Wholesale voice call termination on individual mobile networks in Malta

Definition, assessment of SMP & regulation of relevant markets

Responses to consultation and draft decision

<table>
<thead>
<tr>
<th>Document reference</th>
<th>MCA/C/18-3239</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of publication</td>
<td>22nd October 2018</td>
</tr>
</tbody>
</table>
Market review – Wholesale voice call termination on individual mobile networks

2.4.5 Making an on-net MTM call instead of an off-net mobile calls ........................................... 19
2.4.6 Using call-back and call-forwarding solutions .................................................................. 19
2.4.7 Resorting to SMS messaging .............................................................................................. 19
2.4.8 Making use of over-the-top (OTT) services ........................................................................ 20
2.4.9 Conclusion on demand-side substitutability ......................................................................... 20
2.5 Supply-side substitutability ..................................................................................................... 20
2.6 A distinct termination market ................................................................................................ 21
2.7 Draft decision on market definition ......................................................................................... 21

3 Market analysis .......................................................................................................................... 23

3.1 Criteria used in determining SMP .......................................................................................... 23
  3.1.1 Distribution of market shares .............................................................................................. 23
  3.1.2 Potential competition .......................................................................................................... 23
  3.1.3 Countervailing buyer power (CBP) .................................................................................... 24
  3.1.4 The scope for price competition ......................................................................................... 27
3.2 Responses to consultation on the SMP assessment and MCA reactions ......................... 28
  3.2.1 Usage of OTT-based services .......................................................................................... 28
  3.2.2 FTM retail call rates ........................................................................................................... 29
3.3 Draft decision on the SMP assessment ................................................................................... 29

4 Regulatory approach .................................................................................................................... 31

4.1 Structure of the chapter .......................................................................................................... 31
4.2 Background to regulatory approach ........................................................................................ 31
4.3 Potential competition problems .............................................................................................. 31
  4.3.1 Excessive Pricing ............................................................................................................... 31
  4.3.2 Pricing Discrimination ....................................................................................................... 32
4.4 Obligations currently in place .................................................................................................. 32
4.5 Ex ante regulatory obligations proposed at consultation stage ............................................ 32
  4.5.1 Access Obligation ............................................................................................................. 32
  4.5.2 Non-discrimination ........................................................................................................... 33
  4.5.3 Transparency Obligation ................................................................................................... 33
4.5.4 Accounting Separation ................................................................. 34
4.5.5 Price control .............................................................................. 35
4.5.6 Cost accounting ........................................................................ 35
4.6 Responses to consultation on the MCA’s regulatory approach and MCA reactions .......... 36
  4.6.1 The obligations of cost accounting and accounting separation .................... 36
  4.6.2 The need to provide “access to associated facilities, or services for the purposes of
        interconnection” ............................................................................. 37
  4.6.3 Visibility to pure LRIC model ...................................................... 37
4.7 Draft Decision on the MCA’s ex ante regulatory approach ............................... 38
Executive Summary

The Malta Communications Authority (‘MCA’) is hereby notifying its draft decision concerning the regulatory treatment of the relevant product and service markets for the provision of wholesale termination on individual mobile networks in Malta.

This draft decision is in line with the requirements set out in Article 7(3) of the Framework Directive and follows a national consultation exercise carried out by the MCA between the 13th of June 2018 and the 16th of July 2018.

Comments to the national consultation were submitted by GO plc. and Vodafone Malta Ltd. These submissions together with the respective MCA reactions are integrated into this document in earmarked sections.

Main conclusions

i. Market definition

The products and services under consideration in this review consist of wholesale voice call termination services provided on individual mobile networks. The provision of these wholesale services enables retail customers to receive calls on their mobile number.

The MCA identifies three relevant wholesale markets in accordance with competition law principles, as follows:

- wholesale voice call termination provided by Vodafone Malta Ltd. (‘Vodafone’);
- wholesale voice call termination provided by GO p.l.c. (‘GO’); and
- wholesale voice call termination provided by Melita Ltd. (‘Melita’).

The geographical scope of each relevant market corresponds to the nationwide physical coverage of the respective mobile network operator (MNO).

More information on the Market Definition can be found in Chapter 2 of this document.

ii. Assessment of significant market power

The MCA considers that GO, Melita and Vodafone enjoy significant market power (SMP) in the provision of wholesale voice call termination on their own individual mobile network.

The SMP designations are based on the following considerations:

- a 100% market share for own voice call termination;
- the setting of own termination charges not constrained by potential market entry;
- no deterrence on charging behaviour from countervailing buyer power (CBP); and
- an incentive to increase mobile termination charges, which reduces the scope for price competition.

Full details of the MCA’s assessment of SMP are contained in Chapter 3 of this document.
iii. Regulatory approach

It has been determined that the undertakings identified with SMP are able to set their mobile termination charges independently of competitors and consumers.

Regulatory intervention is therefore required to ensure that the identified wholesale markets function properly and to ensure stronger competition at the retail level.

To this effect, the MCA is to maintain the following remedies on each operator designated with SMP in this market review:

- Access to/and use of specific facilities;
- Non-discrimination;
- Transparency; and
- Price control and cost accounting.

The MCA shall be withdrawing the accounting separation obligation from GO, Melita and Vodafone Malta to the extent of the accounting separation required on this particular market i.e. wholesale voice call termination on individual mobile networks in Malta.

All remedial action is based on the nature of the competition problems that have been identified in this market review. The MCA thus believes that the ex ante regulatory obligations listed above are the most appropriate in the current circumstances and shall remain so within the timeframe of this review. Each obligation is also considered to be proportionate and justified in light of the objectives set out in Article 4 of the Electronic Communications (Regulation) Act.

Local mobile network operators (MNOS) shall maintain the mobile termination rate as set by the MCA on the basis of the BUCM2 model, which rate has been specified in the MCA Decision published in December 2012. This rate has been established in line to the principles set forth in the 2009 EC Recommendation on fixed and mobile termination rates. The current regulated termination rates shall remain in force, meanwhile the MCA intends to closely monitor and participate in the process whereby the EU Commission is expected to implement a common mobile termination rate in Europe (planned for 2020) based on parameters yet to be formalized. In this regard, it is anticipated that the ‘new’ fixed termination rates shall be aligned to the relevant provisions of the Directive of the European Parliament and of the Council establishing the European Electronic Communications Code (EECC).

Full details of the MCA’s regulatory measures are contained in Chapter 4 to this document.

Consultation

As required by regulation 7 of the Electronic Communications Networks and Services (General) Regulations, Subsidiary Legislation 399.28, this MCA’s draft decision is being notified to the European Commission (the ‘EC’ or the ‘Commission’) and to other National Regulatory Authorities (NRAs).
Introduction

This chapter highlights the regulatory and methodological aspects underpinning the MCA’s approach in identifying and analysing the relevant wholesale mobile voice call termination market(s) in Malta. The sections of this chapter are as follows:

Section 1.1 provides a brief general insight into the regulation of electronic communications markets, outlining in the process the developments concerning the EU Commission Recommendation on relevant markets susceptible to ex ante regulation¹;

Section 1.2 outlines the methodology used by the MCA in defining and analyzing the market(s) for the service in question, taking utmost account of the product and service markets listed in the Recommendation;

Section 1.3 gives an overview of the main conclusions in the MCA’s previous decisions concerning wholesale mobile voice call termination;

Section 1.4 provides a general overview of key market trends and developments for the mobile sector in Malta, in terms of the competitive structure, retail demand and take-up, and developments in mobile retail tariffs and wholesale termination charges.

1.1 Regulatory insight

The European Union (EU) regulatory framework for electronic communications networks and services aims to create a harmonized regulatory environment across Europe and to foster effective competition for the benefit of industry and consumers.

1.1.1 The regulatory framework for electronic communications

There are five directives underpinning the regulatory framework of electronic communications²:

- Directive 2002/19/EC on access to, and interconnection of, electronic communications networks and associated facilities (‘the Access Directive’);
- Directive 2002/20/EC on the authorisation of electronic communications networks and services (‘the Authorisation Directive’);

¹ Link to commission recommendation on electronic communication sectors susceptible to ex ante regulation: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014H0710&from=en

Market review – Wholesale voice call termination on individual mobile networks

- Directive 2002/22/EC on universal service and users’ rights relating to electronic communications networks and services (‘the Universal Service Directive’); and

- Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector (‘the ePrivacy Directive’).

The Framework Directive provides the overall structure for the regulatory regime governing the provision of electronic communications products and services. It essentially sets out the fundamental rules, policy objectives and regulatory principles that NRAs must follow in regulating relevant markets.\(^3\)

In particular, Article 8 of the Framework Directive stipulates that the key policy objectives of the NRAs shall be the promotion of competition, the development of the internal market and the promotion of the interests of citizens of the European Union.

The EU Directives were transposed into Maltese law on 12th July 2011. The relevant national legislation is the Malta Communications Authority Act (Cap 418), the Electronic Communications (Regulation) Act (Cap. 399) (hereinafter referred to as ‘the ECRA’); and the Electronic Communications Networks and Services (General) Regulations of 2011 (hereinafter referred to as ‘the ECNSR’).

1.1.2 The EU Commission Recommendation on relevant markets

The EU Commission Recommendation on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation (hereinafter referred to as ‘the Recommendation’) promotes harmonisation across the single market and guarantees legal certainty across the EU.

The Explanatory Memorandum to the Recommendation\(^4\) states that the Recommendation ‘seeks to ensure that the same product and service markets will be subject to a market analysis in all Member States and that market players will be aware in advance of the markets to be analysed’.

The Memorandum also explains that the Recommendation allows NRAs to regulate markets that differ from those identified in the Recommendation, as long as this is justified by national circumstances. Accordingly, NRAs are allowed to define relevant markets appropriate to national circumstances, provided that the utmost account is taken of the product markets listed in the Recommendation.

Both the Annex to the initial Recommendation 2003/311/EC of 11 February 2003 and the Annex to the revised Recommendation 2007/879/EC of 17 December 2007 include the wholesale market for the provision of ‘voice call termination on individual mobile networks’, referred to as Market 16 and Market 7 respectively.

When referring to wholesale voice call termination on mobile networks, the Explanatory Memorandum to the revised Recommendation considers that a mobile termination service ‘is the least replicable input for retail mobile services’.


The Memorandum underlines that ‘since the termination charge is set by the called network, which is chosen by the called subscriber, the calling party in general does not have the ability to affect or influence termination charges’. It adds that the ‘Calling Party Pays (CPP) convention allows the terminating operator to raise its prices without a constraint from either party to the call’ and that there is no potential for demand-side substitution both at the retail and wholesale level.

From a supply-side point of view, the Memorandum argues that ‘if the supplier of call termination raises its price, it is not easy for alternative suppliers to switch to supply that market because they would need the SIM card details of that user to do so’. It adds that ‘a constraint would exist if, when a network operator tried to raise termination rates (or resisted lowering them), the overall impact were unprofitable’ although it recognizes that ‘such supply-side substitution is not currently possible’.

The Memorandum concludes that ‘there is limited evidence of widespread constraints on the pricing of wholesale call termination’ and that therefore ‘call termination by third parties on individual networks is the appropriate relevant market’, which in turn would imply that ‘currently each mobile network operator is a single supplier on each market’.

### 1.2 The market review process

The MCA carries out its market reviews in line with the prevailing legal and economic standards established under EU competition law and accepted antitrust economic principles.

The market review process follows three main stages:

- the definition of the relevant market or markets;
- an assessment of the state of competition in each market, in particular whether any undertaking is deemed to have SMP in the market in question; and
- an assessment of the appropriate regulatory obligations which should be maintained, amended, or withdrawn, given the findings of SMP, to ensure that regulation remains appropriate in the light of changing market conditions (NRAs are obliged to impose some form of regulation where SMP is identified).

The MCA takes utmost account of the Recommendation when defining product and service markets within the electronic communications sector, with markets defined appropriate to national circumstances and that may be the subject of ex ante regulation.

The market review process is further informed by the Commission’s ‘Communication on the SMP Guidelines’ for market analysis and the assessment of significant market power\(^5\), which assumes particular relevance in the assessment of competition and the identification of SMP operators in the relevant market(s).

The Commission Recommendation 2009/396/EC of 7 May 2009 on the regulatory treatment of fixed and mobile termination rates in the EU\(^6\) (hereafter, referred to as the ‘Recommendation on termination

\(^{5}\) The Guidelines are referred to in Article 15(2) of the Framework Directive. These are available on the following link: [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52018XC0507(01)]

\(^{6}\) The Commission Recommendation of 7 May 2009 on the Regulatory Treatment of Fixed and Mobile Termination Rates in the EU is available on the following link:
1.2.1 The identification of relevant markets

The market definition exercise aims to identify, in a methodical way, the competitive constraints faced by undertakings in the provision of mobile voice call termination services, thereby also facilitating the subsequent market analysis procedure.

The assessment is forward looking in nature, taking into account 'expected or foreseeable technological or economic developments over a reasonable horizon'.

There are two dimensions to the market definition exercise: the product market dimension and the geographic market dimension.

Central to the various dimensions of the market definition exercise are the demand-side and supply-side substitutability conditions amongst the different products and services that could potentially form part of the market(s) under investigation.

As per the Commission’s guidelines on market analysis and the assessment of SMP, demand-side substitutability is used to measure the extent to which consumers are prepared to substitute other services or products for the service or product under investigation.

Supply-side substitutability, on the other hand, indicates whether in the immediate to short term, suppliers other than those offering the product or service in question would switch their line of production to offer the relevant products or services without incurring considerable additional costs.

The Hypothetical Monopolist Test (the ‘HMT Test’), otherwise commonly referred to as the SSNIP test (meaning ‘small but significant non-transitory increase in price’) is a key element in the substitutability assessment.

The HMT test considers the interchangeability of products in the case of a hypothetical small increase in price, usually understood as being an increase in the range of 5 to 10 percent, in any of the products/services under investigation.

Overall, the HMT test would determine whether a hypothetical monopolist would be in a position to sustain a 5 to 10 percent increase in price because of significant demand-side and supply-side substitution effects.

To this effect, the relevant product market shall comprise all those products and services that are substitutable, not only in terms of the price and the intended use of the product under investigation, but also in terms of the overall conditions of supply and demand.


7 See Section 2.1 of the Explanatory Memorandum to the Recommendation.
With respect to the geographic market definition, the Recommendation states that ‘a relevant geographic market comprises an area in which the undertakings concerned are involved in the supply and demand of the relevant products or services, in which area the conditions of competition are similar or sufficiently homogenous and which can be distinguished from neighbouring areas in which the prevailing conditions of competition are appreciably different’.

The MCA defines relevant geographic markets on the basis of an interchangeability assessment between products and services following a SSNIP. It applies two main criteria in its assessment of the geographic dimension of the market definition exercise:

- the area covered by the network; and
- the scope of application of legal and other regulatory instruments.

Finally, it is pointed out that the market definition exercise abides by the principle of ‘technology neutrality’ and takes utmost account of all network platforms in Malta, irrespective of the underlying technology.

1.2.2 An assessment of the state of competition

According to regulation 6(2) of the ECNSR ‘an undertaking shall be deemed to have significant market power if, either individually or jointly with others, it enjoys a position equivalent to dominance, that is to say a position of economic strength affording it the power to behave to an appreciable extent independently of competitors, customers and ultimately consumers’.

Regulation 6(4) also states that ‘where an undertaking has significant market power on a specific market, it may also be deemed to have significant market power on a closely related market, where the links between the two markets are such as to allow the market power held in one market to be leveraged into the other market, thereby strengthening the market power of the undertaking’.

Therefore, in view of the above, the current review would only designate an undertaking with SMP, where it is found that such undertaking enjoys a position of dominance in the provision of the product or service under investigation.

It therefore stands to reason that existing designations of SMP in the provision of mobile voice call termination services on Melita, GO and Vodafone will be re-assessed.

An SMP assessment is carried out taking into consideration several criteria, including:

- market shares;
- control of infrastructure not easily duplicated;
- entry deterrence;
- vertical and horizontal integration;
- economies of scale and scope;
- countervailing buyer power ('CBP');
- potential competition; and
- evolving pricing structures in the mobile sector.

---

8 The analysis concerned shall also be supported by market data, which is collected from various internal and external sources, including users and providers of electronic communications networks and services and from regular consumer surveys.
1.2.3 Regulatory approach

In accordance with regulation (6) of the ECNSR, the MCA is obliged to impose regulatory obligations if an operator is designated as having SMP on a relevant market, either individually or jointly with others, as referred to in sub regulation (2) of regulation 5 of the ECNSR. If such obligations already exist, as is the case for the provision of mobile voice call termination services in Malta, and a finding of dominance is ascertained, the MCA would have to maintain or amend the regulatory conditions accordingly.

If, on the other hand, a finding of SMP cannot be ascertained in an already regulated environment, the MCA would have to withdraw such regulation, in accordance with regulation (5) of the ECNSR, subject to an appropriate period of notice given to all parties affected by such withdrawal.

1.3 Background to previous decisions

In accordance with its powers at law, the MCA has already carried out three market reviews with respect to the provision of wholesale mobile voice call termination services.

The main finding in every review so far is that all mobile network operators (MNOs) have SMP in the provision of wholesale mobile voice call termination within their own mobile network.

1.3.1 The first market review decision (2005)

The first review of this market was conducted in 2005 (see case MT/2005/0214) and a Decision published on the 21st of December of that same year. At that time, the MCA designated Vodafone Malta Ltd. (‘Vodafone’) and Mobisle Communications Ltd. (‘GO Mobile’) as SMP operators in the provision of voice call termination on their own individual mobile network.

The main factors supporting the finding of SMP include the evolution of market shares; the presence of barriers to entry; lack of potential competition; weak CBP due to the CPP principle; and the pricing structures for the mobile sector.

Given the SMP position held by all providers of wholesale mobile voice call termination on their respective networks, the MCA applied the following regulatory obligations to every termination market:

- Access;
- Non-discrimination against alternative fixed or mobile operators;
- Transparency (provision of information to the MCA regarding prices, technical specifications and accounting, and publication of a reference offer);
- Accounting separation;
- Price control and cost accounting.

With regards to price control, the MCA used a top-down model to establish symmetric mobile termination charges within a three-year glide path period ending in 2008. This mechanism brought down the termination price charged by GO Mobile and Vodafone by more than 20% to €0.0962.

9 Link to MCA notification Case MT/2005/0214.
1.3.2 The second market review decision (2008 / 2009 / 2010)

The MCA carried out a second review of this market (see case MT/2008/0790)\(^{11}\) and published a Decision on 6\(^{th}\) October 2008\(^{12}\), whereby it confirmed the designation of SMP on Mobile Communications Ltd. and Vodafone Malta Ltd. in the provision of voice call termination on their respective mobile networks.

The MCA notified the Commission with an extension of the second market review in 2009 (see case MT/2009/0926)\(^{13}\), taking into account the new market entrant, Melita (Mobile) Ltd. This MNO was also found to have SMP in the provision of mobile voice call termination over its own network. Hence, the MCA extended the regulatory obligations to this MNO.

1.3.3 The third market review decision (2014)

The third review of this market was carried out by the MCA in July 2013 (see case MT/2013/1510) and the respective MCA Decision published in 2014\(^{14}\). The MCA determined that the three MNOs; Vodafone, GO and Melita held significant market power in their respective wholesale termination market.

The conclusion that all MNOs had SMP in the provision of voice call termination over their own individual network was based on the following evidence:

i. **100% market share of minutes terminated on own network**

Every MNO continues to hold 100% share in terms of voice call traffic terminating on its own network. With this reasoning, each MNO holds a monopolistic position in terms of all the minutes terminating on its own network.

ii. **Potential market entry and CBP**

With regards to mobile voice call termination, MNOs would still be expected to terminate outgoing calls on the network to which the called number belongs. Any new operators entering the market would be expected to purchase termination from existing MNOs and likewise established MNOs would be expected to buy termination from new entrants in the market. As such, an operator new to the market would not be in a position to set a constraint on established MNOs, such as to prevent them from setting high termination charges.

In a wider context, neither fixed nor mobile network operators are in a position to exert CBP on each other, such as to constrain mobile termination charges to the competitive level. Termination can only be purchased from the MNO to which the called party is subscribed.

It is therefore considered that all local MNOs face the same identical 'monopolist conditions' for the setting of their own mobile termination charges and cannot be constrained in setting such charges at the competitive level, even if new players start operating in the market.

---

\(^{11}\) Link to MCA notification Case MT/2008/0790.


\(^{13}\) Link to MCA notification Case MT/2009/0926.

\(^{14}\) The MCA Decision and other relevant documentation is available on the following link: [https://mca.org.mt/consultations-decisions/mca-decision-definition-assessment-competition-and-regulation-mobile-voice](https://mca.org.mt/consultations-decisions/mca-decision-definition-assessment-competition-and-regulation-mobile-voice)
iii. The scope for price competition

Network operators have no option other than to buy termination from the MNO to which the number of the called party belongs. Moreover, due to the CPP principle, consumers do not have any interest in the cost that other parties incur when answering a call to their number. Mobile telephony subscribers cannot therefore exercise CBP on the setting of mobile termination charges. Therefore, without regulation, MNOS would most probably set non-competitive mobile termination rates (MTRs) and thus influence negatively retail mobile prices.

1.4 The mobile sector in Malta – an overview of developments

The focus of this section is to provide some background on the mobile sector in Malta, specifically on the distribution of market shares in terms of subscriptions and traffic volumes and on developments in local mobile termination charges and retail mobile voice call tariffs.

1.4.1 Market presence and distribution of market shares

The local mobile telephony market is characterised by three MNOs, namely Vodafone, GO and Melita. All three MNOs have nationwide infrastructure in place and offer services over all the national territory.

Vodafone started its operations in 1990, while GO launched their services in December 2000. The launch of mobile telephony services by Melita became a reality on the 1st of February 2009.

Malta has also seen the launch of four mobile virtual network operators (MVNOs) in 2008 and 2009, namely Bay Mobile, Ping, RedTouch Fone Ltd. (RedTouch) and VFC Mobile. Ping used GO’s infrastructure in its operations, while the rest used Vodafone’s infrastructure. To date, only RedTouch and VFC Mobile are active on the market, as Bay Mobile and Ping have both ceased operations.

Based on figures supplied by operators, the market shares of local MNOs in terms of subscriptions and outgoing voice minute volumes are as follows:

- In terms of subscriptions, Vodafone Malta’s market share stood at 43.2% at the end of 2017, followed by GO at 36.7% and Melita Ltd. at 18.6%. The remaining share is attributed to RedTouch.

- In terms of outgoing voice minute volumes recorded in 2017, Vodafone’s share stood at 43.1%, compared to GO’s at 28.9% and Melita’s 27.5%. Active MVNOs showed a market share of just 0.4% in terms of traffic volumes.

<table>
<thead>
<tr>
<th>SUBSCRIPTIONS</th>
<th>NUMBER OF SUBSCRIPTIONS</th>
<th>MARKET SHARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>556,652</td>
<td>546,229</td>
</tr>
<tr>
<td>GO Mobile</td>
<td>205,489</td>
<td>213,472</td>
</tr>
<tr>
<td>Vodafone (Malta)</td>
<td>264,342</td>
<td>241,844</td>
</tr>
<tr>
<td>Melita Mobile</td>
<td>76,180</td>
<td>80,729</td>
</tr>
<tr>
<td>Redtouchfone</td>
<td>10,583</td>
<td>10,115</td>
</tr>
<tr>
<td>Other</td>
<td>58</td>
<td>69</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VOICE TRAFFIC VOLUMES</th>
<th>ORIGINATING voice traffic volumes (minutes)</th>
<th>MARKET SHARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>GO Mobile</td>
<td>666,554,359</td>
<td>718,943,728</td>
</tr>
<tr>
<td>Vodafone (Malta)</td>
<td>336,429,759</td>
<td>340,427,809</td>
</tr>
<tr>
<td>Melita Mobile</td>
<td>150,095,767</td>
<td>169,221,874</td>
</tr>
<tr>
<td>Other</td>
<td>3,597,590</td>
<td>3,566,809</td>
</tr>
</tbody>
</table>

Table 1: Market shares by operator, in terms of subscriptions and originating voice traffic volumes
1.4.2 Developments in local mobile termination charges

Mobile termination charges have consistently gone down over the years as a result of regulatory intervention. The current regulated MTR came into force in 2014 and stands at €0.004, down from €0.0207 in 2012. This drop reflects further optimisation using the MCA’s implementation of the Pure BU-LRIC cost accounting model.

![Chart 1: Development of mobile termination charges in Malta](image)

1.5 Public consultation

The MCA has provided market players and interested parties with the opportunity to comment on the findings prior to notifying this draft decision.

The MCA has also carried out this market review in consultation with, where appropriate, with an agreement with the National Competition Authority (‘the NCA’) under article 4 of the MCA Act. This is in line with the cooperation agreement signed on 20th May 2005 between the MCA and the Office of Fair Competition, succeeded by the Office for Competition forming part of the Malta Competition and Consumer Affairs Authority (‘the MCCAA’).
Market review – Wholesale voice call termination on individual mobile networks

2 Market definition

The Commission Recommendation considers call termination on individual mobile networks as relevant for the purposes of ex ante regulation. In particular, the Recommendation defines the market for mobile voice call termination at the individual network level, which effectively means that each MNO constitutes a separate call termination market given that it is the sole supplier of termination services on its own network.

The MCA’s third round market review decision concurs with the Recommendation in that it defines three separate markets for call termination that correspond to each local MNO. The current review considers whether such a conclusion remains appropriate.

2.1 Structure of the chapter

The rest of this chapter is structured as follows:

Section 2.2 explains the relevance of mobile voice call termination in the provision of retail mobile telephony services and highlights upon the principles governing the payment mechanisms for the service in question.

Sections 2.3, 2.4 and 2.5 assess the extent to which the provision of voice call termination and the setting of mobile termination charges by a local MNO might be constrained via demand-side and supply-side substitution possibilities at the retail and wholesale levels.

Section 2.6 identifies the wholesale markets concerning the provision of mobile voice call termination services in Malta and the relevant geographic scope of these markets.

2.2 Voice call termination on mobile networks

Mobile voice call termination is a wholesale input, which in addition to wholesale call access and call origination, enables the provision of various types of mobile voice call services.

Technically, the wholesale inputs of access, origination and termination allow for a call to be completed over two distinct networks, namely the network to which the customer making the call is subscribed (i.e. the network of the calling party) and the network to which the customer receiving the call belongs to (i.e. the network of the called party).

Therefore, the wholesale mobile termination service enables customers to receive calls, which can be initiated by customers active on the same MNO or customers that are active on other fixed network operators (FNOs) and MNOs.

2.2.1 Transactions based on the CPP arrangement

Under current commercial agreements, local network operators abide by the principles of the so-called ‘calling party pays’ (CPP) model for transactions related to termination services. Under the CPP arrangement, the originating MNO or FNO pays a charge to the MNO that is terminating the call. This charge is typically referred to as the MTR.
The originating operator would subsequently recover the mobile termination charge, together with the costs it incurs for originating and delivering a call, through the retail price it charges to its customers when these are making a call (i.e. the calling party).

2.2.2 A uniform mobile termination charge

Due to regulatory intervention, local MNOs currently apply the same MTR when terminating a call, irrespective of the network operator originating the call. The logic behind the application of a uniform mobile termination charge rests on the reasoning that a call terminated on a mobile network uses the same network elements, and therefore incurs the same cost, regardless of the origination network being either fixed or mobile.

The current regulated MTR is also applicable to local reseller MVNOs. It is noted that reseller MVNOs in Malta are only reselling products based on their host operator, which in this case is Vodafone Malta. It stands to reason that mobile voice telephony services offered by local MVNOs are dependent on the host’s network for all stages of the call, including termination. Hence, MVNOs apply the same MTRs as their host MNO.

2.3 The substitutability assessment

This section determines which products fall in the relevant market(s) for mobile voice call termination provided in Malta. The market definition exercise takes into account the degree of interrelationship between the wholesale and retail levels of competition. This is particularly relevant in the context of mobile voice call termination, as this service is a wholesale input to the provision of mobile retail voice call services.

Of particular relevance in this regard is the price sensitivity of customers to mobile termination charges. Ultimately, the assessment focuses on whether voice termination on an individual MNO would have a direct substitute that would translate into a direct competitive constraint on the provision of the termination service by the MNO in question and the setting of mobile termination charges. Of note at this stage is that all local FNOs and MNOs are interconnected and are required to guarantee such interconnectivity.

The assessment also abides by the principle of ‘technology neutrality’ and stands by the conclusion that, from a technological and functional point of view, the dynamics of voice call termination on 2G, 3G and 4G mobile networks are the same. There are no technical obstacles for a customer on a 2G handset to make a call to and/or receive calls from, say, a customer on a 3G and 4G handset or vice-versa. Calls terminating on a 3G or 4G network are no different than calls terminating on 2G networks.

2.4 Demand-side substitutability

The demand side substitutability analysis considers whether there are alternatives to voice calls terminating on any given network.
2.4.1 Demand-side substitutability at the wholesale level

At a wholesale level, interconnectivity is guaranteed between all MNOs and FNOs in Malta. The network from which the call is originating does not have an effective substitute to terminating a call on a given MNO. The originating operator can only purchase voice call termination from the MNO to which the called party is subscribed.

This means that there is no potential for demand-side substitution at the wholesale level.

2.4.2 Demand-side substitutability at the retail level

Given the CPP principle, a demand-side constraint on the setting of MTRs could hypothetically arise if a 5 to 10% increase in the mobile termination charge becomes unprofitable as a result of the calling party bypassing the operator hosting the called party.

In this regard, it is considered whether the calling party could seek alternative ways to reach the mobile number of a third party without having to pay mobile termination charges or by keeping such charges at a minimum. The following sections highlight whether such strategies can effectively materialise and ultimately whether these could pose a constraint on the setting of MTRs.

2.4.3 Calling a fixed number instead of a mobile number

Given that the called party has the last say in choosing the MNO hosting his/her number, the calling party may seek to avoid paying mobile termination charges by calling the intended recipient on his/her fixed line number instead.

However, due to the fact that people are increasingly on the move, reaching someone on a fixed number may prove to be somewhat difficult and particularly inefficient if urgent contact is required for a brief conversation. Additionally, from a price standpoint, the scope of reaching someone on a fixed line number is diluting over time, given the gradual decline observed for mobile call rates. These considerations also shed light as to why fixed line voice traffic volumes keep falling in contrast to rising mobile voice traffic volumes.

Given developments over recent years, calls to a fixed line number cannot therefore be deemed to pose a sufficiently strong constraint on the setting of mobile termination charges.

2.4.4 Calling from a fixed or mobile number depending on the cheapest option

Figures available to the MCA show that fixed line originating minutes are constantly in decline, including fixed-to-mobile voice call minutes. The latter type of traffic was down on average by 0.5% year-on-year between 2014 and 2017. This downward trend reflects changing voice calling consumption patterns, particularly in view of the increasing mobility of consumers. It also goes to suggest that it is getting cheaper to make a mobile-to-mobile call rather than a fixed-to-mobile call at the retail level.

Moreover, mobile termination rates at the wholesale level are not determined by the device from which the call is originating but rather the number on which the call is set to terminate. Therefore, the source of a call will not in any way influence mobile termination charges set by MNOs.

Given the above information, the MCA considers that the choice between making a call from a fixed telephony device over a mobile phone is not influential on the setting of MTRs.
2.4.5 Making an on-net MTM call instead of an off-net mobile calls

In general, on-net mobile-to-mobile (MTM) calls are cheaper than off-net MTM calls, given also the increasing availability of on-net MTM voice call minute allowances. For obvious reasons, the calling party can only make an on-net MTM call when subscribed to the same network of the called party. Since the calling party does not typically know the cost of a one-minute voice call and is largely unaware of applicable termination charges\(^\text{15}\), the mobile termination rate is unlikely to affect the choice of the originating network by the calling party. In other words, a calling party not subscribed to the network operator hosting the number of the called party is unlikely to make a decision to switch operator or to acquire an additional mobile subscription on the basis of the applicable termination charges.\(^\text{16}\) Therefore, while it is possible for substitution between on-net MTM calls and off-net MTM calls to happen, this is not considered to be sufficiently widespread as to pose a constraint on the pricing of wholesale call termination.

2.4.6 Using call-back and call-forwarding solutions

Call-back and call-forwarding solutions are automatically established to re-route calls for intensive users, such as businesses and Closed User Groups (CUGs). In general, however, these solutions are neither commercially available on a large scale nor widely in demand.

Take-up of these solutions is limited and the situation is unlikely to change within the timeframe of this review. This means that the usage of call-back and call-forwarding solutions is unlikely to impact on the setting of local mobile termination charges.

2.4.7 Resorting to SMS messaging

Figures available to the MCA exhibit falling SMS traffic volumes, in contrast to rising voice minute volumes. Voice traffic volume minutes have increased by 34.5% in the period 2013 - 2017, whilst the SMS traffic volume dropped by 43.5% during the same period. This trend persists regardless of the fact that SMS are a ‘cheaper’ form of communication.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Voice call minutes</td>
<td>655,570,224</td>
<td>718,958,014</td>
<td>771,641,310</td>
<td>808,014,274</td>
<td>882,787,581</td>
</tr>
<tr>
<td>SMSes</td>
<td>589,103,515</td>
<td>509,296,036</td>
<td>457,324,834</td>
<td>401,796,784</td>
<td>332,626,002</td>
</tr>
</tbody>
</table>

Table 3: Traffic volumes: SMS messaging vs voice call minutes

Moreover, the latest consumer perception surveys for mobile telephony conducted by the MCA\(^\text{17}\) indicates that consumers are getting increasingly inclined to make a mobile voice call rather than sending an SMS.

\(^{15}\) Data gathered from surveys that are carried out regularly by the MCA indicates that consumers have little knowledge as to the applicable mobile telephony per minute call rates, let alone knowledge on the termination charges involved when making a call to another mobile number. It is also noted that current mobile telephony plans feature minute allowances, which make it more complex for end-users to know exactly their per minute call rates.

\(^{16}\) Moreover, end-users may switch service providers and keep their mobile number, which makes it harder for the calling party to identify the operator hosting the number of the called party.

\(^{17}\) The consumer perception surveys conducted by the MCA can be found in the link below. The 2017 mobile perception surveys will be published in due course: [https://www.mca.org.mt/publications?term_node_tid_depth=582](https://www.mca.org.mt/publications?term_node_tid_depth=582).
Market review – Wholesale voice call termination on individual mobile networks

The above goes to suggest that SMS lost relevance over time, also considering the rise of OTT-based voice alternatives highlighted below. The MCA is therefore of the view that SMSs and voice calls qualify as complementary services rather than substitutes, which means that the use of SMS is inadequate in creating an effective constraint on the setting of mobile termination charges.

2.4.8 Making use of over-the-top (OTT) services

In recent years, usage of OTT-based applications for voice telephony and OTT-based messaging services has gained traction in Malta. This is confirmed by findings of the consumer perception surveys carried out by the MCA in the period 2013 to 2017. The trend is clear in showing that the percentage of households that are using OTT-based voice calling services, such as Viber, Skype, WhatsApp or Messenger, increased consistently over the period in question, from 18% in 2013 to 54% in 2017. In addition to this, 69% of those respondents making use of OTT-based services consider calls made over this platform as being substitutable to the traditional voice calling services.

However, the MCA recognises that the window of opportunity to substitute OTT-based voice calling with other traditional voice calling methods is not without limitations and as straightforward to argue. In fact, the MCA’s Consumer Perception Survey carried out last year finds that only 18% of respondents ‘often’ make use of OTT-based voice calling applications. This is because OTT-based applications can only be accessed if the user has access to broadband or Wi-Fi. Also, access to mobile and fixed broadband, and sometimes even access to Wi-Fi, entails a cost which would unlikely be carried for the sole purpose of using OTT-based services but rather to get fixed or mobile data.

The MCA therefore considers that usage of OTT-based voice calling services does not pose a sufficiently strong constraint on the setting of mobile termination charges.

2.4.9 Conclusion on demand-side substitutability

The MCA considers that the provision of mobile voice call termination by a particular MNO and, by extension, the setting of relevant termination charges cannot be constrained by consumers and other network operators. This situation is not expected to change within the timeframe of this review.

The calling party does not have at its disposal substitutes which are effective at posing an effective constraint on the setting of mobile voice call termination charges.

At a wholesale level, networks operators have no alternative but to buy termination from the MNO hosting the number of the called party.

2.5 Supply-side substitutability

In this case, the analysis focuses upon whether existing or potential suppliers would be able to switch production into the supply of mobile voice call termination services, in response to a small but significant increase in price.

This must happen fast enough in order to prevent the price rise of the product from being profitable for the firm implementing such a strategy.

However, no service provider or network operator could readily substitute the supply of call termination on a mobile network to which the called party is subscribed.

Calls can only be terminated on the network hosting the mobile number of the called party. No network operator can effectively influence the called party in the selection of the network operator hosting
Market review – Wholesale voice call termination on individual mobile networks

his/her mobile number. Therefore, in the current circumstances, supply-side substitution for mobile termination services is not possible.

2.6 A distinct termination market

As stated earlier, MNOs provide access, call origination and call termination as a cluster of services over the same network. However, these services differ in terms of the product characteristics. For example, wholesale mobile call origination guarantees the ability of retail customers to make voice calls and use other mobile related services such as SMS. Meanwhile, wholesale mobile termination enables retail customers to receive calls.

With respect to pricing, an increase in price for wholesale access and call origination services can be competed away in the market, with the calling party having the possibility to switch service provider in case he/she is not satisfied with the quality and/or the price of an outgoing call. Also, if a hypothetical monopolist were to increase the price of, say, pre-paid services, alternative or new operators may consider offering the service at the new price, thus rendering the monopolist’s actions a non-profitable strategy.

On the other hand, wholesale termination services offered by a particular MNO cannot be provided elsewhere. This means that, absent regulation, network operators offering termination services have an incentive to increase termination charges to boost revenue and subsequently increase the costs of retail customers subscribed to competing operators, without any direct and/or indirect constraints influencing their decision.

It is therefore considered that the provision of wholesale termination services does not share the same pricing and competitive conditions as the provision of wholesale access and origination services and that the overall conditions of supply and demand for the two services differ significantly.

Hence, the conclusion that the provision of mobile voice call termination services forms a distinct wholesale market for each MNO providing the service in question.

2.7 Draft decision on market definition

In respect of the analysis presented above, and in accordance with competition law principles, the MCA identifies the provision of wholesale voice call termination on individual mobile networks in Malta as relevant for the purposes of ex ante regulation.

It is noted that operators submitting feedback to the relevant consultation document did not dispute any findings related to the market definition in the current review.

To this effect, the MCA identifies three distinct mobile termination markets in Malta:

1. wholesale voice call termination provided by Vodafone Malta Ltd;
2. wholesale voice call termination provided by GO plc.; and
3. wholesale voice call termination provided by Melita plc.

The three markets include wholesale voice call termination services provided over both 2G, 3G and/or 4G network equipment.
The current conditions of competition are deemed to be geographically homogenous in the identified wholesale markets. The markets in question are indeed subject to a national pricing constraint, as all authorised or licensed MNOs offer mobile termination services on a nationwide basis. MNOs also charge geographically uniform mobile termination charges, without differentiating by reference to geographic location.

The geographical scope of each relevant market therefore corresponds to the nationwide physical coverage of the respective MNO comprising it.
3 Market analysis

Having identified the relevant markets that comprise mobile wholesale voice call termination in Malta, the next step is to analyse whether any undertaking holds a position of significant market power (SMP) in the relevant market, as defined in and required by regulation 5 of the ECNSR (Article 16 of the Framework Directive).

3.1 Criteria used in determining SMP

For the purposes of this assessment, a number of criteria are investigated to determine whether the identified wholesale markets are subject to potential market shortcomings.

The criteria taken into consideration are the following:

- distribution of market shares;
- potential competition;
- the extent of countervailing buyer power (CBP); and
- the scope for price competition.

The analysis takes full account of the Commission’s guidelines on market analysis and the assessment of SMP under the Community regulatory framework for electronic communication networks and services, as well as the MCA’s market review methodology.

3.1.1 Distribution of market shares

One of the criteria used to identify if dominance exists within a market relates to the market share of an undertaking. However, the market share criterion by itself is not sufficient to conclude that an undertaking enjoys SMP in a particular market.

In the provision of wholesale mobile termination services the MCA has already outlined that each MNO operates within a separate wholesale market and therefore has a 100% market share in that market. This is because mobile termination services provided by say, Operator A, are provided exclusively on the network of this operator. Those purchasing wholesale termination from Operator A have no other alternative than to purchase termination from this operator if the number of the called party is hosted by Operator A.

This means that GO, Melita and Vodafone have a 100% market share of termination traffic on their own network.

Each MNO is a monopolist when terminating calls on its own network. Likewise each MNO is a monopolist in the setting of its own termination charges and, absent regulation, MNOs will use their monopoly position in the market to set termination charges that are above the competitive level.

3.1.2 Potential competition

As mentioned earlier, mobile voice termination services are governed by the CPP arrangement and no opportunity exists in the provision of this service for supply-side substitutability. Network operators, new and existing, have no other alternative but to purchase voice call termination minutes from the MNO to which the called party is subscribed.
Technical barriers and the CPP principle makes the terminating MNO dominant over other operators. Therefore the number of players present in the market does not have a constraining effect behaviour on the setting of fixed voice call termination charges.

This again implies that MNOs are free to set wholesale termination charges above competitive levels, in order to maximize revenues and at the same time increase the cost of other network operators when purchasing termination.

### 3.1.3 Countervailing buyer power (CBP)

Customers with a strong CBP would tend to restrict the undertakings’ ability to exercise market power and to act independently of their customers. In effect, when customers can exert significant pressure on the supplier of a good or service, they can effectively stop an attempt to increase prices by service providers.

The extent of CBP would however also depend on whether customers are in a position to discontinue the service being provided by a particular supplier and switch to alternative providers, within a short period of time.

There are two economic agents that have an interest in keeping mobile termination charges as low as possible. These are end-users (the retail consumers) paying for call completion and network operators (the wholesale customers) purchasing termination from local MNOs.

The assessment of CBP shall therefore determine the ability of these economic agents to exercise market power and to constrain the setting of mobile termination charges by local MNOs. The stronger the CBP of end-users and network operators, the more MNOs would be restricted from increasing MTRs.

The following sub-sections will therefore assess the following:

- The CBP of consumers at the retail level
- The CBP of MNOs at the wholesale level

**The bargaining position of the retail customer**

At a retail level, the effectiveness of the CBP depends on the influence consumers have on the setting of MTRs.

Given the CPP pricing mechanism for termination, the called party would have little to no interest as to what MTR is charged by its MNO, given that this would be fully borne by the calling party. Also, generally speaking, consumers would have more interest in the price of outgoing calls rather than the cost of termination. This reasoning holds particularly for the calling party.

Therefore, retail customers would not be in a position to pose sufficient CBP on the setting of local MTRs.

**The bargaining position of the wholesale customer**

Another consideration is to what extent network operators are able to use their bargaining power when purchasing voice call termination from MNOs, such as to influence the setting of MTRs.

It is relevant to underline here that local wholesale customers of mobile voice call termination include fixed network operators (FNOs), namely the incumbent GO and Melita, and MNOs themselves, namely
Market review – Wholesale voice call termination on individual mobile networks

GO, Melita and Vodafone. There are other smaller FNOs, including Ozone Ltd and Vanilla Telecoms Ltd. Meanwhile, Vodafone is also offering fixed telephony services. Redtouch and VFC Mobile classify as reseller MVNOs, which generally buy minutes of use from the licensed MNO and then resell minutes of usage to their customers. MVNOs would be constrained to use the same mobile termination charges being charged by their host MNO.

For the purposes of assessing the extent of CBP exerted by network operators on the setting of mobile termination charges in Malta, three scenarios are taken into account.

i. **The fixed-to-mobile (FTM) scenario**

The main consideration in this section is whether FNOs, such as GO and Melita, are in a sufficiently strong bargaining position as to influence the setting of mobile termination charges in a hypothetical scenario where MNOs are not subject to regulated MTRs.

A method by which an FNO can practice its bargaining power would be by threatening not to provide interconnection to MNOs. For example, the incumbent FNO may hypothetically refuse/deny interconnection with a MNO implementing what are deemed by the said FNO as excessive mobile termination charges, unless these are brought down to a reasonable level. However, due to regulatory intervention and the imposition of the interconnection obligation on the incumbent FNO, this course of action is not possible. Moreover, universal service obligations decisions taken by the MCA in 2009 and once again in 2015 oblige the incumbent i.e. GO to provide a universal service and thus an end-to-end connection, regardless if a call is terminating on a FNO or on a MNO.

It is also worth noting that fixed-to-mobile termination (FTM) minutes only catered for 11.9% of all voice call minutes terminating on local MNOs. This proportion is relatively unchanged to that prevailing in 2013. This suggests that FNOs as a purchaser of mobile cannot exert strong CBP on the setting of MTRs. Thus, without regulation, MNOs would be free to set the prices of FTM charges and set them at a rate higher than what is considered to be competitive, thereby leading to high costs for FNOs at the wholesale level and thus to high prices for FTM calls at the retail level.

<table>
<thead>
<tr>
<th>Minutes terminating on MNOs</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTM traffic share</td>
<td>11.09%</td>
<td>10.14%</td>
<td>9.87%</td>
<td>10.26%</td>
<td>11.78%</td>
</tr>
<tr>
<td>On-net MTM traffic share</td>
<td>64.33%</td>
<td>66.19%</td>
<td>65.21%</td>
<td>63.10%</td>
<td>54.98%</td>
</tr>
<tr>
<td>Off-net MTM traffic share</td>
<td>20.97%</td>
<td>21.19%</td>
<td>22.55%</td>
<td>25.40%</td>
<td>31.53%</td>
</tr>
<tr>
<td>International-to-mobile traffic share</td>
<td>3.60%</td>
<td>2.48%</td>
<td>2.37%</td>
<td>1.25%</td>
<td>1.71%</td>
</tr>
</tbody>
</table>

### Table 4: Minutes terminating on MNOs – market share by type of traffic

The MCA therefore considers that FNOs do not have sufficient CBP to constrain the setting of MTRs.

ii. **The mobile-to-mobile (MTM) scenario**

As seen in table 4 above, roughly 87% of calls originating from local MNOs terminate on other MNOs. Hence, the main consideration here is whether, absent regulation, MNOs are in a sufficiently strong bargaining position as to influence an increase in mobile termination charges by their competitors.
We have already established that all MNOs, whether new or existing, would have a monopoly position in the supply of mobile termination services over their own network. Therefore, without regulatory intervention, MNOs would have an incentive to set MTRs at levels considered to be uncompetitive. Since the CPP principle is in place, MNOs know that high termination rates would not have an impact on their own clients but rather an impact on calls coming in from other FNOs and MNOs i.e. off-net calls. In turn, other MNOs would have to react to the new termination rates set by their competitors and themselves raise their own termination charges.

By raising termination rates, MNOs would also have the opportunity to use their increased revenue margins to further improve their position in the market. An operator may use its position to discriminate and charge higher rates for off-net calls on the retail market and to use excess revenue from termination to implement cheaper on-net mobile-to-mobile call rates\(^{18}\), thus resulting in a more evident price differential between on-net MTM calls and off-net MTM calls. Such a price differential would in turn contribute to higher turnover levels and wider profit margins for the MNO implementing discriminatory termination charges.

It is also relevant to underline that no network operator is in a position to constrain mobile termination charges by refusing / delaying / blocking interconnection. This is because all MNOs are required to have interconnection agreements in place with existing operators and to negotiate similar interconnection agreements in good faith with new entrants. As mentioned earlier, the only way MNOs competing with the MNO implementing an increase in termination charges may react by increasing their own termination rates, with no direct and indirect factors that could effectively pose a constraint on their pricing behaviour.

It is therefore considered that, absent regulation, MNOs have the incentive to raise mobile termination charges but cannot pose CBP in the setting of mobile termination charges implemented by rival operators.

### iii. The international-to-mobile scenario

The MCA also notes that there are a number of international calls originating from other jurisdictions and terminating on local MNOs.

The share of such traffic terminating on local MNOs stood at 1.7% in 2017. It is therefore considered that, absent regulation, international-to-mobile traffic does not pose CBP on the setting of MTRs by local MNOs.

It is also relevant to point out that there is no international wholesale operator or group of operators that could effectively constrain local mobile termination charges to a level commensurate with a competitive outcome.

### Conclusion

Overall, the MCA considers that, absent regulation, local and international FNOs and MNOs cannot exert CBP as to constrain the setting of MTRs by local MNOs.

---

\(^{18}\) It may be argued here that, with the emergence of lower on-net call tariffs and increasing on-net traffic volumes, MNOs could have an incentive to push down MTRs, absent regulation, so as to lower the cost of on-net calls even further. Nevertheless, it is considered that MNOs would rather keep high mobile termination charges for other MNOs in order to compensate lower on-net revenue streams with higher off-net revenues.
3.1.4 The scope for price competition

MNOs do not face any competition over termination on their own networks. Moreover, due to the CPP principle, the called party would have no interest in influencing the mobile termination charge as this is borne by the calling party. Meanwhile, the calling party cannot avoid the termination charge implemented by the MNO hosting the called party. Therefore, absent regulation, MNOs would have an incentive to charge an excessive price for call termination over their own networks. Such an action would in turn trickle down and impact callers negatively at a retail level, by way of higher mobile telephony call rates.

Therefore, absent regulation, MNOs would have an incentive to implement MTRs that are above the competitive level. This explains why mobile termination charges have been subject to regulatory intervention by the MCA. The latest development from a regulatory standpoint came into force in 2014, when the MCA started applying the Pure BU-LRIC cost accounting model in the setting of wholesale mobile termination charges. As observed from chart 1 (in section 1.4.2), local MTRs were down by 97% between 2014 and 2017, from €0.131 per minute in June 2014 to €0.004 per minute of mobile voice communication at the end of 2017.

The MCA recognizes that the reduction of MTRs at a wholesale level would not necessarily translate into a similar (or proportional) decline of retail mobile call rates. Nevertheless, workings carried out by the MCA based on findings with respect to the average rate per minute of mobile voice communication, suggest that falling MTRs facilitate a drop in retail mobile prices.

Chart 6: Average rate per minute of mobile communication at a retail level

Chart 6 shows that the average per minute rate of mobile voice communication has steadily dropped over the years, from €0.090 at the end of 2013 to €0.060 at the end of 2017. This consistent decline in the average rate per minute (ARPM) of mobile voice communication also contributed to higher mobile telephony traffic volumes, with the number of outgoing voice call minutes per subscription increasing from 1,179 in 2013 to 1,459 in 2017.
Market review – Wholesale voice call termination on individual mobile networks

The MCA believes that the regulation of MTRs facilitated the drop in the ARPM of mobile communication and the corresponding rise in mobile traffic volumes per subscriber.

3.2 Responses to consultation on the SMP assessment and MCA reactions

The MCA’s main finding at market analysis stage is that, absent regulation, local MNOs can set mobile termination charges that are above the competitive level given that these MNOs enjoy SMP in their respective mobile termination market. Vodafone Malta outlines two main issues to build its case against the MCA findings.

3.2.1 Usage of OTT-based services

Vodafone Malta contends this finding, emphasizing on how OTT-based services are ‘now virtually substitutable to traditional’ mobile calls and that these services are posing a ‘sufficiently strong constraint on the setting of mobile termination charges’. In this regard, Vodafone Malta says that the MCA needs to carry out a ‘more in-depth analysis to truly understand the impact that these market trends are having on this market’.

The MCA underlines that it carries out regular perception surveys, addressed to both residential and business users, to determine the way end-users perceive OTT-based services as a substitute to traditional telephony services and the extent of usage of OTT-based applications for voice telephony and OTT-based messaging services. In view of the latter point, the MCA underlines that the 2017 Consumer Perception Survey for mobile telephony\(^\text{19}\) has shown that the local mobile telephony subscriber base is split in half when it comes to access of OTT-based services. 51% of the local mobile telephony subscriber base does not use OTT-based services. Meanwhile, 49% does use OTT-based services. In the case of business users having a mobile subscription, the share of those using OTT-based services falls to 41%, as clearly emerges from the MCA Business Perceptions Survey carried out in 2017\(^\text{20}\).

82% of mobile telephony subscribers making use of OTT-based services say they do so a daily basis. Of significance to the current review is that this category of end-users is more likely to consider OTT-based messaging services such as Whatsapp and Messenger to be substitutable to traditional SMS services. The extent of substitutability is not deemed to be so evident or not evident at all in the case of voice calling, given that just 35% of those that use OTT-based services say that this is always the case whilst an additional 34% say that this is sometimes the case.

Therefore, the MCA considers that although usage of OTT-based services has gone up consistently over the last few years, it is not reasonable to argue at this juncture that usage of OTT-based voice calling services offers a strong constraining effect on the setting of mobile termination charges.

Vodafone Malta also makes reference to the fact that publically available wi-fi hotspots is effectively driving ‘usage of VoIP’ which is ‘an effective demand side substitute for a mobile voice call for a growing number of customers’. The MCA however notes that the MCA Consumer Perceptions Survey for mobile telephony carried out in 2017 shows that just around 29% of the local mobile telephony users effectively access these publically available wi-fi hotspots. Hence, even assuming that all of these


end-users make use of OTT-voice calling services (which is in reality not the case), one cannot reasonably argue that access to publicly available wi-fi hotspots would constrain the setting of mobile termination charges.

Vodafone Malta also argues that ‘mobile termination cannot continue to be seen in isolation from the bundle of mobile services that every operator provides together with other services it has thereby leveraging its position in one market to strengthen its position in another’.

The MCA however notes that Vodafone’s argument does not take into account the fact that end-users in Malta clearly prefer to purchase the mobile telephony service as a stand-alone product. Only few end-users are purchasing the service in a bundle with other electronic communications services. In fact, just around 9% of mobile telephony subscriptions at the end of 2017 were reportedly purchased in a bundle. Effectively, local end-users tend to personalize their mobile subscription according to their preferences and daily requirements. Meanwhile, the purchase of a bundle including different electronic communications services is typically seen from the perspective of a household and thus including a group of services that meet the preferences and requirements of several people living in a household or in a particular commercial premises.

The MCA therefore considers that the limited take-up of the mobile telephony service in a bundle does not effectively influence the behavior of MNOs when these are setting their mobile termination charges.

### 3.2.2 FTM retail call rates

Vodafone claims that the consultation document ‘does not provide information on the movement of fixed to mobile (FTM) retail rates’. Vodafone Malta adds that demand for these type of calls ‘seems practically inelastic’ and that there has been ‘an almost complete lack of pass-through of the MTR reductions’ for these type of calls from the incumbent.

The MCA recalls that the effects of a FTM scenario are discussed in section 3.1.3 of this document. The main issue outlined by the MCA in this respect is that FTM calls constituted 11.78% of all calls terminating on local MNOs in 2017, relatively unchanged from the corresponding figures recorded in 2013.

With regards to the ‘lack of pass-through of the MTR reductions’ for these type of calls, the MCA reiterates that regulatory intervention has brought down mobile termination charges over the years. When it comes specifically to FTM calling, the MCA notes that the mobile termination charges that are in force are the same for MTM calling. It is noted that MTRs regulated by the MCA account for only a small portion of the cost incurred by end-users when making calls and that it is therefore very difficult to observe a one-to-one decline in termination charges and subsequently calling rates. The MCA’s regulatory oversight alongside service-based and infrastructure-based competition has however contributed significantly to the consistent drop in both retail fixed and mobile prices observed in recent years.

### 3.3 Draft decision on the SMP assessment

There are no sufficient constraints that can effectively influence the setting of MTRs by MNOs at a competitive level. The MCA therefore considers that each MNO is designated with SMP in its respective wholesale mobile termination market.

The MNOs to be designated with SMP are the following:
1. Vodafone Malta;
2. GO plc.; and

The SMP designation is supported by a number of findings, namely that:

- Each MNO holds a 100% share in terms of voice call traffic terminating on its own network and is therefore deemed to be a monopolist for termination on its own network.

- No CBP can be exercised on the setting of MTRs. Due to the CPP principle, the called party is not concerned about the costs that the calling party incurs when calling a third party. In addition, network operators have no alternative for terminating a mobile call other than the MNO to which the called number belongs.

- Absent regulation, MNOs have a strong incentive to price discriminate when charging for termination and thus to foreclose markets.

- Mobile termination charges are likely to rise in the absence of regulatory intervention and may result in price distortions and allocative inefficiencies.

- In a scenario where MNOs can freely set high termination charges, the scope for price competition is reduced to the detriment of retail customers.
4 Regulatory approach

GO, Vodafone Malta and Melita enjoy SMP in the provision of the wholesale voice call termination on their own individual mobile networks. As a result, the MCA is regulatory intervention in the identified markets to prevent the designated SMP operators from exploiting their position of dominance.

4.1 Structure of the chapter

Section 4.2 underlines the legal provisions guiding the MCA’s regulatory approach.

Section 4.3 recalls the potential risks to competition arising from the SMP position of MNOs with respect to the provision of wholesale voice call termination.

Section 4.4 lists the regulatory obligations that are currently enforced on GO, Vodafone, and Melita in the markets under investigation.

Section 4.5 highlights upon the obligations that are to be imposed on the MNOs identified with SMP in the current review.

4.2 Background to regulatory approach

In accordance with regulation 11(1) of the ECNSR, where an operator is found to have SMP on a relevant market, the MCA is obliged to impose on such an operator appropriate regulatory obligations or to revise such obligations where they already exist.

The MCA is to ensure that the selected remedies are in accordance with regulation 11(4) of the ECNSR and article 8.4 of the Access Directive, in that these are:

- based on the nature of the competition problems that have been identified;
- proportionate and justified, in light of the objectives laid down in article 4 of the ECRA; and
- only be imposed following consultation, in accordance with regulation 7 of the ECNSR and article 4A of the MCA Act.

4.3 Potential competition problems

The MCA identifies a number of competition issues that may arise due to operators having SMP and exerting their dominance in the market under investigation. If the provision of wholesale mobile voice call termination is left unregulated, MNOs could participate in a number of practices, as outlined below.

4.3.1 Excessive Pricing

Due to the CPP principle, the called party would have no interest in the rates which the calling party would have to pay to make a call. As a result, an MNO would be encouraged to set termination rates that are above what is considered to be competitive.

Each MNO would be further enticed to practice excessive termination pricing especially with regards to calls received from alternative MNOs and FNOs, in order to increase the inflow of termination revenues and subsequently cross-subsidise its cheaper on-net MTM call tariffs. Moreover, since all
network operators are obliged to provide interconnection, all operators would be obliged to purchase termination irrespective of the rates being charged.

4.3.2 Pricing Discrimination

A MNO could charge itself or its subsidiary a lower termination than it charges to other network operators. Through these price discriminatory practices a MNO could ultimately foreclose the retail market from its competitors. It has already been argued that, for example, a MNO could set high off-net termination charges in order to cross-subsidise cheaper on-net MTM call rates. In this sense, other network operators may find it more difficult to compete in the retail market given that these would in such circumstances be faced by much higher costs for completing off-net calls to the MNO charging excessively high off-net termination charges.

4.4 Obligations currently in place

In its 2014 Decision, the MCA imposed the following obligations on Vodafone, GO and Melita:

- an obligation to be transparent in relation to interconnection and/or access and to make public accounting information, technical specifications, network characteristics, terms and conditions for supply and use, and prices;
- an obligation to ensure non-discrimination and thus ensure that the SMP operators do not show undue preference or undue discrimination in the provision of interconnection services;
- an obligation to ensure access to third parties whilst also negotiating in good faith with undertakings requesting access and not to withdraw access from any facilities already granted;
- an obligation to ensure accounting separation in relation to specified activities related to interconnection and/or access (thus enabling transparency in the setting of wholesale prices and internal transfer prices); and
- an obligation to implement price control and cost orientation practices.

4.5 Ex ante regulatory obligations proposed at consultation stage

Based on the evidence supplied at market analysis stage, the MCA is proposing to maintain its current regulatory decisions in the identified wholesale mobile voice call termination markets. These regulatory obligations are outlined below.

4.5.1 Access Obligation

In accordance with regulation 15(1) of the ECNSR the MCA may impose obligations on operators to meet requests for access and/or use of specific network elements and associated facilities. The authority can impose such obligations in situations in which denial of access would create scenarios deemed to be unsustainable and would ultimately result in a situation where the consumers would be at a loss.

Therefore, as stipulated by this regulation, this authority is obligating all 3 operators found with SMP; GO, Vodafone and Melita to ensure that there is end-to-end connectivity amongst themselves and other networks.
Market review – Wholesale voice call termination on individual mobile networks

These aforementioned MNOS would be obliged to:

- give third parties access to their infrastructure for the purpose of voice call termination on their own network and interoperability of network services, whether under the form of interconnection, or access to associated facilities, or services for the purposes of interconnection;
- meet reasonable requests for access to and the use of their infrastructure for the purposes of providing voice call termination (interconnection) services in a fair, reasonable and timely manner;
- publish a reference interconnection offer (RIO), which is also subject to the transparency and non-discriminatory obligations;
- negotiate in good faith with undertakings making new requests for access and interconnection services, whereby all such requests are to be met upon the conditions covering fairness, reasonableness and timeliness; and
- Continue providing access to facilities already granted.

The decision to provide access and interconnection services shall remain subject to scrutiny by the MCA in accordance with its powers at law and reserves the right to amend the obligation following consultation with stakeholders.

4.5.2 Non-discrimination

A non-discrimination obligation would ensure that the designated SMP operators do not exhibit discriminatory behaviour in relation to the provision of wholesale termination services, in such a way as to place themselves or any of their subsidiaries in a more favourable position than a competitor. When providing other undertakings with wholesale termination services on their own network.

The imposition of a non-discrimination obligation is therefore intended to avoid a situation whereby an SMP operator would have the ability to exploit its market power in order to discriminate when providing termination services to other operators.

To this effect and in accordance with regulation (13) of the ECNSR, Melita, GO and Vodafone shall:

- apply equivalent conditions in equivalent circumstances to other undertakings providing equivalent services; and
- provide services and information to others under the same conditions and of the same quality as they provide for their own services, or those of their subsidiaries or partners.

4.5.3 Transparency Obligation

The relevance of the transparency obligation has to be seen in the context of providing support to other regulatory remedies such as the obligations of access and non-discrimination.

With this obligation in place, operators are bound by transparency and the MCA would be able to monitor any behavior that may be deemed to be anti-competitive with respect to the terms and conditions of services being offered by MNOs in relation to access and interconnection.
Moreover, with this obligation in place, all operators would have sufficient information to which they would not otherwise have access. For example, the transparency obligation would assist market entry by helping MNOs comply with elements of the obligation of non-discrimination and in so doing speed up negotiation for access and interconnection.

In accordance with regulation 12 of the ECNSR, Melita, GO and Vodafone shall be subject to transparency obligations and are obliged to make public specified information, such as accounting information, technical specifications, network characteristics, terms and conditions for supply and use, including any conditions limiting access to and, or use of services and applications, and prices where applicable.

To this effect, the said MNOs shall be requested to:

- make public information concerning call termination rates, network and technical specifications, terms and conditions for supply and use, and accounting information, as required by the MCA;
- deliver services of equivalent quality to all operators;
- provide sufficient information on relevant matters, including the processes that alternative operators would not otherwise have access to, in order to assist with their entry into the market; and to
- publish a RIO, which shall be sufficiently unbundled to ensure that undertakings are not required to pay for facilities that are not necessary for the services requested, giving a description of the relevant offerings broken down into components according to market needs, and the associated terms and conditions including prices.

In accordance with regulation 12(4) of the ECNSR, changes may be imposed by the MCA to RIOs, in order to give effect to the obligations imposed under the ECNSR. The MCA may also specify the precise information to be made available, the level of detail required, and the manner of publication.

4.5.4 Accounting Separation

The obligation of accounting separation would ensure that operators with SMP keep separate accounts to reflect, as closely as possible, the performance of separate business activities that they operate. The imposition of this obligation would also enable the MCA to make certain that the costs allocated by an operator to an individual mobile service are the actual costs being incurred to provide the respective service.

The MCA is aware that MNOs with SMP are able to cross-subsidise between services through an internal transfer pricing mechanism which is distorted in favour of their own retail operations to the detriment of existing or potential competitors, and to the disadvantage of end users purchasing other services. This is more so since all MNOs, which were identified as having SMP, offer more than one type of service in a bundle. In this scenario, accounting separation would preclude cross-subsidisation and would thereby avoid any inefficient pricing strategies that favour discriminatory behaviour. Accounting separation would therefore provide improved transparency in the accounting
arrangements of operators and would also encourage the setting of MTRs in an efficient, transparent and non-discriminatory manner.

The MCA also considers that the accounting separation obligations would ensure that the accounting arrangements of operators are transparent to such an extent that facilitates the verification of compliance in respect of services that the MNOs provide to other operators.

In accordance with regulation 14 of the ECNSR, Vodafone, Melita and GO shall be obliged to:

- make transparent wholesale retail prices and internal transfer prices to the MCA, whenever such information is requested by the said Authority, without prejudice to the generality of regulation 14(2); and to

- make available accounting records to the MCA, including data on revenues received from third parties, whenever such information is requested by the said Authority, without prejudice to the provision of articles 4(10) to (14) of the MCA Act.

Unless otherwise directed by the MCA, Vodafone, GO and Melita shall keep the existent methodology on how to implement accounting separation\textsuperscript{22} and the same level of accounting separation.

4.5.5 Price control

Following the analysis carried out in this review and the nature of competition problems identified, the MCA considers that MNOs do not have an incentive to set termination charges at the competitive level. The MCA is therefore proposing to maintain the price control obligation on Vodafone, GO and Melita in accordance with regulation 16 of the ECNSR. The price control obligation would ensure that the mobile termination charges are set at levels corresponding to the costs of an efficient operator. Cost oriented mobile termination charges are in turn essential to maintain low and affordable retail call rates for retail customers.

In accordance with regulation 16(2) of the ECNSR, the price control mechanism would therefore serve to promote efficiency and sustainable competition and to maximize consumer benefits.

The MCA reserves the right to amend the level of control in accordance with its powers at law, following consultation with stakeholders. The use of the pure LRIC model for the calculation of mobile termination charges in Malta is necessary to ensure efficient cost-oriented mobile termination charges in compliance with the Commission's Recommendation on the regulatory treatment of fixed and mobile termination rates.

4.5.6 Cost accounting

The cost accounting obligation would enable the MCA to monitor the costs incurred by MNOs in relation to the provision of termination services on an ongoing basis. This obligation would therefore provide the MCA with the necessary oversight to ensure that MNOs apply fair, objective and transparent methodologies in allocating costs to the identified regulated products. It would also ensure price controls in the market and prevent potential market failure.

\textsuperscript{22} The methodology on how to implement the accounting separation obligation has already been outlined in other MCA decisions, published in 2002 and 2009. This notwithstanding, the MCA reserves the right to establish or alter the details of the obligation of separated accounts, following appropriate consultation with all stakeholders.
Market review – Wholesale voice call termination on individual mobile networks

In accordance with regulation 16 of the ECNSR, Vodafone GO and Melita shall be required to supply detailed information to the MCA regarding the allocation of costs onto different services.

The methodology employed for the cost accounting obligation is already set by virtue of an MCA decision concerning the requirements imposed on operators designated with SMP status.

4.6 Responses to consultation on the MCA’s regulatory approach and MCA reactions

The main submissions put forward by Vodafone Malta and GO with respect to the MCA’s ex ante regulatory approach to the provision of mobile voice call termination in Malta relate to the following:

- the need to provide “access to associated facilities, or services for the purposes of interconnection”;
- the need for the imposition of the cost accounting and accounting separation obligations given the implementation of the current pure LRIC price control model, which yields the current MTR; and
- visibility to the pure LRIC model being used to calculate the MTR.

4.6.1 The obligations of cost accounting and accounting separation

Following submissions by Vodafone Malta and GO in view of the proposed obligation of accounting separation, the MCA is hereby giving notice that it will be removing this obligation from the MNOs identified with SMP in this market review.

The MCA clarifies therefore that it will maintain its approach of ex ante regulatory intervention in the identified mobile termination markets by imposing a suite of remedies on SMP market players, but removing the accounting separation obligations that were previously placed upon GO, Melita and Vodafone Malta.

The withdrawal of the accounting separation obligation comes in the context of a decision taken by the MCA to implement its own Bottom-Up Cost Model (the ‘BUCM2 model’) dating from 2012. The BUCM2 model set mobile termination rates at levels corresponding to the costs of an efficient operator, based on a bottom-up long-run incremental cost mechanism, thereby allowing for efficient, fair and reasonable termination charges. This reasoning is in line with the EU Commission Recommendation on the Regulatory Treatment of Fixed and Mobile Termination Rates in the EU, which states that ‘NRAs should set termination rates based on the costs incurred by an efficient operator’. Moreover, it is worth noting that the European Commission is also in the process of assessing the cost of mobile termination services in line with the agreement of the provisions in the European Electronic Communications code.

Vodafone Malta also states that the cost accounting obligation is ‘an excessive burden on operators’, whilst GO claims that this obligation should be ‘in tune with the stated principles of objectivity and proportionality.’


The MCA may amend the methodology in accordance with its powers at law and in line with EU obligations and recommendations, following appropriate consultation with all interested parties.

However, the MCA remains of the view that the imposition of the cost accounting obligation, together with price control, is essential to bring local termination charges down to economically efficient levels. The MCA also notes that NRAs and MNOs were requested to provide detailed information to the European Commission for the purpose of assessing the cost of mobile termination services in line with the provisions agreed in the EECC, which requires undertakings to abide by the obligation to keep in place their cost accounting system. The MCA considers that the cost accounting obligation does not constitute an unreasonable burden on MNOs, given that all undertakings are currently under the obligation to support such a system by virtue of the previous MCA decision concerning the provision of wholesale mobile voice call termination.

The MCA therefore reiterates its view that the obligation of cost accounting is required and justified in the circumstances and needs to be maintained.

### 4.6.2 The need to provide “access to associated facilities, or services for the purposes of interconnection”

On the imposition of an access obligation, Vodafone Malta argues that although it ‘can accept that operators should have an obligation to interconnect with each other’, it considers the obligation to provide “access to associated facilities, or services for the purposes of interconnection” as a ‘disproportionate measure especially with the pure LRIC MTR that is in place which is the lowest in the EU.’

The MCA reassures operators that, in proposing the imposition of the access obligation, it has given due consideration to the burden that MNOs carry in complying with this remedy.

The access obligation imposed in this decision is consistent with the current access obligation, which also stipulates that SMP undertakings are obliged to provide access to termination services, whether under the form of interconnection or access to associated facilities or services specifically for the purpose of ensuring interconnection.

The obligation to provide access under this market effectively means that SMP operators are required to give third parties access to specified network elements and, or facilities when reasonable requests for such access are made, as well as negotiate in good faith with undertakings requesting access for the purpose of providing termination (interconnection) services. This obligation is therefore not disproportionate but simply intended to cover all aspects of the interconnection agreement between operators to ensure end-to-end connectivity. These aspects are generally covered in the existing Reference Interconnection offer published by all SMP operators.

MNOs should ensure that all reasonable requests for access for the purpose of termination services are expedited in a fair, reasonable and timely manner.

### 4.6.3 Visibility to pure LRIC model

Local MNOs shall maintain the mobile termination rate as set by the MCA on the basis of the BUCM2 model, which rate has been specified in the MCA Decision published in December 2012\textsuperscript{25}. This rate has been established in line to the principles set forth in the 2009 EC Recommendation on fixed and mobile termination rates.

\textsuperscript{25} See footnote 24.
Market review – Wholesale voice call termination on individual mobile networks

The current regulated termination rates shall remain in force, meanwhile the MCA intends to closely monitor and participate in the process whereby the EU Commission is expected to implement a common mobile termination rate in Europe (planned for 2020) based on parameters yet to be formalized, following the political agreement concerning the EECC 5th of June 2018\textsuperscript{26}.

The MCA will continue to monitor the situation and will account for any significant changes in subsequent analyses when and if required.

4.7 Draft Decision on the MCA’s ex ante regulatory approach

Based on the above, the MCA is to impose of the following regulatory obligations on MNOs designated with SMP in this market review:

- Access;
- Transparency;
- Non-discrimination; and
- Price control and cost accounting.

These remedies are based on the nature of the competition problems that have been identified and are considered proportionate and justified.

The MCA considers that it is sensible to keep a close watch on the progress of the wholesale mobile termination markets in Malta.

To this end, the MCA intends to analyse market trends and developments on an ongoing basis, and remains committed to issue a new market analysis at any point in time in response to a significant change in market conditions.

The MCA, in accordance with its powers at law, is also reserving the right to change any of the above mentioned regulatory obligations following changes in the market structure.

\textsuperscript{26} This agreement still needs to be formally approved by the European Parliament and Council plenaries.