares in KRG region could not be calculated. We have requested data from the responsible telecom authority in the KRG region but to-date we did not receive any feedback so neither the CMC nor the consulting firm should be held responsible for this status.

3.2.3 Insufficiency of competition law alone to adequately address the market failure(s)

Competition law reacts ex-post after anti-competitive behaviour is observed and imposes sanctions. It does not allow for ex-ante preventive measures. Therefore it cannot lower barriers to entry by obliging existing network operators to provide wholesale services to new entrants. It also cannot prevent excessive prices by setting pricing rules. Allowing pricing problems to arise and tackling them after they have already happened through ex-post competition law can lead to negative distortions of retail competition and consumer behaviour which can be difficult to remedy or reverse after the event. Therefore we conclude that competition law alone is not sufficient to adequately address the market failures.

3.2.4 Result of the three criteria test

As described above the second criterion is not met and therefore the market is not susceptible to ex-ante regulation.

Question 3: Do you agree that the market for fixed broadband in all of Iraq except KRG region is not susceptible to ex-ante regulation? If not, please provide reasons for your response and describe which operator(s) has in your opinion significant market power in the market and which obligations should be imposed on it.

4 Leased lines

4.1 Market definition

Each market has two dimensions: products included in the market and geographic extent of the market.

4.1.1 Market definition - products

Products included in a single market are all telecommunication services which are substitutable, either by demand-side substitutability or supply-side substitutability.

Leased line services include national and international leased lines. From a customer perspective these products are not substitutes. The customer wants to connect either two locations in Iraq or one location in Iraq and one location abroad.

However these products belong to one market based on supply-side substitutability. A fixed network operator which offers one type of leased lines can very easily and with low investment start to offer also the other type of leased lines.

4.1.2 Market definition – geographic extent

Geographic areas where the conditions of competition are similar shall be included in one market.

ITPC is the only operator which offers leased lines in all of Iraq except KRG region. There are other telecom companies currently operating in the KRG region under the permission from the telecom communication authority or ministry in the KRG region and they are not regulated by the CMC. Therefore we divided the market for leased lines into two geographic regions: KRG region and all of Iraq except KRG region. However we have not included the KRG region in this market review because we have requested data from the responsible telecom authority in the KRG region but to-date we did not receive any feedback so neither the CMC nor the consulting firm should be held responsible for this status.

4.2 Determination whether the market is susceptible to ex-ante regulation

The decision whether the market is susceptible to ex-ante regulation should be based on the three criteria test. If all of the following three criteria are met, the market is susceptible to ex-ante regulation. If at least one of the criteria is not met, the market is not susceptible to ex-ante regulation. The three criteria are:

- Presence of high and non-transitory barriers to entry
- Market does not tend towards effective competition within the relevant time horizon
- Insufficiency of competition law alone to adequately address the market failure(s).

4.2.1 Presence of high and non-transitory barriers to entry

Barriers to entry enable an operator which is active in the market to keep prices above costs without triggering new market entries from outside.

Structural barriers to entry mean that there are asymmetries between the established operators and new entrants which hinder market entry. Telecommunication networks have high fixed costs resulting in significant economies of scale and scope. This means that the established operators with high service volumes and broad portfolios of services have significantly lower unit costs than any new entrant. Such a situation makes it difficult for new operators to enter the market. In addition there are high sunk costs, which the new entrant has to pay before it can start offering services and which cannot be recovered if the market entry is not successful. Therefore we conclude that there are high and non-transitory structural barriers to entry.

Legal or regulatory barriers to entry are requirements set by the state or other public authorities which the new entrant has to comply with in order to be allowed to enter the market. Currently ITPC is the only operator which is allowed to offer leased lines in all of Iraq except KRG region. Therefore we conclude that there are high and non-transitory legal and regulatory barriers to entry (actually absolute barriers to entry).

4.2.2 Market does not tend towards effective competition within the relevant time horizon

Competition between operators already active in the market (competition behind the barriers to entry) is the second criterion. ITPC is the only operator active in this market in all of Iraq except KRG region. This situation has not changed over the years and is not expected to change in the near future. Therefore we conclude that the market does not tend towards effective competition within the relevant time horizon.

4.2.3 Insufficiency of competition law alone to adequately address the market failure(s)

Competition law reacts ex-post after anti-competitive behaviour is observed and imposes sanctions. It does not allow for ex-ante preventive measures. Therefore it cannot lower barriers to entry by obliging existing network operators to provide wholesale services to new entrants. It also cannot prevent excessive prices by setting pricing rules. Allowing pricing problems to arise and tackling them after they have already happened through ex-post competition law can lead to negative distortions of retail competition and consumer behaviour which can be difficult to remedy or reverse after the event. Therefore we conclude that competition law alone is not sufficient to adequately address the market failures.

4.2.4 Result of the three criteria test

As described above all three criteria are met and therefore the market is susceptible to ex-ante regulation.

4.3 Designation of operators with significant market power

Market share is the most important criterion to designate operators with significant market power. ITPC is the only operator active in the market in all of Iraq except KRG region and its market share is 100%.

Therefore we conclude that ITPC is the operator with significant market power in the market for leased lines in all of Iraq except KRG region. It was not possible to designate the operator with significant market power in KRG region. We have requested data from the responsible telecom authority in the KRG region but to-date we did not receive any feedback so neither the CMC nor the consulting firm should be held responsible for this status.

4.4 Regulatory obligations imposed on operators with significant market power

Regulatory obligations imposed on operators with significant market power should address the potential competition problems.

The following obligations shall be imposed on ITPC as the operator with significant market power in the market for leased lines in all of Iraq except KRG region.

4.4.1 Obligation not to unreasonably bundle

An operator with significant market power in one market has the incentive to expand its market power into other markets by bundling products. In order to prevent this, CMC should require ITPC not to unreasonably bundle products. This means that customers must not be forced to use and pay for additional network facilities and services which they do not require. This obligation does not prevent ITPC from offering product bundles, but in addition ITPC must enable its customers to purchase on a standalone basis any individual service included in any bundle without being required by contractual or non-contractual means to purchase another service or to pay for services or facilities which are not necessary for the provision of the requested individual standalone service.

4.4.2 Obligation of transparency

An obligation of transparency should enable monitoring of compliance with other obligations and should enable customers to make informed choices about the requested services. CMC may specify the information which ITPC has to make publicly accessible, such as:

- accounting information

- technical specifications
- network characteristics
- terms and conditions for supply and use of services
- prices of services.

4.4.3 Obligation of price control

An operator with significant market power has the incentive to raise prices because there is no competitive pressure (for example from new entry or expansion of existing competitors) to prevent this. In addition it can use the excessive profit from the market where it has significant market power to cross-subsidize services in another market in order to expand its market power to the other market. Therefore CMC has to regulate the prices charged by operators with significant market power.

ITPC will be required to set prices based on costs including a reasonable rate of return on investment and has to be able to prove it to CMC. ITPC must submit the proposed prices of services and their justification to CMC at least 30 days before the publication of such prices, and CMC may, before or after the publication of the prices, require prices to be adjusted when it establishes that the prices are not cost based.

4.4.4 Obligation of cost accounting

In order to comply with the obligation of price control, ITPC must implement a cost accounting system which calculates unit costs of services including a reasonable rate of return on investment.

The system should allocate costs from the financial accounts of ITPC to the services (Top-Down Fully Allocated Costs). The allocation of costs to services has to follow these principles:

- Cost causality - costs shall be attributed to services in accordance with the activities which cause the costs to be incurred.
- Objectivity and non-discrimination - the attribution shall be objective and not intended to benefit any operator, service or network component.
- Consistency - the same methodology should be used over different periods.
- Transparency - the attribution methods used should be transparent and verifiable.
- Materiality - the use of a detailed causal allocation basis may not be necessary if the effect of the allocation is not material to the outcome.

The unit costs of all services should be calculated annually and submitted to CMC. The compliance of the operator's cost accounting system and its results with the methodology shall be verified by an independent auditor once a year.

Question 4: Do you agree that ITPC is the operator with significant market power in the market for leased lines in all of Iraq except KRG region? Do you agree with the regulatory obligations which shall be imposed on ITPC? If not, please provide reasons for your response and describe which operator(s) has in your opinion significant market power in the market and which obligations should be imposed on it.

5 Fixed call termination

5.1 Market definition

Each market has two dimensions: products included in the market and geographic extent of the market.

5.1.1 Market definition - products

Products included in a single market are all telecommunication services which are substitutable, either by demand-side substitutability or supply-side substitutability.

Fixed call termination includes separate markets for termination of calls in the network of each of the fixed operators in Iraq. From a customer perspective these products are not substitutes, because when a customer makes a call, he wants to reach a subscriber in just one of the networks.

These markets are separated also from the point of view of supply-side substitutability. Each of the operators can terminate calls only in its own network and is not able to terminate calls in other networks.

5.1.2 Market definition – geographic extent

Geographic areas where the conditions of competition are similar shall be included in one market.

Each of the markets for fixed call termination is defined as the geographic area where the particular fixed operator is active.

5.2 Determination whether the market is susceptible to ex-ante regulation

The decision whether the market is susceptible to ex-ante regulation should be based on the three criteria test. If all of the following three criteria are met, the market is susceptible to ex-ante regulation. If at least one of the criteria is not met, the market is not susceptible to ex-ante regulation. The three criteria are:

- Presence of high and non-transitory barriers to entry
- Market does not tend towards effective competition within the relevant time horizon
- Insufficiency of competition law alone to adequately address the market failure(s).

5.2.1 Presence of high and non-transitory barriers to entry

Barriers to entry enable an operator which is active in the market to keep prices above costs without triggering new market entries from outside.

In the case of termination there are absolute barriers to entry, because no other operator can terminate calls in the network of the operator in question.

5.2.2 Market does not tend towards effective competition within the relevant time horizon

Competition between operators already active in the market (competition behind the barriers to entry) is the second criterion. In the termination market there is always just one operator which can terminate the traffic in the particular network. This situation cannot change. Therefore we conclude that the market does not tend towards effective competition within the relevant time horizon.

5.2.3 Insufficiency of competition law alone to adequately address the market failure(s)

Competition law reacts ex-post after anti-competitive behaviour is observed and imposes sanctions. It does not allow for ex-ante preventive measures. Therefore it cannot lower barriers to entry by obliging existing network operators to provide wholesale services to new entrants. It also cannot prevent excessive prices by setting pricing rules. Allowing pricing problems to arise and tackling them after they have already happened through ex-post competition law can lead to negative distortions of retail competition and consumer behaviour which can be difficult to remedy or reverse after the event. Therefore we conclude that competition law alone is not sufficient to adequately address the market failures.

5.2.4 Result of the three criteria test

As described above all three criteria are met and therefore the market is susceptible to ex-ante regulation.

5.3 Designation of operators with significant market power

Market share is the most important criterion to designate operators with significant market power. In the termination market there is always just one operator which can terminate the traffic in the particular network and its market share is 100%.

Termination is a wholesale service. Customers (the other operators) buy a large share of the services supplied by the operator, make a significant portion of the operator’s revenues and are well informed of alternative operators supplying similar services. However the basic characteristic of a termination market is that no other operator can terminate the traffic in the network of the operator in question. Therefore the customers have no alternative than to purchase the termination from the operator. There is no countervailing buyer power in the termination market.

Therefore we conclude that Fanoos, Itisaluna, ITPC and Kalimat and all fixed telephony operators currently operating in the KRG region under the permission from the telecom communication authority or ministry in the KRG region are operators with significant market power in the market for fixed call termination.

5.4 Regulatory obligations imposed on operators with significant market power

Regulatory obligations imposed on operators with significant market power should address the potential competition problems.

The following obligations shall be imposed on Fanoos, Itisaluna, ITPC and Kalimat and all fixed telephony operators currently operating in the KRG region under the permission from the telecom communication authority or ministry in the KRG region as the operators with significant market power in the market for fixed call termination.

5.4.1 Obligations for access to and use of specific network facilities

Each of the operators is the only operator which can terminate traffic in its own network. This means that each of the operators has control over infrastructure, which cannot be duplicated by other operators.

In order to overcome these competition problems, each of the operators should enable the other operators to gain access to its network facilities in the form of interconnection.

In detail, the obligation for access to and use of specific network facilities means that each of the operators should:

- interconnect networks or network facilities
- give other operators access to specified network elements and/or equipment
- negotiate in good faith with operators requesting access
- not withdraw access to facilities already granted
- provide specified services on a wholesale basis for resale by other operators
- grant open access to technical interfaces, protocols or other key technologies that are indispensable for the interoperability of services
- provide co-location or other forms of shared use of telecommunication infrastructure and associated facilities
- provide additional services for end-user interaction, including the facilities for intelligent networks services
- provide access to operational support systems or similar software systems necessary to ensure fair competition in the provision of services.

The access to and use of specific network facilities as described above should be defined taking into account the following factors:

- the technical and economic viability of using or installing competing facilities
- the feasibility of providing the access proposed, in relation to the capacity available
- the initial investment by the facility owner, bearing in mind the risks involved in making the investment
- the need to safeguard competition in the long term.

Each operator should prepare a Reference Interconnection Offer (RIO) where it would define the details of the offered wholesale services including technical specifications, ordering processes, quality of service standards, pricing and billing conditions, dispute resolution, contract conditions such as duration, cancellation etc.

5.4.2 Obligation not to unreasonably bundle

An operator with significant market power in one market has the incentive to expand its market power into other markets by bundling products. In order to prevent this, CMC should require operators not to unreasonably bundle products. This means that other operators must not be forced to use and pay for additional network facilities and services which they do not require. The other operators must have the option to purchase on a standalone basis any individual service without being required by contractual or non-contractual means to purchase another service or to pay for services or facilities which are not necessary for the provision of the requested individual standalone service.

5.4.3 Obligation of non-discrimination

When complying with the obligation for access to and use of specific network facilities as imposed above, each of the operators has to provide services and information to all other operators under the same conditions and of the same quality as it provides for its own retail services or to its subsidiaries or partners.

5.4.4 Obligation of transparency

Obligation of transparency should enable monitoring of compliance with other obligations and should enable customers to make informed choices about the requested services. CMC may specify the information which each of the operators has to make publicly accessible, such as:

- accounting information
- technical specifications
- network characteristics
- terms and conditions for supply and use of services
- prices of services.

As part of the obligation of transparency each of the operators will be required to publish its Reference Interconnection Offer (RIO).

5.4.5 Obligation of price control

An operator with significant market power has the incentive to raise prices because there is no competitive pressure (for example from new entry or expansion of existing competitors) to prevent this. In addition it can use the excessive profit from the market where it has significant market power to cross-subsidize services in another market in order to expand its market power to the other market.

Customers who buy termination services are also competitors of the operator in question in retail markets. Therefore charging high prices for termination restricts competition by raising rivals' costs.

High termination prices result in on-net/off-net retail tariff differentials, which can further entrench the attractiveness of larger networks with a high proportion of on-net calls.

In order to avoid these competition problems, CMC must regulate termination prices. International best practice is that regulated tariffs for wholesale traffic services (such as termination) are calculated by the regulator using Bottom-Up Long Run Incremental Costing (BU-LRIC) models. BU-LRIC models calculate the costs of a modern, efficient network and so estimate the prices which would prevail in a competitive market.

Each of the operators will be required to provide inputs for the calculation of the BU-LRIC models.

Question 5: Do you agree that Fanoos, Itisaluna, ITPC and Kalimat and all fixed telephony operators currently operating in the KRG region under the permission from the telecom communication authority or ministry in the KRG region are operators with significant market power in the market for fixed call termination? Do you agree with the regulatory obligations which shall be imposed on them? If not, please provide reasons for your response and describe which operators have in your opinion significant market power in the market and which obligations should be imposed on them.

6 Transit services

6.1 Market definition

Each market has two dimensions: products included in the market and geographic extent of the market.

6.1.1 Market definition - products

Products included in a single market are all telecommunication services which are substitutable, either by demand-side substitutability or supply-side substitutability.

Transit services include national and international transit. From a customer perspective these products are not substitutes. The customer wants to connect either to a national or international operator.

However these products belong to one market based on supply-side substitutability. A national operator which offers one type of transit can very easily and with low investment start to offer also the other type of transit.

6.1.2 Market definition – geographic extent

Geographic areas where the conditions of competition are similar shall be included in one market.

ITPC is the only operator which offers transit services in all of Iraq except KRG region. There are other telecom companies currently operating in the KRG region under the permission from the telecom communication authority or ministry in the KRG region and they are not regulated by the CMC. Therefore we divided the market for transit services into two geographic regions: KRG region and all of Iraq except KRG region. However we have not included the KRG region in this market review because we have requested data from the responsible telecom authority in the KRG region but to-date we did not receive any feedback so neither the CMC nor the consulting firm should be held responsible for this status.

6.2 Determination whether the market is susceptible to ex-ante regulation

The decision whether the market is susceptible to ex-ante regulation should be based on the three criteria test. If all of the following three criteria are met, the market is susceptible to ex-ante regulation. If at least one of the criteria is not met, the market is not susceptible to ex-ante regulation. The three criteria are:

- Presence of high and non-transitory barriers to entry
- Market does not tend towards effective competition within the relevant time horizon
- Insufficiency of competition law alone to adequately address the market failure(s).

6.2.1 Presence of high and non-transitory barriers to entry

Barriers to entry enable an operator which is active in the market to keep prices above costs without triggering new market entries from outside.

Structural barriers to entry mean that there are asymmetries between the established operators and new entrants which hinder market entry.

Telecommunication networks have high fixed costs resulting in significant economies of scale and scope. This means that the established operators with high service volumes and broad portfolios of services have significantly lower unit costs than any new entrant. Such a situation makes it difficult for new operators to enter the market. In addition there are high sunk costs, which the new entrant has to pay before it can start offering services and which cannot be recovered if the market entry is not successful. Therefore we conclude that there are high and non-transitory structural barriers to entry.

Legal or regulatory barriers to entry are requirements set by the state or other public authorities, which the new entrant has to comply with in order to be allowed to enter the market. Currently ITPC is the only operator which is allowed to offer transit services in all of Iraq except KRG region. Therefore we conclude that there are high and non-transitory legal and regulatory barriers to entry (actually absolute barriers to entry).

6.2.2 Market does not tend towards effective competition within the relevant time horizon

Competition between operators already active in the market (competition behind the barriers to entry) is the second criterion. ITPC is the only operator active in this market in all of Iraq except KRG region. There are discussions about allowing other operators to have international connectivity, but until now there are no outcomes which would indicate that the situation could change in the near future. Therefore we conclude that the market does not tend towards effective competition within the relevant time horizon.

6.2.3 Insufficiency of competition law alone to adequately address the market failure(s)

Competition law reacts ex-post after anti-competitive behaviour is observed and imposes sanctions. It does not allow for ex-ante preventive measures. Therefore it cannot lower barriers to entry by obliging existing network operators to provide wholesale services to new entrants. It also cannot prevent excessive prices by setting pricing rules. Allowing pricing problems to arise and tackling them after they have already happened through ex-post competition law can lead to negative distortions of retail competition and consumer behaviour which can be difficult to remedy or reverse after the event. Therefore we conclude that competition law alone is not sufficient to adequately address the market failures.

6.2.4 Result of the three criteria test

As described above all three criteria are met and therefore the market is susceptible to ex-ante regulation.

6.3 Designation of operators with significant market power

Market share is the most important criterion to designate operators with significant market power. ITPC is the only operator active in the market in all of Iraq except KRG region and its market share is 100%.

Transit services are wholesale services. Customers (the other operators) buy a large share of the services supplied by the operator, make a significant portion of the operator's revenues and are well informed of alternative operators supplying similar services. However in the current situation where ITPC is the only operator allowed to offer transit services, the customers have no alternative than to purchase transit services from ITPC. As a result they have no countervailing buyer power.

Therefore we conclude that ITPC is the operator with significant market power in the market for transit services in all of Iraq except KRG region. It was not possible to designate the operator with significant market power in KRG region. We have requested data from the responsible telecom authority in the KRG region but to-date we did not receive any feedback so neither the CMC nor the consulting firm should be held responsible for this status.

6.4 Regulatory obligations imposed on operators with significant market power

Regulatory obligations imposed on operators with significant market power should address the potential competition problems.

The following obligations shall be imposed on ITPC as the operator with significant market power in the market for transit services in all of Iraq except KRG region.

6.4.1 Obligations for access to and use of specific network facilities

ITPC is the only operator which can offer transit services. This means that ITPC has control over infrastructure, which cannot be easily duplicated by other operators.

In order to overcome these competition problems, ITPC should enable the other operators to gain access to its network facilities in the form of interconnection.

In detail, the obligation for access to and use of specific network facilities means that ITPC should:

- interconnect networks or network facilities
- give other operators access to specified network elements and/or equipment
- negotiate in good faith with operators requesting access
- not withdraw access to facilities already granted
- provide specified services on a wholesale basis for resale by other operators
- grant open access to technical interfaces, protocols or other key technologies that are indispensable for the interoperability of services
- provide co-location or other forms of shared use of telecommunication infrastructure and associated facilities
- provide additional services for end-user interaction, including the facilities for intelligent networks services

- provide access to operational support systems or similar software systems necessary to ensure fair competition in the provision of services.

The access to and use of specific network facilities as described above should be defined taking into account the following factors:

- the technical and economic viability of using or installing competing facilities
- the feasibility of providing the access proposed, in relation to the capacity available
- the initial investment by the facility owner, bearing in mind the risks involved in making the investment
- the need to safeguard competition in the long term.

ITPC should prepare a Reference Interconnection Offer (RIO) where it would define the details of the offered wholesale services including technical specifications, ordering processes, quality of service standards, pricing and billing conditions, dispute resolution, contract conditions such as duration, cancellation etc.

6.4.2 Obligation not to unreasonably bundle

An operator with significant market power in one market has the incentive to expand its market power into other markets by bundling products. In order to prevent this, CMC should require ITPC not to unreasonably bundle products. This means that other operators must not be forced to use and pay for additional network facilities and services which they do not require. The other operators must have the option to purchase on a standalone basis any individual service without being required by contractual or non-contractual means to purchase another service or to pay for services or facilities which are not necessary for the provision of the requested individual standalone service.

6.4.3 Obligation of non-discrimination

When complying with the obligation for access to and use of specific network facilities as imposed above, ITPC has to provide services and information to all other operators under the same conditions and of the same quality as it provides for its own retail services or to its subsidiaries or partners.

6.4.4 Obligation of transparency

Obligation of transparency should enable monitoring of compliance with other obligations and should enable customers to make informed choices about the requested services. CMC may specify the information which ITPC has to make publicly accessible, such as:

- accounting information
- technical specifications
- network characteristics

- terms and conditions for supply and use of services
- prices of services.

As part of the obligation of transparency, ITPC will be required to publish its Reference Interconnection Offer (RIO).

6.4.5 Obligation of price control

An operator with significant market power has the incentive to raise prices because there is no competitive pressure (for example from new entry or expansion of existing competitors) to prevent this. In addition it can use the excessive profit from the market where it has significant market power to cross-subsidize services in another market in order to expand its market power to the other market.

Customers who buy transit services are also competitors of the operator in question in retail markets. Therefore charging high prices for transit restricts competition by raising rivals' costs.

In order to avoid these competition problems, CMC must regulate transit prices. International best practice is that regulated tariffs for wholesale traffic services (such as transit) are calculated by the regulator using Bottom-Up Long Run Incremental Costing (BU-LRIC) models. BU-LRIC models calculate the costs of a modern, efficient network and so estimate the prices which would prevail in a competitive market.

ITPC will be required to provide inputs for the calculation of the BU-LRIC models.

Question 6: Do you agree that ITPC is the operator with significant market power in the market for transit services in all of Iraq except KRG region? Do you agree with the regulatory obligations which shall be imposed on ITPC? If not, please provide reasons for your response and describe which operator(s) has in your opinion significant market power in the market and which obligations should be imposed on it.

7 Mobile telephony services

7.1 Market definition

Each market has two dimensions: products included in the market and geographic extent of the market.

7.1.1 Market definition - products

Products included in a single market are all telecommunication services which are substitutable, either by demand-side substitutability or supply-side substitutability.

Mobile telephony services include on-net, off-net and international calls, SMS and MMS from a mobile phone, and mobile data. From a customer perspective these products are not substitutes. The customer wants either to call, or to send SMS or MMS, to either own network or to other national mobile and fixed networks or to international networks. Or he wants to use his mobile phone to browse the internet and use different applications.

However these products belong to one market based on supply-side substitutability. A mobile telephony operator which offers one type of mobile services can very easily and with low investment start to offer also the other types of mobile services.

Mobile services can be delivered over 2G, 3G or 4G technology. From a customer perspective these services are substitutes, because they offer customers the same functionality.

Therefore the market for mobile telephony services includes on-net, off-net and international calls, SMS and MMS and mobile data delivered over 2G, 3G and 4G technology.

7.1.2 Market definition – geographic extent

Geographic areas where the conditions of competition are similar shall be included in one market.

All the operators offering mobile telephony services in Iraq (Asiacell, Korek, Zain) have national coverage and their tariffs are set at the national level. Some of these operators have special regional offers, but they do not differ significantly from the national offers and represent only a small part of the service portfolio of the operators.

Pricing at the national level unifies the competitive conditions across the country, because it enables customers in regions with limited competition (low number of competing service providers) to benefit from competitive prices which are set by the operators in highly competitive areas.

Therefore the market for mobile telephony services can be defined at the national level.

7.2 Determination whether the market is susceptible to ex-ante regulation

The decision whether the market is susceptible to ex-ante regulation should be based on the three criteria test. If all of the following three criteria are met, the market is susceptible to ex-ante regulation. If at least one of the criteria is not met, the market is not susceptible to ex-ante regulation. The three criteria are:

- Presence of high and non-transitory barriers to entry
- Market does not tend towards effective competition within the relevant time horizon
- Insufficiency of competition law alone to adequately address the market failure(s).

7.2.1 Presence of high and non-transitory barriers to entry

Barriers to entry enable an operator which is active in the market to keep prices above costs without triggering new market entries from outside.

Structural barriers to entry mean that there are asymmetries between the established operators and new entrants which hinder market entry. Telecommunication networks have high fixed costs resulting in significant economies of scale and scope. This means that the established operators with high service volumes and broad portfolios of services have significantly lower unit costs than any new entrant. Such a situation makes it difficult for new operators to enter the market. In addition there are high sunk costs, which the new entrant has to pay before it can start offering services and which cannot be recovered if the market entry is not successful. Therefore we conclude that there are high and non-transitory structural barriers to entry.

Legal or regulatory barriers to entry are requirements set by the state or other public authorities which the new entrant has to comply with in order to be allowed to enter the market. To be able to offer public telecommunication services, each operator has to obtain a license. The number of licenses for mobile telephony services is very limited due to the available spectrum. The licenses are offered on only a few occasions, when appropriate radio frequencies become available for mobile telephony. Therefore we conclude that there are high and non-transitory legal and regulatory barriers to entry.

7.2.2 Market does not tend towards effective competition within the relevant time horizon

Competition between operators already active in the market (competition behind the barriers to entry) is the second criterion.

Market shares of the three mobile operators based on the number of subscribers are: Asiacell 33%, Korek 31% and Zain 35%. Market shares based on the revenues show a similar picture: Asiacell 41%, Korek 22%, Zain 36%. Asiacell and Zain are close to each other in terms of their market shares and it is not clear which is the biggest operator (Zain based on the number of subscribers and Asiacell based on revenues). Korek is only slightly behind. There is clearly no dominant operator. Therefore we conclude that the market tends towards effective competition within the relevant time horizon.

7.2.3 Insufficiency of competition law alone to adequately address the market failure(s)

Competition law reacts ex-post after anti-competitive behaviour is observed and imposes sanctions. It does not allow for ex-ante preventive measures. Therefore it cannot lower barriers to entry by obliging existing network operators to provide wholesale services to new entrants. It also cannot prevent excessive prices by setting pricing rules. Allowing pricing problems to arise and tackling them after they have already happened through ex-post competition law can lead to negative distortions of retail competition and consumer behaviour which can be difficult to remedy or reverse after the event. Therefore we conclude that competition law alone is not sufficient to adequately address the market failures. However, as there is already strong competition in the market, excessive prices will be limited by the competition itself and ex-ante price regulation should not be needed.

7.2.4 Result of the three criteria test

As described above the second criterion is not met and therefore the market is not susceptible to ex-ante regulation.

Question 7: Do you agree that the market for mobile telephony services is not susceptible to ex-ante regulation? If not, please provide reasons for your response and describe which operator(s) has in your opinion significant market power in the market and which obligations should be imposed on it.

8 Mobile call termination

8.1 Market definition

Each market has two dimensions: products included in the market and geographic extent of the market.

8.1.1 Market definition - products

Products included in a single market are all telecommunication services which are substitutable, either by demand-side substitutability or supply-side substitutability.

Mobile call termination includes three separate markets for termination of calls in the network of each of the mobile operators in Iraq (Asiacell, Korek, Zain). From a customer perspective these products are not substitutes, because when a customer makes a call, he wants to reach a subscriber in just one of the networks.

These markets are separated also from the point of view of supply-side substitutability. Each of the operators can terminate calls only in its own network and is not able to terminate calls in other networks.

8.1.2 Market definition – geographic extent

Geographic areas where the conditions of competition are similar shall be included in one market.

All the operators offering mobile call termination in Iraq (Asiacell, Korek, Zain) have national coverage and their termination tariffs are set at the national level.

Therefore the market for mobile call termination can be defined at the national level.

8.2 Determination whether the market is susceptible to ex-ante regulation

The decision whether the market is susceptible to ex-ante regulation should be based on the three criteria test. If all of the following three criteria are met, the market is susceptible to ex-ante regulation. If at least one of the criteria is not met, the market is not susceptible to ex-ante regulation. The three criteria are:

- Presence of high and non-transitory barriers to entry
- Market does not tend towards effective competition within the relevant time horizon
- Insufficiency of competition law alone to adequately address the market failure(s).

8.2.1 Presence of high and non-transitory barriers to entry

Barriers to entry enable an operator which is active in the market to keep prices above costs without triggering new market entries from outside.

In the case of termination there are absolute barriers to entry, because no other operator can terminate calls in the network of the operator in question.

8.2.2 Market does not tend towards effective competition within the relevant time horizon

Competition between operators already active in the market (competition behind the barriers to entry) is the second criterion. In the termination market there is always just one operator which can terminate the traffic in the particular network. This situation cannot change. Therefore we conclude that the market does not tend towards effective competition within the relevant time horizon.

8.2.3 Insufficiency of competition law alone to adequately address the market failure(s)

Competition law reacts ex-post after anti-competitive behaviour is observed and imposes sanctions. It does not allow for ex-ante preventive measures. Therefore it cannot lower barriers to entry by obliging existing network operators to provide wholesale services to new entrants. It also cannot prevent excessive prices by setting pricing rules. Allowing pricing problems to arise and tackling them after they have already happened through ex-post competition law can lead to negative distortions of retail competition and consumer behaviour which can be difficult to remedy or reverse after the event. Therefore we conclude that competition law alone is not sufficient to adequately address the market failures.

8.2.4 Result of the three criteria test

As described above all three criteria are met and therefore the market is susceptible to ex-ante regulation.

8.3 Designation of operators with significant market power

Market share is the most important criterion to designate operators with significant market power. In the termination market there is always just one operator which can terminate the traffic in the particular network and its market share is 100%.

Termination is a wholesale service. Customers (the other operators) buy a large share of the services supplied by the operator, make a significant portion of the operator's revenues and are well informed of alternative operators supplying similar services. However the basic characteristic of a termination market is that no other operator can terminate the traffic in the network of the operator in question. Therefore the customers have no alternative than to purchase the termination from the operator. There is no countervailing buyer power in the termination market.

Therefore we conclude that Asiacell, Korek and Zain are operators with significant market power in the market for mobile call termination.

8.4 Regulatory obligations imposed on operators with significant market power

Regulatory obligations imposed on operators with significant market power should address the potential competition problems.

The following obligations shall be imposed on Asiacell, Korek and Zain as the operators with significant market power in the market for mobile call termination.

8.4.1 Obligations for access to and use of specific network facilities

Each of the operators is the only operator which can terminate traffic in its own network. This means that each of the operators has control over infrastructure, which cannot be duplicated by other operators.

In order to overcome these competition problems, each of the operators should enable the other operators to gain access to its network facilities in the form of interconnection.

In detail, the obligation for access to and use of specific network facilities means that each of the operators should:

- interconnect networks or network facilities
- give other operators access to specified network elements and/or equipment
- negotiate in good faith with operators requesting access
- not withdraw access to facilities already granted
- provide specified services on a wholesale basis for resale by other operators
- grant open access to technical interfaces, protocols or other key technologies that are indispensable for the interoperability of services
- provide co-location or other forms of shared use of telecommunication infrastructure and associated facilities
- provide additional services for end-user interaction, including the facilities for intelligent networks services
- provide access to operational support systems or similar software systems necessary to ensure fair competition in the provision of services.

The access to and use of specific network facilities as described above should be defined taking into account the following factors:

- the technical and economic viability of using or installing competing facilities
- the feasibility of providing the access proposed, in relation to the capacity available
- the initial investment by the facility owner, bearing in mind the risks involved in making the investment
- the need to safeguard competition in the long term.

Each operator should prepare a Reference Interconnection Offer (RIO) where it would define the details of the offered wholesale services including technical specifications, ordering processes, quality of service standards, pricing and billing conditions, dispute resolution, contract conditions such as duration, cancellation etc.

8.4.2 Obligation not to unreasonably bundle

An operator with significant market power in one market has the incentive to expand its market power into other markets by bundling products. In order to prevent this, CMC should require operators not to unreasonably bundle products. This means that other operators must not be forced to use and pay for additional network facilities and services which they do not require. The other operators must have the option to purchase on a standalone basis any individual service without being required by contractual or non-contractual means to purchase another service or to pay for services or facilities which are not necessary for the provision of the requested individual standalone service.

8.4.3 Obligation of non-discrimination

When complying with the obligation for access to and use of specific network facilities as imposed above, each of the operators has to provide services and information to all other operators under the same conditions and of the same quality as it provides for its own retail services or to its subsidiaries or partners.

8.4.4 Obligation of transparency

Obligation of transparency should enable monitoring of compliance with other obligations and should enable customers to make informed choices about the requested services. CMC may specify the information which each of the operators has to make publicly accessible, such as:

- accounting information
- technical specifications
- network characteristics
- terms and conditions for supply and use of services
- prices of services.

As part of the obligation of transparency each of the operators will be required to publish its Reference Interconnection Offer (RIO).

8.4.5 Obligation of price control

An operator with significant market power has the incentive to raise prices because there is no competitive pressure (for example from new entry or expansion of existing competitors) to prevent this. In addition it can use the excessive profit from the market where it has significant market power to cross-subsidize services in another market in order to expand its market power to the other market.

Customers who buy termination services are also competitors of the operator in question in retail markets. Therefore charging high prices for termination restricts competition by raising rivals' costs.

High termination prices result in on-net/off-net retail tariff differentials, which can further entrench the attractiveness of larger networks with a high proportion of on-net calls.

In order to avoid these competition problems, CMC must regulate termination prices. International best practice is that regulated tariffs for wholesale traffic services (such as termination) are calculated by the regulator using Bottom-Up Long Run Incremental Costing (BU-LRIC) models. BU-LRIC models calculate the costs of a modern, efficient network and so estimate the prices which would prevail in a competitive market.

Each of the operators will be required to provide inputs for the calculation of the BU-LRIC models.

Question 8: Do you agree that Asiacell, Korek and Zain are operators with significant market power in the market for mobile call termination? Do you agree with the regulatory obligations which shall be imposed on them? If not, please provide reasons for your response and describe which operators have in your opinion significant market power in the market and which obligations should be imposed on them.