Wholesale Broadband Markets

Identification and Analysis of Markets,
Determination of Market Power and Setting of Remedies

Consultation Document

Document Number:	MCA/C/12-0898
Date:	15th June 2012

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Executive summary

In accordance with Article 9 of the Electronic Communications (Regulation) Act, the Malta Communications Authority (MCA) is obliged, amongst other things, to carry out reviews of competition in communications markets to ensure that regulation remains appropriate in the light of changing market conditions.

This review sets out the MCA's proposal for identifying a relevant product market and making a market power determination for the following wholesale markets:

- the market for unbundled access, and
- the wholesale broadband access market.

For the purposes of this analysis the MCA has commissioned Analysys Mason to assist it in conducting its market review of the broadband markets.

Submissions to this consultation document may be forwarded to the MCA within the period ending on the **3rd September 2012**. Arrangements for submitting comments are explained in Section 7.

As required by Regulation 7 of the Electronic Communications Networks and Services (General) Regulations, 2011 (Article 7 of the Framework Directive), the MCA's proposals will be notified to the European Commission (the 'EC' or the 'Commission') and to other National Regulatory Authorities (NRAs) after the end of this national consultation.

1.1 Summary of proposals on the market for unbundled access

Definition of relevant market

On the basis of substitution analysis of relevant products, and in line with the Commission's recommendations, the MCA concludes that the market for unbundled access is national in scope and:

- includes all unbundled access (including shared access) products and services provided via the existing broadband copper network (including access to the sub-loop)
- includes unbundled access services over fibre

- excludes wholesale broadband access services
- excludes wholesale services provided over cable.

Assessment of market power

The MCA considers that GO enjoys significant market power (SMP) in the market for the provision of wholesale unbundled access to the local loop services.

This conclusion is supported by a number of factors including GO's position as sole provider in the market, its vertical and horizontal integration, its economies of scale and scope, and the lack of countervailing buyer power.

Regulation and remedies

The MCA proposes to impose the following remedies on GO:

- **Access**:
  - continuation of the existing access remedies for access to the local loop and to the sub-loop, including related facilities (duct access, dark fibre or Ethernet capacity for sub-loop unbundling backhaul) and co-location
  - *new remedy on fibre*: obligation to provide fibre unbundling if and when fibre to the home (FTTH) / fibre to the building (FTTB) are deployed.
- **Non-discrimination**:
  - application of equivalent conditions in equivalent circumstances to other undertakings providing equivalent services
  - provision of services and information to others under the same conditions (including timescales) and of the same quality as it provides for its own services, or those of its subsidiaries or partners.
- **Transparency**:
  - continuation of the existing obligation to publish (and update where necessary) reference offers related to the various wholesale unbundled access to the local loop services
  - compliance with the MCA's Decision of November 2011 setting forth migration rules regulating to GO's planned transition to a fibre to the cabinet (FTTC) network.
- **Price control**:
  - continuation of the existing cost-orientation remedy applicable to the unbundled copper access, using the same costing methodology as currently applied
  - *new remedy on fibre*: price control of the access of the unbundled fibre loop based on cost orientation.
- **Cost accounting**:

— continuation of the existing obligation applicable to the unbundled copper access to implement cost-based accounting systems.

- **Accounting separation**:

— continuation of the existing obligation applicable to the unbundled copper access.

1.2 Summary of proposals on the wholesale broadband market

Definition of relevant market

According to the analysis carried out and evidence available to the MCA, the MCA concludes that the wholesale broadband market is national in scope and:

- includes wholesale broadband access over DSL
- includes wholesale broadband access over cable
- excludes wholesale broadband access over WiMAX
- includes wholesale broadband access over fibre
- includes DSL and cable self-supply.

Assessment of market power

Throughout its analysis, the MCA has found that Melita and GO could not behave independently from one another and *in fine* independently from other players. Consequently, the MCA considers that at present there is no clear evidence that supports the finding of single market dominance at the wholesale level.

Nevertheless, the MCA is of the opinion that given the similar position held by Melita and GO at the wholesale level, this market merits a further assessment for the potential finding of joint dominance.

In its last market review in 2008, the MCA carried out an extensive review of the conditions which would lead to joint dominance. Since then, the retail market has undergone a positive evolution, as GO and Melita have a more differentiated behaviour and position in 2012 than in 2008. Therefore, the MCA believes that there is not sufficient evidence to prove that GO and Melita enjoy a joint dominant position. Therefore, the MCA concludes that no operator in the wholesale broadband access market enjoys SMP.

Regulation and remedies

No regulatory obligations are currently imposed in the market. Given that no SMP designation is made within the framework of the review of the market, the MCA will

not impose any *ex ante* regulatory obligations on the Maltese wholesale broadband market.

2. Introduction

The regulatory framework for electronic communications networks and services in the European Union (EU) is designed to create harmonised regulation across Europe and aims at reducing barriers to market entry, while fostering effective competition to the benefit of industry and consumers. The basis for the regulatory framework is five Directives which were first implemented in the EU in 2002 and later amended in 2009:[1]

- Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services ('the Framework Directive').
- 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').
- Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services ('the Universal Service Directive').
- Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector ('the Privacy Directive').

The Framework Directive provides the overall structure for the regulatory regime and sets out the policy objectives and regulatory principles that National Regulatory Authorities (NRAs) must follow. Article 8 of the Framework Directive sets out the key policy objectives of the NRAs, which are the promotion of competition, the development of the internal market and the promotion of the interests of citizens of the EU. We have taken these policy objectives into account in preparing this consultation document.

The EU Directives were transposed into Maltese law on 12 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 'ECRA'); and the Electronic Communications Networks and Services (General) Regulations of 2011 (hereinafter referred to as the 'ECNSR').

[1] Directive 2009/140/EC of the European Parliament and of the Council of 25 November 2009 amending Directives 2002/21/EC on a common regulatory framework for electronic communications networks and services, 2002/19/EC on access to, and interconnection of, electronic communications networks and associated facilities, and 2002/20/EC on the authorisation of electronic communications networks and services and Directive of the European Parliament and of the Council of 25 November 2009 amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services, Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector and Regulation (EC) No 2006/2004 on cooperation between national authorities responsible for the enforcement of consumer protection laws.

The EU Directives require NRAs such as the MCA to carry out reviews of competition in communications markets to ensure that regulation remains appropriate in the light of changing market conditions.

Each market review is divided into three main parts:

- definition of the relevant market or markets
- assessment of competition in each market, in particular whether any undertakings are deemed to have significant market power (SMP) in a given market
- assessment of the appropriate regulatory obligations which should be imposed, given the findings of SMP (NRAs are obliged to impose some form of regulation where there is SMP).

More detailed requirements and guidance on the market review process are provided in the Directives, the ECRA, the ECNSR and in additional documents issued by the European Commission (the 'EC' or 'the Commission) and the MCA. As required by law, in conducting this review, the MCA has taken the utmost account of the two EC documents discussed below.

2.1 Market review methodology

In 2003 the Commission published its first Recommendation on relevant markets, which identifies a set of 18 markets in which *ex ante* regulation may be warranted[2]. The Recommendation seeks to promote harmonisation across the EU by ensuring that the same product and service markets are subject to a market analysis in all Member States. However, NRAs are able to regulate markets that differ from those identified in the Recommendation where 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 (Regulation 5 of the ECNSR).

In December 2007 the Commission adopted its revised Recommendation on relevant markets[3]. This revised Recommendation presents a much shorter list of seven markets that NRAs are required to analyse for the purpose of ex ante regulation.

The Commission has issued guidelines on market analysis and the assessment of SMP ('SMP Guidelines')[4]. These guidelines set out the principles for use by NRAs in the

2 Commission Recommendation of 11 February 2003 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communication networks and services (notified under document number C(2003) 497) (2003/311/EC). Available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:114:0045:0045:EN:PDF]

3 Commission Recommendation of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services (notified under document number C(2007) 5406) (2007/879/EC). Available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:344:0065:0069:en:PDF

analysis of markets and effective competition under the regulatory framework for electronic communications networks and services. The MCA has also published its own document[5] outlining the guidelines on the methodology to be used for assessing effective competition in the Maltese electronic communications sector. The MCA is required to take these guidelines into account when analysing a product or service market in order to assess whether the market under investigation is effectively competitive.

As required by Regulation 7 of the ECNSR, the results of these market reviews and the proposed draft measures need to be notified to the Commission and to other NRAs in Europe. The Commission and other NRAs are invited to comment within the one-month consultation period. If the Commission believes that the market definition, proposals to designate an operator with SMP, or proposals to designate no operator with SMP, would create a barrier to the single market, or if the Commission has serious doubts as to its compatibility with Community law and issues a notice under Article 7(4) of the Framework Directive, the MCA is required by Regulation 8 of the ECNSR to delay the adoption of these draft measures for a further period of two months while the Commission considers its position.

The MCA has collected market data from a variety of internal and external sources, including providers of electronic communications networks and services, in order to carry out its market definition and market analysis procedures thoroughly, based on established economic and legal principles. The MCA is also taking the utmost account of the Recommendation on relevant markets and the SMP Guidelines.

The MCA commissioned Analysys Mason to assist it in conducting its market review of the broadband markets.

2.2 Consultation

As required by Regulation 5(7) of the ECNSR, the MCA shall publish the results of the market reviews and provide market players the opportunity to comment on the findings prior to adopting its final proposals.

Furthermore, Regulation 7 of the ECNSR establishes that prior to adopting the draft measures proposed in the market review, the MCA is required to notify the Commission of the findings of the market reviews, the proposed remedies and the outcome of the national consultation process.

The national consultation period will run from the 15th June 2012 to the 3rd September 2012. During this period the MCA welcomes written comments on any of the issues

[4] Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services (2002/C 165/03). Available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2002:165:0006:0031:EN:PDF

[5] http://www.mca.org.mt/article/market-review-methodology

raised in this paper. Further details on the public consultation are provided in Section 7.

2.3 Liaison with the Competition Authority

Under Article 9 of the ECRA, there is a requirement on the MCA to carry out an analysis of a relevant market within the electronic communications sector. This analysis must be carried out in accordance, where appropriate, with an agreement with the National Competition Authorities (NCA) under Article 4 of the MCA Act.

In line with the co-operation agreement signed on 20 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 (MCCAA), the MCA has concluded a two-week consultation process with the MCCAA. The MCA will publish the comments forwarded by the MCCAA in the response to consultation document.

2.4 Structure of the document

The remainder of this consultation document is structured as follows:

- **Section 3** summarises the previous decisions and consultations on the review of the broadband markets, thus providing useful background information for the purpose of better contextualising the analyses in this consultation document.

- **Section 4** presents our review of the retail broadband market in Malta. Even though the retail broadband market is not on the list of relevant markets subject to *ex ante* regulation recommended by the Commission, it is essential to review the retail broadband market given that the objective of wholesale regulation is to promote the development and competition on the retail market. This section provides an overview of the retail broadband market and reviews the key factors affecting competition on, and the development of, this market.

- **Section 5** presents the review of the market for wholesale unbundled access to the local loops. This section includes a delineation of the wholesale market, analyses this market and discusses the proposed remedies to be imposed on this market.

- **Section 6** presents our review of the wholesale broadband access market, which includes the provision of wholesale broadband services to all Internet service providers (ISPs)[6] for the provision of retail broadband services.

- **Section 7** provides the instructions on how to respond to this consultation document.

[6] For the avoidance of doubt, by ISP we mean any alternative operator other than GO and Melita.

3. Background to previous decisions

This section outlines the previous decisions and consultations on the review of the broadband markets, thus providing useful background information for the purpose of better contextualising the analyses in this consultation document.

It is structured as follows:

- Section 3.1 describes the previous developments on the review of wholesale unbundled access to the local loop market (Market 4)
- Section 3.2 describes the previous developments on the review of the wholesale broadband market (Market 5)

3.1 Wholesale unbundled access to the local loop market (Market 4)

In 2006, the MCA carried out its first-round analysis of the market for wholesale unbundled access (Market 4). On 27 November 2006, the MCA notified to the Commission its draft decision on the definition of relevant product and service markets and on the determination of SMP in the market for wholesale unbundled access to the local loop in Malta. In parallel, it undertook a national consultation process on its draft decision.

The MCA defined the relevant product market as the market for wholesale unbundled access, including shared access to metallic local loops and sub-loops made available for the purpose of providing broadband and voice services. The MCA considered the relevant geographical market to be national in scope.

As regards the assessment of SMP, the MCA found GO as having SMP in the market for wholesale unbundled access to the local loop based on several criteria including its market share, its control over infrastructure that is difficult to duplicate by its competitors, its vertical and horizontal integration, its economies of scale and scope and the absence of countervailing buyer power. The MCA also indicated that no third-party service provider purchased wholesale unbundled access from GO, and the market consisted only of the incumbent operator supplying its own retail branch.

Given the position of dominance held by GO, the MCA imposed a number of wholesale obligations on GO related to access to, and use of, specific network facilities, non-discrimination, transparency, price control, cost orientation and cost accounting. As regards cost orientation, the MCA stated that it would carefully monitor GO's costs that are shared among a number of products. It would also ensure that only

efficiently incurred costs would be reflected in GO's charges. On the basis of this, the Commission had no comments on the MCA's notification.[7]

On the 3rd June 2010, the MCA submitted to the Commission further details of GO's reference unbundling offer (RUO) concerning aspects such as the provision of information related to the operator's main distribution frames (MDFs) and co-location facilities, service-level agreements (SLAs), and timelines and determination of charges not established *a priori*. The Commission issued a 'no comment' letter[8] on the MCA's notification.

On the 2nd November 2011, the Commission registered a notification from the MCA concerning the modification of remedies in Market 4 in Malta. The proposed amendments to GO's RUO included migration rules regulating GO's planned transition to a fibre to the cabinet (FTTC) network. The migration rules mainly concerned the exchange of information, the sharing of cabinets, the introduction of temporary virtual access (TVA), rules on exchange decommissioning and principles regulating eligible costs. The Commission[9] welcomed the MCA's proposed migration rules which, in line with the 2010 Recommendation on NGA[10] (the 'NGA Recommendation'), put in place a transparent framework enabling alternative operators to receive in good time all the necessary information on the SMP operator's network upgrades and exchange decommissioning, thus providing them with the means to adjust their own network accordingly. The Commission also welcomed the principle of imposing TVA and invited the MCA to proceed with a full review of Market 4.

3.2 Wholesale broadband market (Market 5)

On 29 December 2006, the MCA notified to the Commission its proposed decision on the market for wholesale broadband access in Malta. The MCA identified the relevant broadband access market at the retail level as a starting point for the definition of the corresponding wholesale market. On the basis of a substitutability assessment from the demand- and the supply-side, the MCA concluded that the relevant retail market includes all broadband technologies available in Malta during the timeframe of the review, predominantly cable and DSL. Based on the delineation made at the retail level, the MCA established that the wholesale market for broadband access in Malta: (i) excluded simple resale products; (ii) included wholesale products provided over all existing broadband platforms available in Malta during the timeframe of the review, predominantly cable and DSL; and (iii) included self-supplied products. The MCA considered the relevant geographical market to be national in scope.

7 Case MT/2006/0549.

8 Case MT/2010/1087.

9 Case MT/2011/1263.

10 Commission Recommendation of 20 September 2010 on regulated access to Next Generation Access Networks (NGA) (2010/572/EU). Available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:251:0035:0048:EN:PDF.

The MCA assessed the competitive situation in the retail broadband market and concluded, given the existing access regulation at the wholesale level, on the absence of dominance among the 15 broadband ISPs offering retail broadband services in Malta. Further to that, the MCA demonstrated that no single operator was found to be dominant in the wholesale market, since both wholesale broadband access providers had stable and symmetric market shares and enjoyed the same economies of scale and scope, as well as the same barriers to entry, absence of countervailing buying power and vertical integration. Back in 1995, GO had granted voluntary access to ISPs, which as a result started offering dial-up Internet. In 2003, the MCA mandated open access on both GO and Melita to provide wholesale access to ISPs. The MCA stated that GO had complied with the regulatory obligation and continued to provide access to third-party ISPs, while Melita had continuously denied access to its network and only provided access to its in-house ISP Video on Line (VOL). Based on characteristics of the market such that sustainable tacit co-ordination could exist on this market, the MCA concluded on joint dominance by GO and Melita in the market for wholesale broadband access in Malta. The MCA decided to impose the regulatory obligations of non-discrimination, transparency, and price control including cost accounting obligation and accounting separation obligations on both GO and Melita.

During Phase 1 of the MCA's notification, the Commission issued a serious doubts letter stating that the MCA failed to provide sufficient evidence on the finding of joint dominance and subsequently opened a Phase 2 investigation.[11]

During Phase 2, the MCA held numerous meetings with the Commission and provided additional evidence to support its findings. The MCA also requested an expert team from the European Regulators Group (ERG) to review the case. Among other conclusions, the review team stated that whilst the Maltese wholesale broadband market presented problems in terms of wholesale access, the MCA needed to provide additional evidence to support the concerns raised by the Commission. In the end, the Commission was still of the opinion that the MCA's finding of joint dominance was not proven beyond reasonable doubts and initiated proceedings to adopt a veto decision. Given the circumstances prevailing in March 2007, the MCA decided to withdraw its notification to enable it to address the concerns raised by the Commission.

Following a number of meetings with the Commission and a redrafting of the analysis, the MCA intended to publish its final draft report in November 2007. However, in light of a spate of price/quality movements by interested operators just days before the intended publication of this report, the report had to be withheld and reviewed in order to take account of these developments. A second revised report was then issued for consultation in April 2008. According to national characteristics, the MCA

[11] Case MT/2007/0563, Opening of Phase II investigation pursuant to Article 7(4) of Directive 2002/21/EC, 29.1.2007. Available at http://circa.europa.eu/Public/irc/infso/ecctf/library?l=/commissionsdecisions/commissions_decisions/2007_serious_amended/_EN_1.0_&a=d.

defined the relevant wholesale broadband access market excluding simple resale products, and including all self-supplied wholesale broadband access products provided over all existing broadband networks, namely DSL, cable and WiMAX, as well as all wholesale broadband access products and services provided to third-party ISPs, via all existing broadband networks.

In its analysis of dominance, the MCA considered a number of criteria such as market shares, economies of scale and scope, vertical and horizontal integration, and countervailing buyer power. However, the MCA did not find any compelling evidence that any market player enjoyed a significant advantage over the others in the market. On the contrary, the MCA found that Melita and GO appeared to have come to occupy a similar position in the wholesale market. Consequently, the MCA considered, from the evidence available at that time, that there was no clear evidence supporting the finding of single market dominance either at the retail or at the wholesale level.

Given the similar position held by Melita and GO at the wholesale level, the MCA carried a further assessment of the potential finding of joint dominance between these two operators. Following the numerous changes in the products and prices offered by Melita and GO, and following the entry in the market of Vodafone in June 2007, the market structure had changed considerably. As a result, a number of factors were found to be inconclusive on the possible finding of joint dominance. Consequently, the MCA concluded that despite some potential market problems particularly in the provision of wholesale access, there was a lack of sufficient evidence to determine that Melita and GO could, within the timeframe of this review, sustain a successful coordinated outcome.

As a result, in June 2008 the MCA withdrew all the regulatory obligations previously imposed on GO and Melita in the wholesale broadband market (e.g. an obligation to provide the so-called 'bitstream').

4. Review of the retail broadband market

This section presents an overview of the retail broadband market and reviews the key factors affecting competition on, and the development of, this market.

It is structured as follows:

- Section 4.1 provides a brief introduction to the review of the retail broadband market, including the definition of a benchmark panel used in the remainder of this document.
- Section 4.2 proceeds with the market definition of the retail broadband market, in terms of the relevant product market and geographical scope of the market.
- Section 4.3 analyses the key factors affecting competition on, and the development of, this market.
- Section 4.4 concludes this review of the retail broadband market

4.1 Introduction

Historical backdrop

Malta is a small territory with a surface area of just 316km² and a total population of 417 600 inhabitants at the end of 2010[12]. The small population is a market condition that would be expected to lead to diseconomies of scale. However, to a significant extent, this has been offset by the limited geographical area, which results in a high population density for Malta and permits telecoms operators to provide national network coverage.

These characteristics underpinned the development of the Maltese electronic communications sector that, albeit on a small scale, has experienced significant growth in output over the last ten years, as well as in the variety of services offered. Thus Malta's unique characteristics have, to an extent, played a significant role in the situation today, particularly in the broadband markets.

Traditionally, Malta was served by two fixed established operators that were capable of offering broadband services over their nationwide DSL and cable networks. The presence of two traditional ubiquitous established operators, GO using a copper telephone infrastructure and Melita using a hybrid fibre-coaxial (HFC) cable infrastructure, was not only a consequence of Malta's size. Indeed, both GO and Melita enjoyed a legally binding monopoly for a substantial period of time before Malta joined the EU:

12 Source: National Statistics Office – Malta.

- As the long-standing telephony incumbent, **GO** enjoyed a monopolistic position in the retail fixed telephony service until 2003 (when a number of ISPs started to offer international call services using VoIP[13] technology). GO continued to enjoy a *de facto* monopoly in the provision of national fixed telephony services until 2005 when Melita launched its telephony services as an add-on to its broadband service. GO launched its broadband service in 2000 at the same time when Melita was also launching its broadband service.

- In operation since 1991, **Melita** was also granted a national monopoly by the Maltese Government for the provision of cable-TV services. The monopoly was granted for a period of 15 years (subsequently reduced when TV transmission services were liberalised in 2001), and the Maltese Government's actions to facilitate the deployment of Melita's cable network[14] enabled rapid deployment of Melita's cable infrastructure throughout Malta.

Until 2000 (when Melita also started offering broadband services), despite the geographical overlap between the two networks there was no competition between GO and Melita. This is because each operator ran technology-specific applications over its network – telephony on the copper network and TV on the cable network. Both fixed networks now pass over 95% of homes in Malta and both have a connection to the vast majority of households in Malta, offering a combination of telephony, broadband Internet and TV.

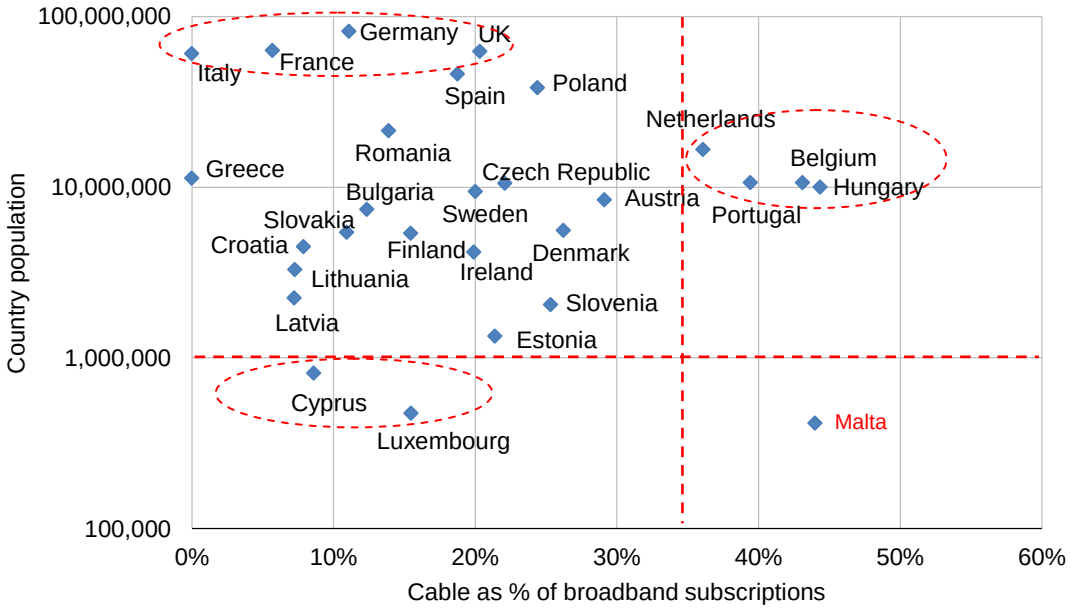
Benchmark panel

For the purposes of providing an informed view of the situation in Malta throughout this market review, the MCA has selected several EU countries against which Malta is to be benchmarked. When selecting appropriate benchmark countries, the MCA recognised that, in view of the above discussion, the key factors which capture Malta's specificities are the country's population and the structure of the broadband market (i.e. development of the cable industry). The figure below shows the size of the population and the relative importance of cable for broadband in each of the 27 EU Member States.

13 Voice over IP.

14 For example, the Government included provisions in legislation that permitted Melita to pass its infrastructure over private property (whether underground or overhead), without the need to pay remuneration.

Figure 4.1: Country population and role of cable broadband in EU27 countries [Source: Analysys Mason 'Fixed Broadband quarterly metrics', 2012]



From the above figure, it appears that no other EU Member State has Malta's characteristics, combining a relatively small population size and comparatively advanced development of cable. However, by considering these two factors separately, it is possible to identify countries which have, similarly to Malta:

- *either* a population below 1 million: Cyprus and Luxembourg
- *or* a high share of cable broadband (above 35% of all broadband connections): the Netherlands, Portugal, Belgium and Hungary[15].

In addition, for the purposes of the benchmarking, the four leading countries (in terms of total GDP and population) have also been considered – that is, Germany, France, the United Kingdom (UK) and Italy (sorted by decreasing GDP).

In the remainder of this document, these are the ten countries against which Malta is benchmarked.

4.2 Definition of the retail broadband market

In identifying the relevant markets, the MCA is required to take full account of all applicable guidelines and recommendations issued by the European Commission ('the Commission'). In formulating its approach to the market definition, the MCA has paid the utmost regard to the Commission's Recommendation on Relevant Markets (published in 2003 and updated in 2007). Where the proposed market definition

15 The countries are arranged in order of increasing share of cable broadband.

differs from the Commission's Recommendation, the difference is identified and justified in light of the national circumstances.

The MCA's analysis has been carried out on a forward-looking basis and, where it is thought possible that market conditions may change significantly during the timeframe covered by this review, these changes are identified and discussed. The MCA's approach to assessing the markets is based on an analysis of competition levels and an assessment of the extent to which switching between services by consumers constrains prices, irrespective of the infrastructure used by the providers of those services.

The Commission Recommendation on relevant markets clearly states that the starting point for market definition is a characterisation of the retail market over a given time horizon, taking into account the potential for demand- and supply-side substitution.

4.2.1 Main players and offers in the market

Broadband is a technical term which describes a data communications technology that provides a permanent, "high" throughput connection. Typical speeds can vary from above 128 kilobits per second (kbit/s) up to several Megabits per second (Mbit/s). Broadband technologies are able to provide a mix of data, voice, and video services over one "pipe". Broadband connections are typically asymmetric but can also support equal downstream and upstream rates.

In this context, broadband is thus taken to mean any technology that uses a permanent connection, has the capability of providing bi-directional data transmission rates that are higher than achievable using a narrowband (e.g. dial-up/ISDN modem) technology, but without resorting to the use of a dedicated end-to-end network resource (like leased lines).

The Explanatory Memorandum to the 2003 Recommendation on relevant markets similarly defines broadband services as "allowing downstream capacity to end-users in excess of 128 kbps/sec. The bandwidth of the service supplied may be asymmetric or symmetric."[16]

In Malta, the main players in the retail broadband market are:

- **GO** – over its copper DSL infrastructure, GO provides broadband connections with download speeds from 4Mbit/s to 20Mbit/s. The maximum speed offered to a given end user depends on the copper line length and quality. However, in order to make higher speeds available to a larger number of users, GO has started

[16] Explanatory Memorandum to Commission Recommendation of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services – C(2007) 5406, footnote n°29, p.29.

rolling out DSL equipment (DSLAMs) to street cabinets. The MCA estimates that by the end of 2011 around 75% of cabinets have been upgraded to fibre (FTTC).

- **Melita** – over its cable HFC infrastructure that has been fully upgraded to DOCSIS3.0 cable broadband standard, Melita provides broadband connections with download speeds from 7Mbit/s to 100Mbit/s. Melita states that it has upgraded its network with fibre up to street cabinets and created many additional optical nodes[17]. Thus, Melita is capable to provide nationwide coverage with its 100Mbit/s product.

- **Vodafone** – over its fixed WiMAX (802.16d) infrastructure, Vodafone provides broadband connections with download speeds between 2Mbit/s and 6Mbit/s. However, it should be noted that Vodafone has stopped offering WiMAX-based retail broadband products to new clients (since April 2011).

- **ISPs** – ISPs also provide broadband with a number of different possible infrastructures. For instance, SKY Telecom's SKYNet operates in the unlicensed WiMAX band, Vanilla Telecoms using Wifi, SIS Ltd.[18] over its own hybrid fibre-coaxial network deployed exclusively in the Tigne area (private development). The Malta Information Technology Agency (MITA) which is the Government's own ISP, provides broadband connections to all Government entities and uses a wholesale agreement from both Melita and GO for wholesale access services.

Two main types of offer can be found in the retail broadband market:

- **Broadband offers intended for residential customers**, with asymmetric speeds which may be limited (or billed) by volume of use (for low- to mid-end products) or unlimited (possibly on condition of "fair use"). These broadband offers are gradually moving towards multiple-play broadband offers that include provision of fixed telephony, television and even mobile telephony service in addition to broadband services.

- **Broadband offers intended for non-residential customers**, with upload speeds that often exceed those offered to residential customers. These offers can also be characterised by a higher quality of service and the provision of one or more fixed IP addresses.

4.2.2 Definition of the relevant product market

The delineation of the market is based on an analysis of demand and supply substitutability among different products and services which could potentially form

17 Optical nodes are where the conversion between optical fibre and coaxial cable occurs. The greater the number of optical nodes, the larger the bandwidth available to end-users.

18 SIS is a joint venture in Malta between Siemens and Midi plc.

part of the market under investigation. This section provides an analysis of the degree of substitutability between the products and services available in Malta, taking also a forward-looking approach with respect to possible developments in the market under review.

In its 2003 Recommendation on Relevant Markets, the Commission defined a wholesale unbundled access (including shared access) to metallic loops and sub-loops for the purpose of providing broadband and voice services (Market 11) and a wholesale market for broadband access (Market 12). In the revised Recommendation of December 2007 these markets are still present, and are named wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location (Market 4) and wholesale broadband access market (Market 5). No retail broadband market is defined in either the 2003 Recommendation or the 2007 Recommendation.

As outlined in the Explanatory Memorandum to the 2007 Recommendation, the starting point for market definition is the characterisation of the retail markets. Having defined the relevant retail market, it is then appropriate to identify the corresponding wholesale market.

In the Explanatory Memorandum to the 2007 Recommendation, the Commission states that "[i]n general, the provision of retail internet access consists of two parts: (i) the network or transmission service to and from the end-user's location and (ii) the provision of Internet services, in particular end-to-end connectivity with other end-users or hosts." The Commission highlights that "[a]t the current time, it is possible to identify three commonly available forms of Internet access: (i) dial-up service, (ii) high bandwidth services using digital subscriber line (DSL) technologies (or equivalents) or cable modems and (iii) dedicated access".

In the Explanatory Memorandum, the Commission mentions several criteria to take into account when defining relevant retail markets for Internet access:

- bandwidth
- connection speed
- prices and tariff structures
- upload and download limits, and data rates
- quality of service
- additional features[19].

[19] Explanatory Memorandum to Commission Recommendation of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services – C(2007) 5406, p.29, 30, 31.

On the basis of the Commission's observations and in the light of offers available in the Maltese market, definition of the relevant product market involves examining whether:

- broadband and narrowband access services fall in the same retail market
- residential and business broadband access services fall in the same retail market
- DSL and cable broadband access services fall in the same retail market
- DSL and WiMAX access services fall in the same retail market.

Broadband and narrowband access services

Narrowband services are no longer offered in Malta, as GO upgraded all narrowband services to broadband in 2010.

Despite this, the MCA still analyses narrowband and broadband access services to determine their hypothetical substitutability and functional equivalence if narrowband services were still offered in Malta.

► *Demand-side substitutability*

As underlined by the Commission in the Explanatory Memorandum to the 2007 Recommendation[20], the MCA considers that there are fundamental functional differences between broadband and narrowband Internet access. Narrowband is typically a dial-up service which is limited in terms of the available access speed. In contrast, broadband connections are usually 'always on' and are capable of speeds in excess of 128kbit/s.

From a functional perspective the MCA therefore considers that it is clear that a dial-up connection could not be considered a good substitute for a broadband connection, since it does not support high-speed downloads and uploads which are required for many online services and applications. The introduction of additional broadband voice services (such as voice over broadband), as well as the increasing popularity of applications requiring high throughputs (video streaming, peer-to-peer applications, etc.), further highlights the underlying differences between narrowband and broadband access services.

20 In the Explanatory Memorandum to the 2007 Recommendation, the Commission underlines that "there are a number of technical characteristics of broadband access that imply that certain applications are not viable over dial-up access". The Commission considers that "[o]n this technical basis and from the standpoint of broadband, therefore, narrowband would be a separate market, because the services and/or the quality features of those services (including their uplink and downlink speed) which can be offered over a narrowband connection would not be seen as viable substitutes from the point of view of an end-user making use of a broadband connection". Explanatory Memorandum to Commission Recommendation of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services – C(2007) 5406, p.30.

► *Supply-side substitutability*

As it did during the previous market analysis, the MCA has examined whether an ISP would respond to a small but significant non-transitory price increase by a hypothetical monopolist supplier of broadband services (and *vice versa*) by switching to provide solely narrowband services (and *vice versa*). The MCA believes that, although an ISP would be able to substitute the provision of narrowband services entirely with broadband services fairly easily at this point in time, the converse would not be true.

► *Preliminary conclusion*

Due to different functional characteristics and a one-way substitutability on the supply side, the MCA considers that, if narrowband services were still offered in Malta, narrowband and broadband access services would not be substitutable. The MCA therefore takes the view that narrowband and broadband access services do not fall within the same relevant product market.

Residential and business broadband access services

The Commission usually identifies two separate markets for residential and business services, considering that contractual details and services offered in these markets may differ. The MCA therefore considers it necessary to analyse whether the market could be segmented into residential and business sectors.

► *Demand-side substitutability*

Residential services are in most cases restricted to non-professional usage. Residential and non-residential services usually differ significantly in terms of characteristics (virtual private network, security options, etc.), usage (quality of service, availability and data rate) and tariffs (residential services are generally cheaper than business services).

In Malta, small/medium businesses can purchase packages that are fairly similar to those of residential customers, with minor additions such as multiple email addresses and web hosting facilities. However, larger corporations purchase significantly different products that provide much higher bandwidth and quality of service. Such products are usually superior to 'standard' broadband packages and priced more expensively than residential products. Therefore, there is no demand-side substitutability between residential and business broadband services.

► *Supply-side substitutability*

As part of the supply-side substitution analysis, the hypothetical monopolist test assesses whether a hypothetical monopolist can profitably raise the price of the residential (or business connections) to between 5% and 10% more than its

competitive level, without inducing other providers to start offering residential (or business) services.

Given that cable and DSL networks already provide nationwide coverage, the MCA considers that it would be relatively easy for an existing provider to start offering residential (or business) connections following a price increase. Therefore, there is supply-side substitutability between residential and business broadband services.

► *Preliminary conclusion*

Based on this assessment, the MCA considers that residential and business services fall within the same relevant product market.

DSL and cable access services

As part of the retail market definition exercise in the previous market analysis, the MCA examined whether there were distinct retail markets for the various broadband access services that were available, or whether they all formed part of the same relevant product market. However, the subsequent analysis mainly focuses on DSL and cable technologies because cable and DSL platforms are expected to remain the dominant form of access to broadband services.

► *Demand-side substitutability*

Functional substitutability

In terms of the service packages, both cable and DSL broadband services exhibit the following characteristics:

- Speed – there are offers available on both networks with download speeds higher than 10Mbit/s. Cable currently offers higher maximum speeds than DSL (100Mbit/s vs. 20Mbit/s), but this could change in future as VDSL/VDSL2 may be rolled out
- Payment terms – post-paid for both cable and DSL
- Pricing – similar DSL/cable packages have overall similar pricing structures and levels
  - prices vary according to speed and download caps; uncapped packages are available on both networks
  - connection, installation and modem fees are typically waived through ongoing special offers.

Consumer evidence

In the first quarter of 2011, the MCA conducted research into broadband users' perceptions[21]. The key findings from this survey were as follows:

- **Consumer awareness**: 87% of respondents claimed that understanding and choosing a specific Internet service is easy or very easy. Interestingly, however, only 25% of respondents were aware of the price they were paying for their broadband subscription and more than 75% of households with Internet access did not know what Internet connection speed they had

- **Churn**: the overall level of churn between broadband technologies has been around 13%. Over the previous two years, 8.2% of all households switched their cable connection to an ADSL connection, whilst 3.5% households changed from an ADSL connection (predominantly to cable broadband, with a fraction moving to WiMAX solutions). Hence, it is clear that churn is present between the two types of retail broadband product and that switching occurs between the two types of available broadband service

- **Switching capability**: only 23% of all households with Internet access thought that switching between Internet services could be difficult, mainly due to modem and wiring complications.

From examination of the characteristics of the broadband services provided over ADSL and cable modem, it is clear that:

- cable broadband and DSL broadband services are interchangeable
- users perceive that it is irrelevant which technology is used to provide broadband access
- broadband access service characteristics are basically identical
  - similar range of speeds (despite an advantage to cable broadband)
  - similar modem, installation and monthly costs
  - similar quality of service
  - similar additional services (VoIP, TV over broadband) and content can be accessed
- switching costs are minimal, since modem deposit and installation fees may be waived

[21] MCA Market Research, Consumer Perception Survey Results – Internet, published in August 2011, available at http://www.mca.org.mt/article/consumer-perception-survey-broadband-internet

- the coverage of both cable and DSL networks is almost ubiquitous
- churn is present and flows equally from one technology to another.

All possible indicators therefore demonstrate that the two broadband platforms exhibit functional equivalence.

Hypothetical monopolist test

As part of the demand-side substitution analysis, the hypothetical monopolist test assesses whether a hypothetical monopolist can profitably raise the price to between 5% and 10% above its competitive level.

At the retail level, the MCA considered whether a retailer of broadband access services (ISP) would be in a position to introduce a small but significant and non-transitory increase in price (SSNIP) of say 10%, without losing many of its customers to other ISPs.

The results of the latest research on broadband users' perceptions referred to earlier indicated that 54% of respondents would change their Internet connection if the subscription charges increased by 10% on a monthly basis.

Following a hypothetical price increase, DSL subscribers may consider switching to cable. Similarly, an increase in the retail price of cable broadband products could lead consumers to switch to DSL products. In fact, consumers are able to, and do, switch between cable and DSL retail products. This is borne out by the results of the consumer survey on churn discussed earlier on.

From the analysis above, it is clear that the cross-price elasticity is positive, and therefore DSL and cable products are good substitutes.

► *Supply-side substitutability*

The MCA also investigated supply-side substitutability effects. In particular, the MCA considered whether new suppliers would be encouraged, and able, to start offering broadband services at no significant high costs in a short period of time without incurring significant costs in the short term, following a price increase by a hypothetical monopolist ISP.

To a great extent, such an outcome would depend on the availability of wholesale broadband access services. A new entrant at the retail level would need to negotiate access with existing network operators. Alternatively, a new entrant could decide to replicate a broadband infrastructure, which would imply a high barrier to entry.

However, building an alternative network would involve significant costs and so a rapid market entry is not possible using this approach.

► *Preliminary conclusion*

The demand-side substitutability analysis demonstrated that there is a direct pricing constraint between cable and DSL. On the supply-side the MCA found that if wholesale broadband access was available, market entry within the timeframe of this review would be possible.

In view of the above, the MCA is of the opinion that DSL and cable broadband access products pose a direct constraint on each other and are substitutable. Therefore, they form part of the same retail market.

DSL and WiMAX access services

In the previous market analysis, the MCA concluded that WiMAX was included in the same market as DSL access services. However, the situation has changed, since WiMAX is no longer offered in Malta[22]. The MCA nevertheless considers it necessary to assess whether, in the event that WiMAX was still offered in Malta, DSL and WiMAX would be substitutable.

► *Demand-side substitutability*

Despite a few differences in terms of characteristics between DSL and WiMAX services (WiMAX has lower speeds and may have less stable connections than other wired technologies due to its wireless nature), from a user's perspective the functional characteristics of the DSL and WiMAX products are, in practice, sufficiently similar for the two products to be interchangeable. For instance, WiMAX like many other technologies supports VoIP – even if TV is not available over WiMAX.

There is national WiMAX coverage compared to the DSL and cable coverage. Before the product stopped being offered, WiMAX prices were also similar to DSL and cable broadband products, despite with lower headline speeds.

In the event that WiMAX was still offered in Malta, in line with the principle of technology neutrality, the MCA believes that DSL and WiMAX services would be substitutes from a demand perspective. However, given that WiMAX is no longer offered in Malta, it could not create a credible direct pricing constraint to DSL as in practice DSL subscribers can no longer switch to a WiMAX broadband subscription.

[22] Vodafone stopped offering WiMAX to new clients in April 2011. Other broadband wireless providers such as SKY Telecom use WiMAX in licence-exempt spectrum; this is included in the "Other" category by MCA, as it corresponds to a proprietary WiMAX solution.

► *Supply-side substitutability*

The MCA has examined whether a WiMAX operator would respond to a SSNIP by a hypothetical monopolist supplier of DSL services by switching to provide DSL services, and whether a SSNIP by a WiMAX operator would cause a DSL operator to supply WiMAX. The MCA believes that a DSL operator would not be able to move to the provision of WiMAX services (and *vice versa*) without significant investments. In addition, the requirement to acquire frequencies in order to offer WiMAX services would also constitute a significant barrier to entry by a new supplier.

► *Preliminary conclusion*

In the event WiMAX was still offered in Malta, the MCA believes that DSL and WiMAX services would form part of the same relevant product market. However, given that it is no longer offered in Malta, WiMAX should be excluded from the relevant product market.

4.2.3 Relevant geographical market

As underlined by the Commission in the guidelines on market analysis (the "EU Guidelines")[23], a relevant geographical market comprises the area in which the undertakings concerned are involved in the supply of and demand for products and/or services, in relation to which the conditions of competition are sufficiently homogeneous and which can be distinguished from neighbouring areas because the conditions of competition are appreciably different from those areas.

According to the EU Guidelines, in the electronic communications sector, the definition of the geographical scope of the relevant market is generally determined with reference to the area covered by a network and to the existence of legal and other regulatory instruments[24].

First, Malta is a small country where demand does not vary significantly from one area to another. In particular, there is no indication that broadband penetration is significantly different between the two islands (Gozo and Malta).

Moreover, both DSL and cable broadband infrastructures have been extended to cover almost the entire national territory, and services are sold in exactly the same way regardless of location.

Finally, retail pricing is uniform at a national level.

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23 Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services (2002/C 165/03), paragraph 56.

24 Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services (2002/C 165/03), paragraph 59.

Based on the abovementioned characterisation and market conditions, the MCA takes the view that the relevant geographical market for the relevant product and service markets under consideration is the national territory of Malta.

4.2.4 Conclusion on the market definition for the retail broadband market

According to the analysis carried out and evidence available to the MCA, the MCA concludes that the retail market has a national geographical scope and:

- includes all broadband technologies commercially available in the market during the timeframe of this review, namely cable and DSL technologies
- includes residential and business services
- excludes narrowband services
- excludes WiMAX services.

Q1. Do you agree with the above preliminary conclusions regarding definition of the retail broadband market in Malta?

4.3 Analysis of the retail broadband market

Having defined the retail market, the MCA now assesses the level of competition in the retail market to identify potential market issues.

4.3.1 Major structuring factors in the market

This section discusses the following major structuring factors in Malta's retail broadband market for the purposes of analysing the market:

- market size
- market shares
- speeds
- retail prices
- take-up of bundles.

Market size[25]

The retail broadband market in Malta has grown significantly in the past five years. Household penetration grew from 36% in 2005 to 85% in 2010 and 89% in 2011 (see Figure 4.2), with approximately 129 000 broadband subscriptions in 2011. This places Malta second out of 11 benchmark countries in terms of broadband household penetration in 2010, second only to the Netherlands (as shown in Figure 4.3).

Figure 4.2: Evolution of broadband subscriptions and (household) penetration in Malta [Source: MCA]

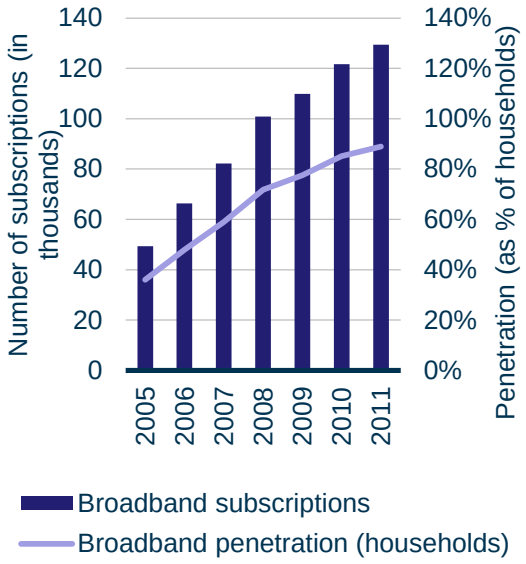
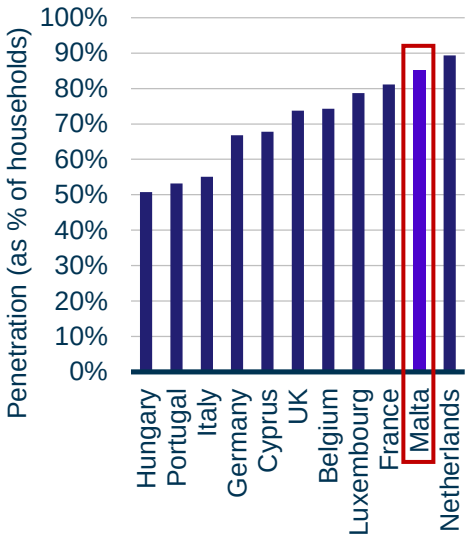


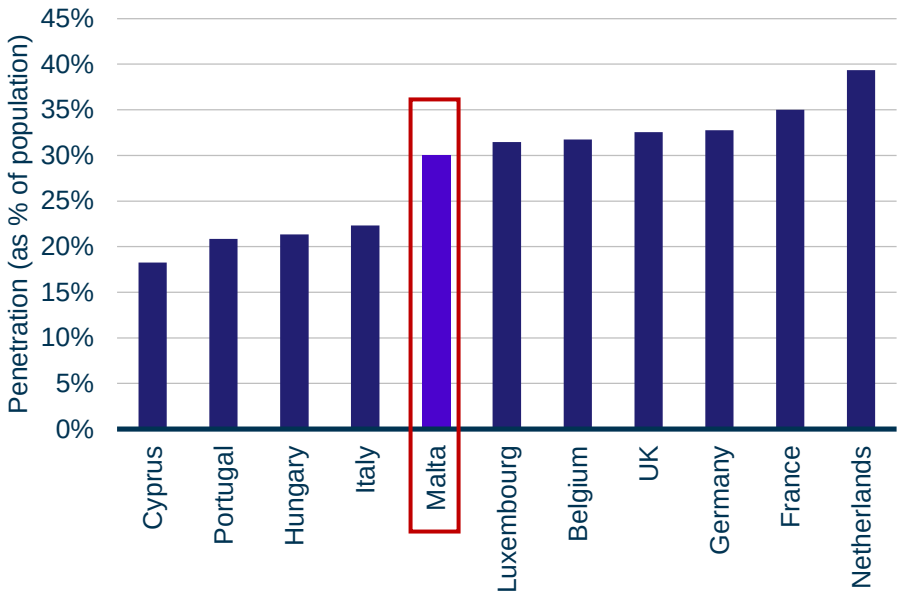
Figure 4.3: Broadband (household) penetration in benchmark countries, 2010 [Source: MCA, Analysys Mason]



This broadband penetration of 85% of the households in 2010 translates into a broadband penetration of 30% of population. In terms of broadband population penetration, Malta is positioned in the middle of the range of benchmark countries, behind EU members such as France, Germany or the UK (as shown in Figure 4.4). It can be noted that Malta ranks lower in terms of population penetration than household penetration, because the average size of households in Malta is significantly larger than the average across the EU (2.9 persons per household in Malta vs. 2.3 per household in EU27).

[25] Unless stated otherwise, all numbers in the section below relate to the end of the relevant year.

Figure 4.4: Broadband population penetration in benchmark countries, 2010 [Source: MCA, Analysys Mason]



In terms of technology, DSL and cable broadband make up most of the retail broadband market, accounting for 51% and 46% of total broadband connections respectively in 2011, as illustrated in Figure 4.5 below. The remaining 3% of connections rely on broadband wireless access (BWA) technologies such as WiMAX. Among the benchmark countries, Malta has the highest penetration of cable broadband in the retail market (as shown in Figure 4.7 below).

Malta does not currently have any residential FTTB/FTTH connections, but the Ministry for Infrastructure, Transport and Communications has issued an expression of interest for nationwide FTTH roll-out.

Figure 4.5: Evolution of the market shares by technology in Malta [Source: MCA]

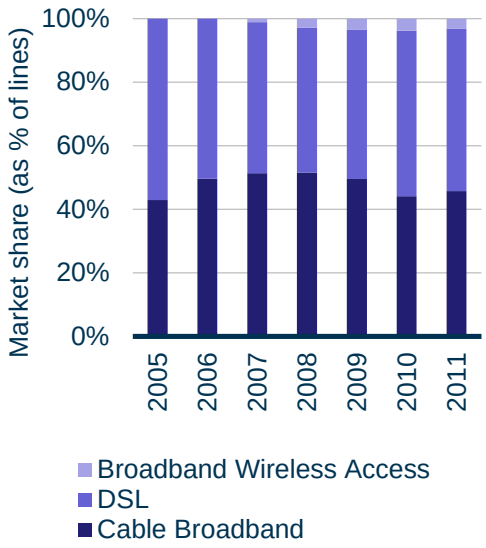
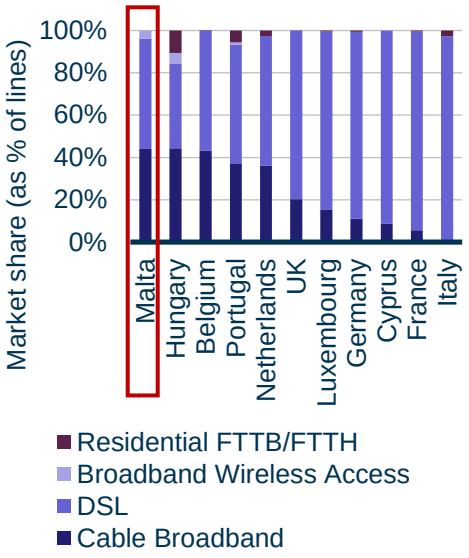


Figure 4.6: Broadband penetration in benchmark countries, 2010 [Source: MCA, Analysys Mason]



Market shares

GO and Melita are the main operators in the retail broadband market, with a combined market share of 96% in 2011.

GO's market share has significantly grown in the past few years, as GO acquired a series of ISPs over the period, such as Bell Net and BMIT Group in 2009. GO also acquired clients from other ISPs that had ceased operations in order to ensure continued access to consumers. At the end of 2011, GO had 51% of retail broadband lines. As illustrated by Figure 4.8 below, GO's market share lies in the middle of the range for the benchmark countries.

Melita's market share remained in the range 40% to 55% between 2005 and 2011, and stood at 46% at the end of 2011.

Vodafone entered the market in 2007 offering a WiMAX service, and at the end of 2011 represents around 3% of broadband lines. SKYNet, SIS and Vanilla Telecoms (which have their own (wireless) infrastructure) have a combined market share of less than 1%, having launched relatively recently (e.g. SKYNet, SIS, Vanilla Telecoms, which launched in 2009). Third-party ISPs that provide broadband on the basis of existing wholesale offers made up almost one third of the market in 2005. Since then, their market share has been in continual decline, as a result of successive acquisitions by GO and also a number of consolidations amongst various ISPs.

Figure 4.7 and Figure 4.8 below show the evolution of market shares since 2005 in Malta and the (DSL) incumbent market share benchmark.

Figure 4.7: Evolution of the share of the broadband market by operator in Malta [Source: MCA]

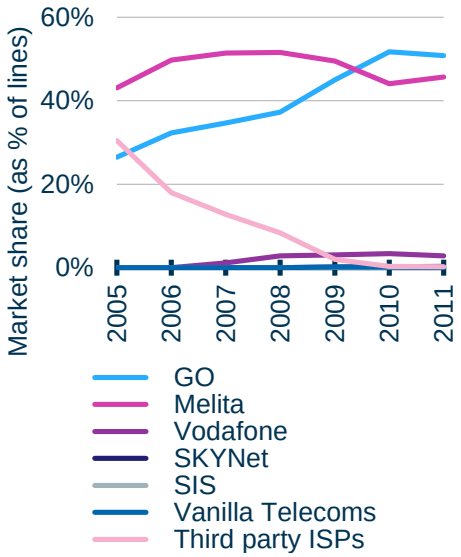
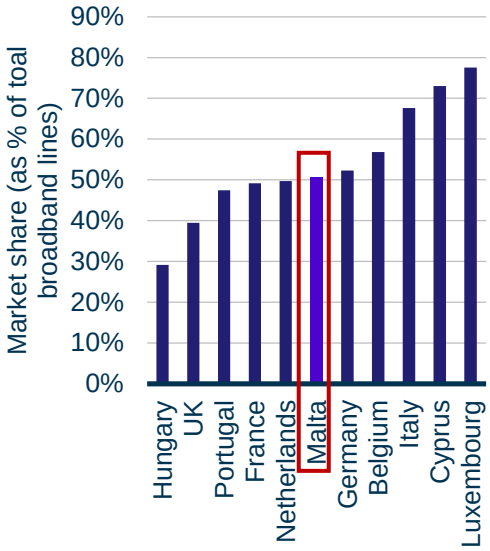


Figure 4.8: Incumbent market shares in benchmark countries, 2010 [Source: MCA, Analysys Mason]



Speeds

Broadband speeds have been developing steadily in Malta in recent years. Speeds under 4Mbit/s have been progressively phased out of the market, while speeds above 10Mbit/s (which were introduced in 2008) are increasingly being taken up by subscribers. As illustrated in Figure 4.9 below, broadband speeds of between 4 and 6Mbit/s were most common in Malta in 2011, and represented more than 70% of all broadband subscriptions. Higher-speed connections (10Mbit/s or above) represented 25% of total subscriptions at the end of 2011. However, the share of connections above 10Mbit/s is still relatively low compared to most other benchmark countries (see Figure 4.10).

Figure 4.9: Number of subscriptions by speed in Malta [Source: MCA]

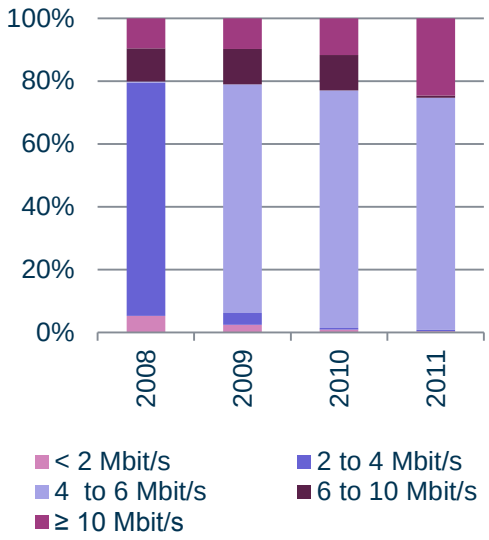
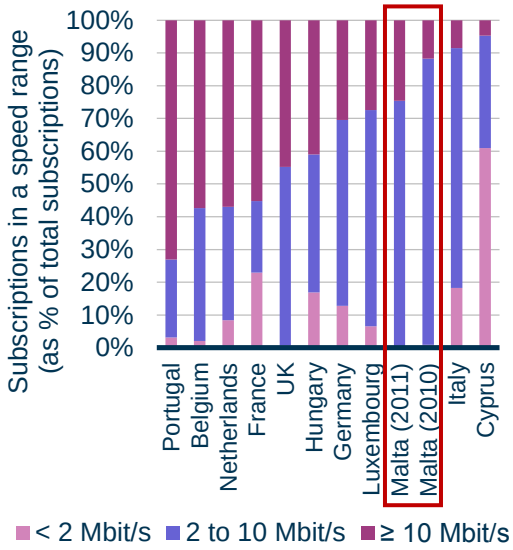


Figure 4.10: Percentage of subscriptions by speed range in benchmark countries, 2010 [Source: MCA, Analysys Mason]



This increase in overall broadband speeds has been mainly a result of Melita initially leading the market in the race for higher speeds. For instance, Melita was the first to launch a 10Mbit/s offer in March 2008 and a 30Mbit/s offer in mid-2008. Melita has also made continuous efforts to phase out speeds below 6Mbit/s by upgrading its clients to 7Mbit/s for the same price and to higher speeds in return for a small price premium[26]. As a result, by mid-2011, 25% of all Melita's broadband connections offered speeds higher than 10Mbit/s, compared to 6% of GO's connections.

However, GO caught up quickly in the second half of 2011, by launching a major programme to upgrade all of its 8Mbit/s connections to 12Mbit/s in November 2011, at no extra cost to its customers. At that time, GO also introduced a significant price cut on its 20Mbit/s product, as discussed in the subsequent section reviewing broadband prices. As a result, as illustrated in Figure 4.12, GO's share of connections offering speeds of 10Mbit/s or more jumped from 6% in June 2011 to 28% of its total connections in December 2011. This gave GO the largest share of connections of at least 10Mbit/s at the end of 2011, as shown in Figure 4.11.

26 Between May and July 2010, Melita launched an "Internet Upgrade Offer" which allowed 5Mbit/s and 7Mbit/s users to upgrade to 10Mbit/s for a premium of EUR6 or EUR4, respectively. Melita also offered 10Mbit/s users to upgrade to 20Mbit/s for a premium of less than EUR10. As of early 2012, Melita was upgrading 5Mbit/s users to 7Mbit/s at no extra charge.

Figure 4.11: Number of subscriptions by speed [Source: MCA, December 2011]

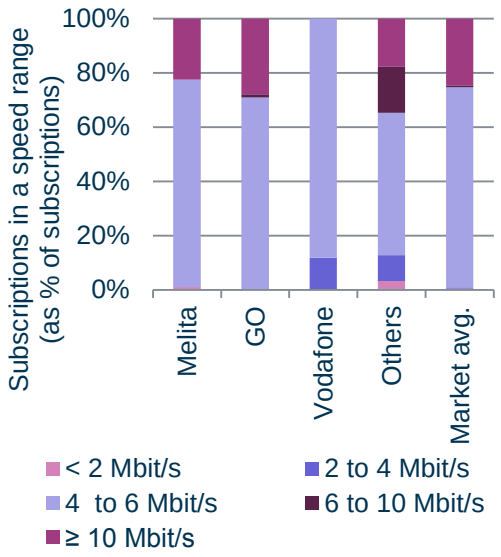
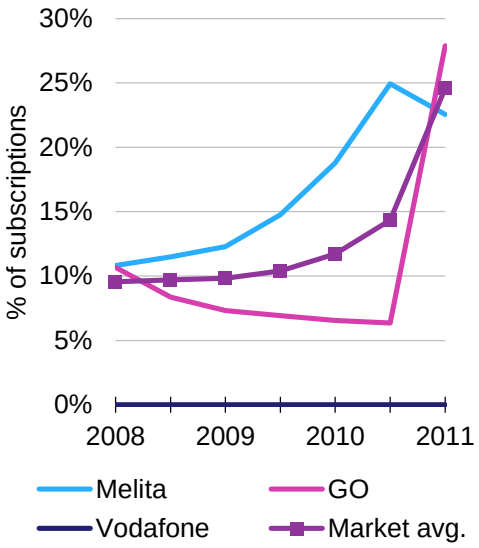


Figure 4.12: Historical share of subscriptions to speeds of at least 10Mbit/s[27] [Source: MCA]



With recent developments in the offers from both operators, the MCA expects the proportion of higher-speed connections to continue rising quickly for both, thus contributing to the general speed increase in the Maltese market.

Vodafone has not yet launched higher-speed offers and is unlikely to do so, given the termination of its WiMAX offer. Other ISPs have only a limited customer base, so are unlikely to have any significant impact on the market.

Review of prices[28]

Prices for the main broadband offers in Malta have remained fairly stable over the last five years, but broadband speeds and volume caps rose significantly for the same price.

This implies that from a consumer's point of view, for the same monthly budget, it has been possible to pay for an increasingly attractive broadband offer over the last five years. As illustrated in Figure 4.13 below, with a budget of EUR15 per month, in Q1 2007 a consumer could have a broadband connection at 256kbit/s with a 1GB download cap from GO or at 128kbit/s with a 1GB download cap from Melita. Today, with the same budget, a consumer can have a 4Mbit/s connection with a 25GB download cap from GO, or a 7Mbit/s connection with a 100GB download cap from Melita. Other examples with different monthly budgets are also shown in Figure 4.13.

27 The share of subscriptions to speeds of 10Mbit/s and above for GO fell between 2009 and 2011, because GO acquired a very large number of clients with speeds between 4 and 6Mbit/s during the period (particularly from the ISPs that GO acquired), although the customer base for speeds of 10Mbit/s and above increased in absolute terms.

28 All prices mentioned in this section are inclusive of VAT.

Figure 4.13: Residential broadband services (speeds and download caps) available by consumer budget in early 2007 vs. early 2012 [Source: MCA, operators' websites]

	2007		2012	
Monthly budget	GO	Melita	GO	Melita
EUR15	256kbit/s, 1GB	128kbit/s, 1GB	4Mbit/s, 25GB	7Mbit/s, 100GB
EUR30	4Mbit/s, 10GB	2Mbit/s, 7GB	12Mbit/s, 150GB	25Mbit/s, unlimited
EUR50	4Mbit/s, 30GB	4Mbit/s, 10GB	20Mbit/s, unlimited	50Mbit/s, unlimited

The two figures below illustrate the price evolution of both operators' offers, with speeds and download caps.

Figure 4.14: Prices for GO's main broadband offers [Source: MCA]

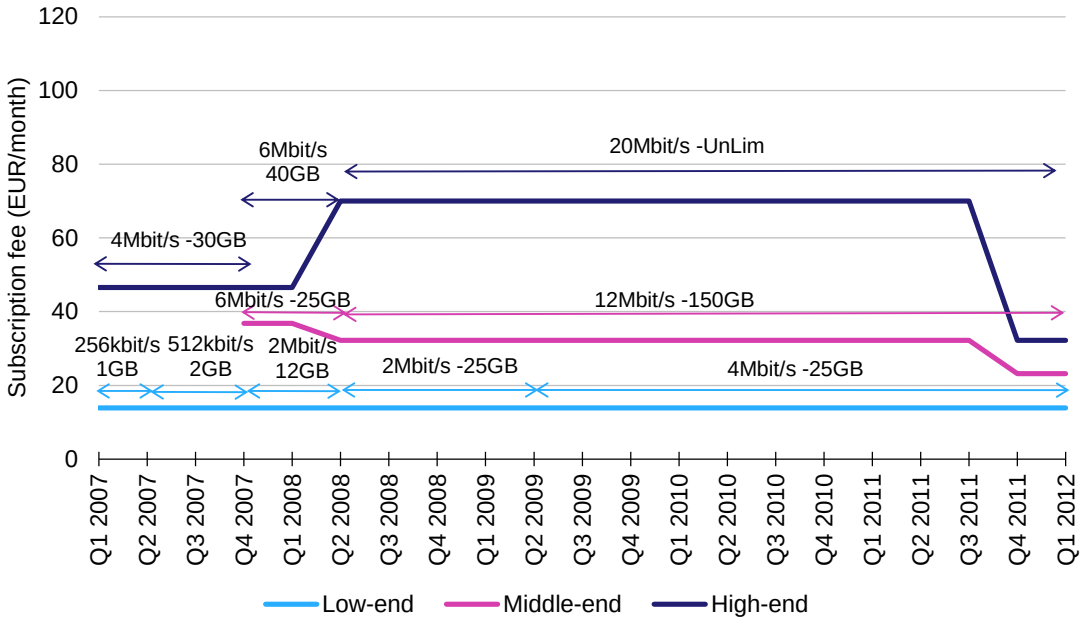
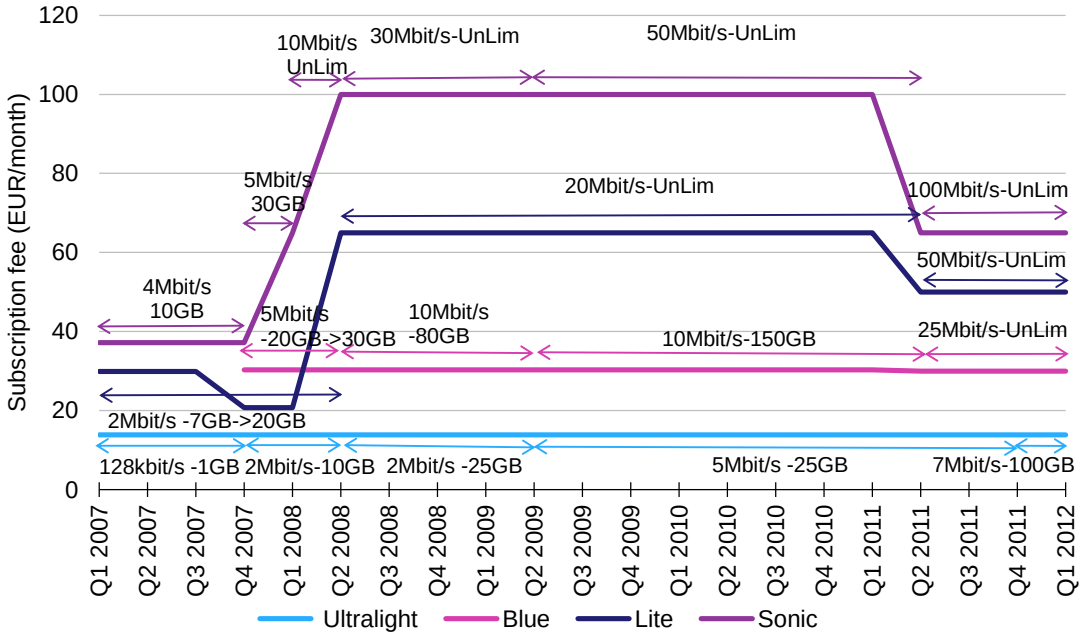


Figure 4.15: Prices for Melita's main broadband offers [Source: MCA]



It is notable that, although the prices for low- to mid-end offers remained relatively flat when their characteristics (i.e. speeds, volume caps) improved significantly over time, the price of higher-end offers fell strongly between 2007 and 2011. For instance, while the price of these higher-end offers was around EUR70 per month (for GO) and EUR100 per month (for Melita) in 2008, it was cut significantly in mid-2011 to around EUR35 per month (for GO) and around EUR65 per month (for Melita).

The observed increase in broadband speeds for the same prices translates into continuous reductions in the price per Mbit/s since 2007. Overall, prices per Mbit/s dropped from around EUR7 per month in 2007 to around EUR3 at the end of 2010, and finally to less than EUR2 in 2011, as shown in the two figures below.

Figure 4.16: Price per Mbit/s for GO's offers [Source: MCA]

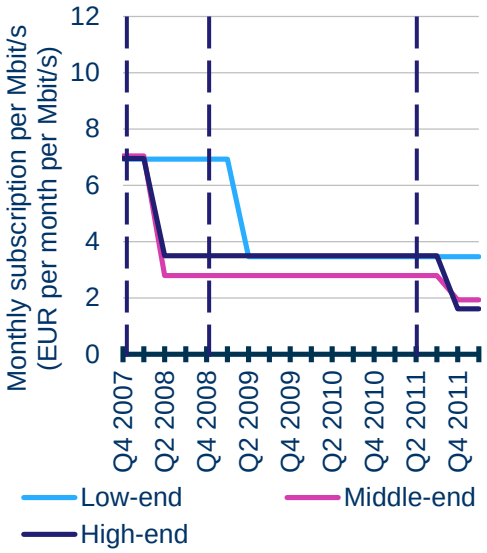
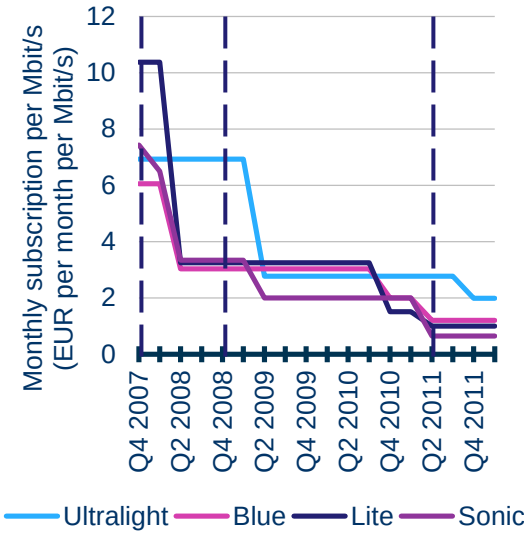


Figure 4.17: Price per Mbit/s for Melita's offers [Source: MCA]



The two figures below compare the headline price and the price per Mbit/s in Malta for the benchmark countries. As shown in Figure 4.18, Malta is quite well in line with benchmarks in terms of the range of headline prices. In terms of price per Mbit/s (shown in Figure4.19), Malta is also in the middle range of the benchmark countries. Although the lowest price per Mbit/s in Malta, EUR0.7 per month, is more than twice that of Hungary, Portugal and France, Malta is still below many other benchmark countries.

Figure 4.18: Price range for broadband subscriptions in benchmark countries [Source: MCA, OECD, September 2010]

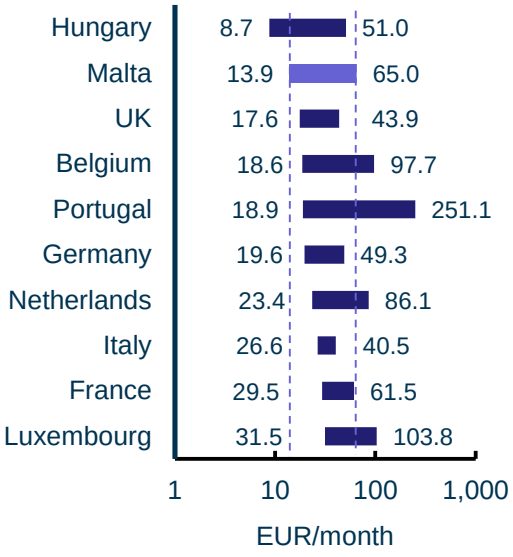
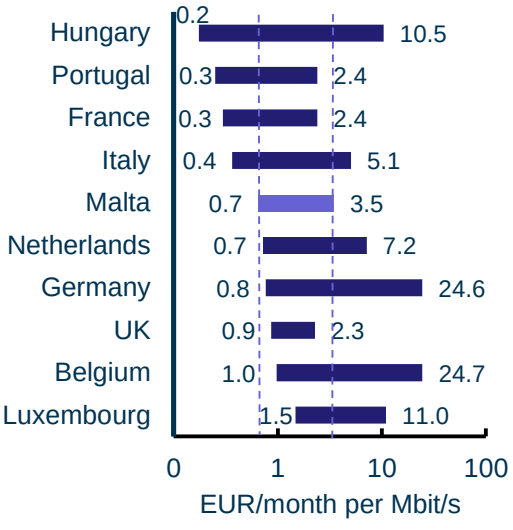


Figure4.19: Price range for broadband subscriptions per Mbit/s in benchmark countries [Source: MCA, OECD, September 2010]



Note: The vertical dotted lines highlight the range of prices in Malta.

Bundles

GO and Melita entered the broadband market at the same time in 2000, and they are vertically and horizontally integrated. They are also both in a position to offer converged services:

- GO has historically operated fixed, mobile and broadband networks. It entered the TV business in 2007, when it acquired the first digital terrestrial TV operator (Multiplus).

- Meanwhile, Melita historically offered cable TV since 1991, started offering broadband services in 2000 and entered the fixed telephony market in 2005. It then entered the mobile business in 2007, with the acquisition of the third 3G mobile operator.

Both incumbents are therefore able to provide multiple service offerings that can include quadruple-play services. As a result, they have stimulated the market to such an extent that bundles in Malta are becoming the market standard, particularly triple- and quadruple-play bundles. As illustrated in Figure 4.20 below, 55% of households subscribed to some form of bundle in mid-2011, up from 42% of households a year earlier. The penetration of bundles in Malta lies in the middle of the benchmark range (see Figure 4.21). However, considering the historical trends, the take-up of bundles may well increase significantly further in future.

Figure 4.20: Evolution of share of bundles[29] in Malta [Source: MCA, Euromonitor]

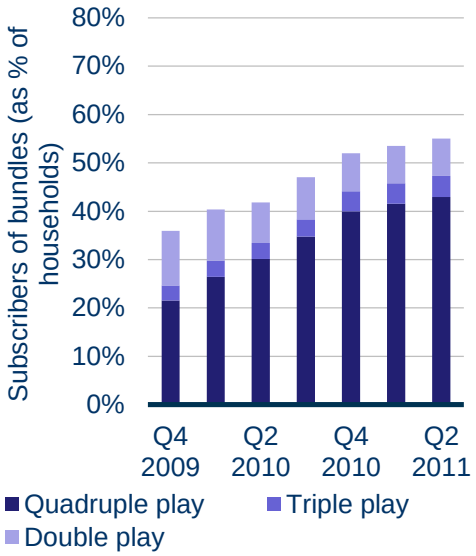
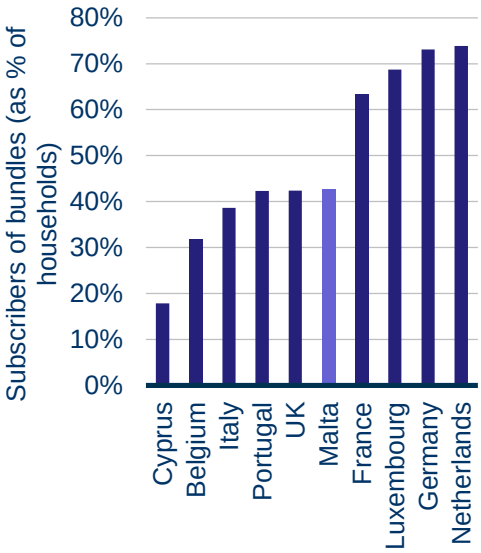


Figure 4.21: Penetration of bundles in the EU [Source: MCA, Euromonitor, EC's 'Digital Agenda scoreboard', June 2010]



Conclusion on the main structuring factors in the market

On the basis of the analysis above, it can be concluded that the retail broadband market in Malta is well developed, with high penetration, attractive offers and a relatively competitive market. Notable factors that contribute to this conclusion are:

- the high broadband coverage
- the availability of high-speed packages
- the high take-up rate of bundles
- the reasonably low entry price
- the existence of two competing infrastructures, and
- the good level of competition between GO and Melita (with both price and product competition).

4.3.2 Other factors affecting competition in the market

This section reviews in turn a number of other factors that have an impact on competition in the market at the retail level:

- economies of scale and scope
- sunk costs and infrastructure not easily replicable
- vertical and horizontal integration
- barriers to switching
- countervailing buyer power.

[29] A bundle is defined as a commercial offer from a single operator which includes two or more services (such as fixed and mobile telephony services, access to TV programmes and broadband Internet access) under a single bill.

Economies of scale and scope

Melita and GO enjoyed a legal monopoly until the liberalisation of the sector, which took place in 2001 for cable television and in 2003 for fixed telephony services. In the broadcasting transmission market, Melita enjoyed a de-facto monopoly until 2005 when Multiplus (subsequently taken over by GO) entered the market with its digital terrestrial services. This enabled Melita and GO to establish very strong positions in the provision of cable television and fixed telephony services, respectively. As a result, over time both companies acquired significant economies of scale and scope over their respective networks. In addition, the provision of broadband services over both networks increased network utilisation, and increased the economies of scale and scope for both operators.

Originally in the mobile market, Vodafone entered the broadband market in 2007, but its broadband subscriber base remained limited, and four years after launch Vodafone has decided to stop offering this service to new clients. Given the small size of its broadband customer base, and despite re-using some elements of the network for mobile and fixed broadband (e.g. billing infrastructure), Vodafone only enjoys very limited economies of scale and scope in the provision of broadband services, compared to those of GO and Melita.

Given the very small size of each individual ISP and the fact that third-party DSL ISPs do not own a network but instead make use of GO's DSL infrastructure, ISPs do not benefit from a similar level of economies of scale and scope to GO and Melita.

Sunk costs and infrastructure not easily replicable

Deployment of a copper telephone network or a cable HFC network requires substantial investment, of the order of several hundred million (or possibly even billions) of euros. A sizeable share of this investment relates to the digging of trenches or the building of poles so that cable can be installed in or above the ground.

Melita and GO received assistance from the Maltese Government for the deployment of their network. For example, the Government included provisions in legislation that permitted Melita to pass its infrastructure over private property (whether underground or overhead), without the need to pay remuneration. Similarly, during its time as a mainly government-owned incumbent (until partly privatised in 1998), GO rolled out its copper telephone network nationwide with Government support, like many other European incumbents. For this reason, it would be extremely difficult for another player to replicate either of these infrastructures, as the legal environment and the economics of the roll-out would necessarily be much less favourable today.

In contrast, it would be significantly easier to replicate Vodafone's WiMAX infrastructure or the core network infrastructure deployed by ISPs.

Vertical and horizontal integration

The two strongest players in the retail market are vertically integrated, since their network roll-out and operations activities (which would typically be performed by a wholesale arm) are integrated with their marketing, sales and retailing activities (which would typically be performed by a retail arm).

Furthermore, Melita and GO are also horizontally integrated and are present in the telephony and television distribution markets. Through multiple service offerings, both Melita and GO can gain additional broadband subscribers by leveraging their presence in other markets. This further accentuates the strong position that these operators have in the broadband market.

Vodafone is also vertically integrated, as it both owns a WiMAX network and used to retail WiMAX-based services. However, Vodafone has ceased offering WiMAX-based broadband products. Meanwhile, ISPs are not vertically integrated, because they provide their retail broadband products based on wholesale products.

Barriers to switching

In the retail market, the main barrier to switching from one broadband product to another is the commitment period, generally around two years for multiple-play products. For instance, the MCA's latest research on consumer perceptions indicated that around 40% of the respondents who knew their subscription period were on a two-year contract[30]. Whilst early termination fees vary between operators and type of contracts, the MCA is of the opinion that the barriers to switching are in general not deterring churn between operators.

Despite this, it should be noted that the trend towards bundling is also one that tends to increase the barriers to switching. When consumers subscribe to several products such as fixed telephony and TV from a single supplier, they find it harder to switch to a different service provider; this was demonstrated by the consumer survey, in which bundling was the second most stated reason why consumers find it difficult to switch[31].

Countervailing buyer power

Individually, retail residential customers have no significant countervailing buyer power. Consumers can at best indirectly influence the operators' behaviour through their purchasing pattern, which in turn varies in accordance with the offers launched

30 One third of respondents did not know the length of their subscription period [Source: MCA Consumer Perception Survey, 2011].

31 The most commonly stated reason related to wiring, modems and other in-home issues [Source: MCA Consumer Perception Survey, 2011].

in the market. As consumers can switch between operators, it is in the interest of these operators to offer broadband packages which are appealing to customers.

However, the level of countervailing buyer power of the individual retail customer is limited, and is likely to be superior in the case of non-residential retail customers (who negotiate larger telecoms contracts with operators).

4.3.3 Prospective view on the market

The MCA considers that the following points may have an impact on the market within the timeframe of the current market review:

- the demand for greater speeds and for bundles
- the roll-out of NGA networks.

Demand for greater speeds and more bundles

The recent evolution of the Maltese retail broadband market has been primarily driven by the demand for greater speeds and the increasing role played by bundles. As discussed in previous sections, the same developments have also occurred in most other EU Member States. Additional evidence of this trend is the MCA's 2011 consumer survey, which indicates that speed is one of the top three factors for consumers when choosing a service provider[32].

In terms of speeds, Melita launched speeds of up to 100Mbit/s over its DOCSIS3.0 network, while GO's offering has so far been limited to 20Mbit/s. However, GO has concentrated on overcoming the limitations of DSL (which mean that the higher speeds are only available to those end users with shorter line lengths). GO has taken steps to reduce the length of copper pairs to increase the proportion of end users who are able to subscribe to GO's maximum speeds. This is a major company-wide project (the "1.5-km project") with the ultimate objective of shortening all end-user lines to a distance of less than 1500m. The project involves rolling out fibre to a number of street cabinets (i.e. FTTC). At present, GO only offers ADSL2+ speeds from street cabinets. However, with GO's roll-out of FTTC, the MCA is of the opinion that the operator can in the near future start offering higher speeds, when it chooses to upgrade its equipment at the cabinet.

Roll-out of NGA networks

Another initiative which might have an impact on the market during the timeframe of the market review is the Government's plan to foster the roll-out of an FTTH network under a national broadband plan. This programme is part of the "Vision 2015" programme, under which the government is aiming to maintain developments in the

[32] The first two reasons are prices and service reliability [Source: MCA Consumer Perception Survey, 2011].

ICT, e-health and e-learning sectors. The Government also seeks to adopt a model which will require the minimum public funding, relying on a variety of investment and operational models.

At this stage, it is still unclear to what extent this initiative will be supported by market players, or what the timeframe will be for roll-out of this new FTTH infrastructure. The MCA will therefore monitor forthcoming developments closely, and assess the impact this may have on the broadband markets.

4.4 Conclusion on the retail broadband market

As discussed in previous sections, the retail broadband market in Malta is well developed, with high penetration, attractive offers and overall a relatively competitive level. There are two vertically and horizontally integrated "incumbents" with two different infrastructures, each enjoying what can be assumed to be comparable economies of scale and scope. The incumbents compete on the basis of prices and products, thus bringing reasonably low prices and innovation, such as bundles and higher speeds.

However, Vodafone has failed to make an impact on the market, which is increasingly moving towards multiple-play services. Also, despite the current good level of competition in the market, the two established incumbents may have a common long-term interest in protecting revenues from their existing customer base by reducing the level of competition at a later stage. The MCA will therefore pay close attention to forthcoming developments, and the impact these might have on the broadband markets.

Q2. Do you agree with the above preliminary conclusions regarding the market analysis of the retail broadband market in Malta?

In view of the above, the MCA will now review the most upstream markets (the market for unbundled access and the wholesale broadband market) and consider imposing obligations on these upstream wholesale markets, if required. When considering obligations in the wholesale markets, the MCA will assess whether wholesale regulation may adequately promote competition in the retail market.

5. Review of the market for unbundled access

This section presents the review of the market for wholesale unbundled access to the local loops. This section includes a delineation of the wholesale market, analyses this market to identify potential players with SMP and concludes with the regulations and remedies to be imposed on this market.

It is structured as follows:

- Section 5.1 proceeds with the market definition of the market, in terms of the relevant product market and geographical scope of the market.
- Section 5.2 analyses the key factors affecting competition on, and the development of, this market. This section also assesses whether any player can be deemed to enjoy SMP in the market.
- Section 5.3 discusses the proposed remedies to be imposed in this market

5.1 Definition of the market for unbundled access

Regulation 9 of the ECRA provides that before a determination of market power may be considered, the MCA must identify the markets in relation to which it is appropriate to consider such a determination and to analyse that market taking into account national circumstances. In identifying the relevant markets, the MCA is required to take full account of all applicable guidelines and recommendations issued by the Commission.

In its 2007 Recommendation, the Commission identified the market for wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location (Market 4). As underlined by the Commission in its Explanatory Memorandum to the 2007 Recommendation, "*markets should be examined in a way that is independent of the network or infrastructure being used to provide services, as well as in accordance with the principles of competition law*"[33]. The Commission also considers that "*when defining markets taking into account this Recommendation, NRAs should analyse on a case-by-case basis substitutability of services provided using these various technologies, thereby taking the principle of technology-neutral regulation as a starting point*"[34].

This approach underpins the MCA's analysis. The MCA has conducted an assessment of the market for unbundled access in order to validate its appropriateness in light of

[33] Explanatory Memorandum to Commission Recommendation of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services - C(2007) 5406, p.19.

[34] *Ibid.*, p.30.

the national circumstances, and as preparatory work for the assessment of SMP in this market.

Below we outline the MCA's findings, setting out the different products that the MCA has identified, and giving reasons for its conclusions. The remainder of this section outlines the findings from the MCA's review of the market for unbundled access (Market 4), identifying the relevant products and services in this market.

5.1.1 Main players and offers in the market

Since 2003, GO has had the obligation to publish a RUO for local loop unbundling (LLU) as a result of the obligations imposed by the Maltese regulatory framework (prior to Malta's accession to the EU). This obligation was confirmed by the first round of market reviews of the market for wholesale unbundled access in 2006.

In the context of various evolutions of the market, GO's original RUO has been reviewed and amended several times on the initiative of the MCA. For instance, in June 2010 the MCA published a decision following a comprehensive review of GO's RUO to ensure that the RUO remained fit for purpose in light of the changing market circumstances[35]. Market players were consulted throughout the entire process and provided important contributions.

The RUO sets out that LLU is available in two different forms:

- *full unbundling* – the ISP has full control over the access line of the end user
- *shared access* – high frequencies are allocated only to the ISP on the end user's access line; this means that the end user may retain a subscription to GO's telephony services using the low frequencies.

For both full unbundling and shared access, LLU may be achieved at different levels in the network:

- *at the local exchange level* – this is the 'standard' access to the local loop
- *at the street-cabinet level* – also known as access to the local sub-loop.

The RUO provides a detailed description of the technical specifications required of any equipment used on unbundled lines. It also details the technical and tariff conditions of co-location services and all services associated with the connection of equipment by ISPs.

As a result, the RUO is organised around the following services offered to ISPs:

- metallic path full unbundling

[35] MCA/D/11-0690, GO's Reference Unbundling Offer: Report on Further Consultation and Statement of Decision on the Review of Sub-Loop Unbundling Related Aspects of the Reference Unbundling Offer, http://www.mca.org.mt/sites/default/files/articles/SLU%20decision%20201211.pdf

- metallic path shared access
- metallic path sub-loop full unbundling
- metallic path sub-loop shared access
- co-location and related facilities.

5.1.2 Definition of the relevant product market

The purpose of the market definition process is to identify the field in which competitive constraints act on electronic communications service providers. There are two dimensions to the definition of a relevant market: the relevant products and services to be included in the same market, and the geographical scope of the market. The MCA follows the approach to market definition proposed by the Commission, which is itself based on competition law.

The 2002 Commission guidelines on the analysis of markets and effective competition under the regulatory framework for electronic communications networks and services (hereinafter referred to as 'the Commission Guidelines') state that "*market definition is not a mechanical or abstract process but requires an analysis of any available evidence of past market behaviour and an overall understanding of the mechanics of a given sector. A dynamic rather than a static approach is required when carrying out a prospective, or forward-looking, market analysis.*"[36]

As underlined by the Commission, "*the relevant product/service market comprises all those products or services that are sufficiently interchangeable or substitutable, not only in terms of their objective characteristics, by virtue of which they are particularly suitable for satisfying the constant needs of consumers, their prices or their intended use, but also in terms of the conditions of competition and/or the structure of supply and demand on the market in question*"[37].

The definition of the relevant product market is based on an analysis of demand and supply substitutability between different products and services which could potentially form part of the market under investigation. Below we provide an analysis of the degree of substitutability between the services provided over the copper network in Malta and other available services, taking also a forward-looking approach with respect to possible developments in the market under review. As indicated in the Commission Guidelines, the definition of relevant markets must take into account future developments in the market that are likely to occur during the period under analysis.

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36 Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services (2002/C165/03), p.35. Available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2002:165:0006:0031:EN:PDF.

37 *Ibid.*, p.44.

In light of the above, it follows that, at the wholesale level, the definition of the relevant product market is performed by examining whether:

- unbundled access (including shared access) and wholesale broadband access services are substitutable
- unbundled copper access to the local loop and unbundled copper access to sub-loop services are substitutable
- unbundled copper access and unbundled cable access services are substitutable
- unbundled copper access and unbundled fibre access services are substitutable.

This will help determine the scope of the relevant product market to be analysed.

Unbundled access and wholesale broadband access

Below we provide an analysis of the degree of substitutability between unbundled access and wholesale broadband access services.

► *Demand-side substitutability*

There is no difference in the end retail product (broadband Internet) that can be provided based on either the wholesale unbundled access or the wholesale broadband access products. However, there are some fundamental differences between the two services in terms of their functionality at a wholesale level:

- First, with unbundled access, access seekers have full control over the services they offer. Wholesale unbundled access permits alternative operators to deploy their own DSL equivalent and fully control the technology used to provide broadband services to the end user. Wholesale unbundled access enables the provision of innovative services that are not limited by the incumbent's own technology (e.g. an ISP using unbundled access may roll out VDSL technology even before GO). Unbundled access requires significant upfront investment from an ISP, but then offers the possibility of significant economies of scale: the recurring monthly costs are significantly lower with unbundled access than with wholesale broadband access. Wholesale broadband access offers less flexibility to the ISPs in terms of both technology and business model. ISPs using wholesale unbundled access would therefore not switch to wholesale broadband access in case of a SSNIP of unbundled access.

- Another consideration is the reaction of access seekers in response to a hypothetical price increase by the provider of wholesale broadband access. In this case, given the significant investment related to the implementation of unbundled access products, it would be highly unlikely that an access seeker would consider taking up an unbundled access offer in the short term (within three to six months). Assuming cost orientation on the wholesale unbundled access, a wholesale unbundled access offer will always be cheaper than a wholesale

broadband access offer in terms of its recurring monthly charges. The main obstacle to adopting wholesale unbundled access is the considerable upfront investment required to construct a backhaul network and install equipment in the local exchanges/street cabinets.

In light of these technical and economic issues, the MCA considers that wholesale broadband access and wholesale unbundled access (including shared access) are not substitutable from a demand-side perspective.

► *Supply-side substitutability*

The MCA considered whether existing or new undertakings would be able to easily enter the wholesale unbundled access market at no significant high costs and in the short term, following a price increase of the wholesale unbundled access offer by a hypothetical monopolist.

The question of whether GO would enter the wholesale broadband access market in the event of a SSNIP of wholesale broadband access is irrelevant since GO is already active in this market.

There is also the theoretical possibility of a new PSTN copper infrastructure being deployed by a cable operator or an ISP which already provides wholesale broadband access following a hypothetical price increase. However, the high barriers to entry and timelines involved in the construction of a new fixed network with such extensive coverage makes such an entry an impractical alternative in the timeframe of this review.

In light of the above, the MCA considers that wholesale broadband access and wholesale unbundled access (including shared access) are not substitutable from a supply-side perspective.

► *Preliminary conclusion*

The MCA is of the view that wholesale unbundled access and wholesale broadband access services are not substitutable and therefore should not be included in the same relevant wholesale market. This is in line with common practice in other EU countries.

Unbundled copper access to the local loop and unbundled copper access to the sub-loop

Regulation (EC) No 2887/2000 of the European Parliament and of the Council of 18 December 2000 on unbundled access to the local loop[38] defines two types of loops,

38 Regulation (EC) No 2887/2000 of the European Parliament and of the Council of 18 December 2000 on unbundled access to the local loop JO L 336, 30/12/2000.

the local loop and the local sub-loop. Article 2 states that "'*local loop*' *means the physical twisted metallic pair circuit connecting the network termination point at the subscriber's premises to the main distribution frame or equivalent facility in the fixed public telephone network*" and "'*local sub-loop*' *means a partial local loop connecting the network termination point at the subscriber's premises to a concentration point or a specified intermediate access point in the fixed public telephone network*".

The 2000 Regulation also identifies two types of unbundled access: the "*full unbundled access to the local loop",* and the "*shared access to the local loop*". The full unbundled access consists in "*the provision to a beneficiary of access to the local loop or local sub loop of the notified operator authorising the use of the full frequency spectrum of the twisted metallic pair*", whereas the shared access means "*means the provision to a beneficiary of access to the local loop or local sub loop of the notified operator, authorising the use of the non-voice band frequency spectrum of the twisted metallic pair;*[39]

In its 2007 Recommendation[40], the Commission considers that these two types of unbundled access are substitutable since the relevant market is defined as the "*wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location*". This broad definition means that the different types of unbundled access are included in the same market.

In order to validate these principles in light of the national circumstances in Malta, the MCA analysed the degree of substitutability between these services provided over the copper network and other available services in Malta, taking also a forward-looking approach with respect to possible developments in the market under review.

► *Demand-side substitutability*

Unbundled copper access to both the local loop and the sub-loop provides similar services and speeds. However, unbundled access to the sub-loop allows for higher speeds to be available to a greater number of users because the sub-loop is shorter than the local loop. In any case, both types of unbundled access allow an alternative operator to offer broadband and voices services to end users.

In case of a SSNIP by a hypothetical monopolist supplier on unbundled access to the sub-loop, a new entrant could move to use unbundled access to the local loop, but the opposite would not be possible because of the high investment needed to achieve unbundled access to the sub-loop, and also because such a move would result in a possible degradation of service. For this reason, unbundled copper access to the local

39 *Ibid.*, article 2.

40 Commission Recommendation of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services (notified under document number C(2007) 5406) (2007/879/EC). Available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:344:0065:0069:en:PDF

loop and to the sub-loop are substitutable from a demand-side perspective only in one direction.

► *Supply-side substitutability*

Unbundled access to the sub-loop is a technological evolution of unbundled access to the local loop and network elements are similar. Therefore, an operator offering unbundled access to the local loop could also offer unbundled access to the sub-loop.

Moreover, at present, the same operator, i.e. GO, offers unbundled access to both the local loop and the sub-loop.

In light of the above, unbundled access to the local loop and to the sub-loop are therefore substitutable from a supply-side perspective.

► *Preliminary conclusion*

In line with common practice in other EU countries and the Commission Recommendation and the 2007 EC Recommendation on relevant markets, the MCA is of the view that unbundled access to the local loop and to the sub-loop form part of the same relevant product market.

Unbundled copper access and unbundled cable access

In the 2000 Regulation, the Commission observes that "*[a]lternative infrastructures such as cable television, satellite, wireless local loops do not generally offer the same functionality or ubiquity for the time being, though situations in Member States may differ*"[41]. In the Explanatory Memorandum to the 2007 Recommendation, the Commission also notes that "*the unbundling of cable networks (…) does not appear technologically possible, or economically viable, so that an equivalent service to local loop unbundling cannot be provided over cable networks*."[42]

The MCA has considered whether these observations are applicable to the Maltese market.

► *Demand-side substitutability*

The shared nature of cable access means that a potential physical unbundling of cable is impossible, as it would imply that unbundling a single line would imply unbundling a whole cluster of lines on the same optical node or coaxial amplifier. Indeed, whereas

41 Regulation (EC) No 2887/2000 of the European Parliament and of the Council of 18 December 2000 on unbundled access to the local loop JO L 336, 30/12/2000, recital (6)

42 Explanatory Memorandum to Commission Recommendation of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services - C(2007) 5406, p.31

each customer line is dedicated between the central exchange and the end-user in the case of copper/DSL networks, all users on the same optical node / coaxial amplifier use the same physical cable.

As argued in the ERG common position on Bitstream Access paper, a theoretical option for opening cable network would be to use spectrum unbundling[43]. This option consists in allowing an ISP to install its own CMTS and router in the cable operator's head-end and be allocated upstream and downstream channels within the cable RF spectrum. However, this option would not only have operational issues (such as availability of floor space in head-ends), but would also lead to inefficient use of scarce RF spectrum on the coaxial cable medium which would in turn severely hamper the cable operator. This impact of spectrum unbundling on the cable operator has no equivalent in the DSL world, as the service provided by a DSL OAO to an end user based on LLU has no impact on the offer provided by the incumbent to its own end users. This explains why this theoretical option has never been implemented by any cable operator in the world and is deemed impractical and unreasonable.

As a result and in line with the explanations provided in the MCA's last round of review of Market 4[44], the MCA deems the provision of such a service as being technically unfeasible.

In addition, even if a wholesale cable network infrastructure access product existed, and in the event of a SSNIP of wholesale unbundled copper access, an ISP would not switch to an equivalent cable offer since the cable operator cannot offer a dedicated line on which the ISP would be able to install the equipment of its choice. This is only possible with unbundled copper access.

Therefore, for the abovementioned reasons, the MCA is of the opinion that the unbundled copper access and unbundled cable access are not substitutable from a demand-side perspective.

► *Supply-side substitutability*

There is no such wholesale unbundled access offer over cable in Malta. In addition, as explained above it would not be technically possible for Melita to offer a wholesale product similar to the unbundled copper access offer. As a consequence, the MCA believes that there is no supply-side substitutability between unbundled copper access and unbundled cable access.

► *Preliminary conclusion*

Based on the above, the MCA is of the view that the wholesale unbundled access to the local loop cannot, within the timeframe of this review, be provided over cable

43 http://erg.eu.int/doc/whatsnew/erg_03_33rev2_bitstream_access_final_plus_cable_adopted.pdf

44 MCA's Market review of Wholesale Unbundled Access to the Local Loop, May 2007

network. Therefore, the MCA considers that unbundled copper access and unbundled cable access do not fall within the same market. This conclusion, in line with conclusions reached by several NRAs and in particular the BIPT[45] and the French NRA[46], is similar to that argued by the MCA in the last round of market review on the market for wholesale unbundled access.

Unbundled copper access and unbundled fibre access

The definition of Market 4 given by the Commission in its 2007 Recommendation is not limited to metallic loops and sub-loops and includes all the relevant active and passive infrastructures on the basis of the principle of technological neutrality. Market 4 is defined as "*wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location".* In addition, in its NGA Recommendation,[47] the Commission highlights that the review of Market 4 and Market 5 should take account of next-generation access (networks).

On the basis of the Commission's recommendations and given the latest market developments in Malta, the MCA has examined the degree of substitutability between unbundled copper access and unbundled fibre access to determine if these two services form part of the same relevant market.

► *Demand-side substitutability*

The principle of technological neutrality urges the MCA to consider that within the timeframe of the present market review, unbundled access over fibre and unbundled copper access are falling within the same relevant market.

Fibre is currently being deployed in Malta and is likely to replace the copper network in the future. From an economic point of view, it will be nearly impossible to duplicate this infrastructure, similarly to the fact that the unbundled copper network cannot currently be duplicated.

Similar competitive constraints exist between unbundled copper access and unbundled fibre access since the two access networks will be capable of offering these unbundling services.

The MCA considers that where the two products co-exist, there will be one-way substitutability: in case of a SSNIP by a hypothetical monopolist of unbundled copper

45 Décision de la Conférence des Régulateurs du Secteur des Communications Electroniques (CRC) du 1er juillet 2011 concernant l'analyse des marchés large bande

46 ARCEP, projet de décision notifié à la Commission le 27 avril 2011, Marché de gros des offres d'accès aux infrastructures constitutives de la boucle locale filaire (Marché 4)

47 Commission Recommendation of 20 September 2010 on regulated access to NGA (2010/572/EU), article 5. Available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:251:0035:0048:EN:PDF.

access, a competitive operator will seek unbundled fibre access, but probably not the other way round.

► *Supply-side substitutability*

Fibre unbundling is not commercially available in Malta.

In case of a SSNIP by a hypothetical monopolist of wholesale unbundled access to the fibre local loop, an operator supplying wholesale unbundled access to the copper local loop would still not seek to offer unbundled access to fibre because of the very large investment required to deploy such a network.

► *Preliminary conclusion*

The MCA considers that unbundled fibre access and unbundled copper access services form part of the same relevant product market when the two products co-exist. This is because fibre access is a technological evolution of local unbundled access, similarly to the evolution from unbundled access to the local loop to unbundled access to the sub-loop.

This is in line with the experience and practice in other EU countries since the publication of the Commission's NGA Recommendation.

5.1.3 Relevant geographical market

The Commission guidelines on market analysis and the assessment of SMP[48] ('the EU Guidelines') set out that a relevant geographical market comprises the area in which the undertakings concerned are involved in the supply of, and demand for, products and/or services, in relation to which the conditions of competition are sufficiently homogeneous and which can be distinguished from neighbouring areas because the conditions of competition are appreciably different to those areas.

According to the EU Guidelines, the definition of the geographical scope of the relevant market in the electronic communications sector is generally determined with reference to the area covered by a network and to the existence of legal and other regulatory instruments.[49]

The existing conditions of competition are homogeneous in Market 4 at a national level. GO is the only operator in Malta that provides unbundling access services; its copper network covers the whole country; the characteristics of its prices and products are homogeneous at the national level; and the regulatory remedies are imposed at the national level.

48 Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services (2002/C 165/03), paragraph 56. Available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2002:165:0006:0031:EN:PDF.

49 *Ibid.*, paragraph 59.

In light of the above, the MCA considers that the geographical market for the relevant product and service markets under consideration is national in scope.

5.1.4 Conclusion on the market definition for unbundled access market

From the analysis outlined above, and in line with the Commission's recommendations, the MCA concludes that Market 4 is national in scope:

- includes all unbundled access (including shared access) products and services provided via the existing broadband copper network (including access to the sub-loop)
- includes unbundled access services over fibre
- excludes wholesale broadband access services
- excludes wholesale services provided over cable.

Q3. Do you agree with the above preliminary conclusions regarding the market definition of the wholesale market for unbundled access?

5.2 Analysis of the market for unbundled access and determination of SMP

5.2.1 Major structuring factors in the market

This section discusses the following major structuring factors in Malta's wholesale market for unbundled access:

- market size, market shares and concentration
- review of wholesale prices.

Market size, market shares and concentration

GO is the sole provider of wholesale unbundled access in Malta. However, to date, no unbundled lines are in operation due to a lack of interest from market players. In early 2011, Vodafone entered into negotiations with GO regarding the operational conditions for LLU, and eventually signed an agreement on the unbundling of a number of exchanges. However at the end of 2011 Vodafone abandoned the project as GO was migrating to FTTC and Vodafone's plans did not include the deployment of SLU.

The MCA is of the opinion that GO would be deemed as having SMP in the market for unbundled access given that it is the sole provider of wholesale unbundled access in Malta, even though no unbundled lines are currently in operation.

Even if GO's self-supplied lines are included in the MCA's definition of the relevant market, this would imply that GO has 100% market share in the wholesale market for unbundled access, which would also suggest that GO has SMP in this market.

Review of wholesale prices

The prices for full unbundling and shared access in Malta have remained stable since 2006 at EUR9.37 and EUR1.87 per month per line for full unbundling and shared access, respectively. Both values are in the medium to high range of our benchmark (as illustrated in Figure 5.2 below). However, when compared with the European average, the prices in Malta are close to the European average. Note that the relatively stable prices for full unbundling and shared access in Malta are also a result of the lack of unbundled lines in operation.

Figure 5.1 and Figure 5.3 respectively show the evolution of prices for full unbundling and shared access in Malta, whilst Figure 5.2 and Figure 5.4 illustrate how these prices vary in the benchmark countries.

Figure 5.1: Evolution of the prices for full unbundling in Malta [Source: MCA, EC]

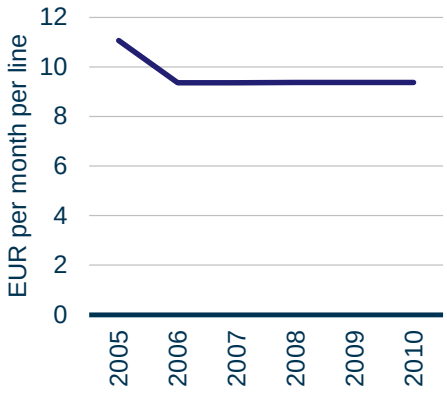


Figure 5.2: Full unbundling prices in benchmark countries, 2010 [Source: MCA, EC]

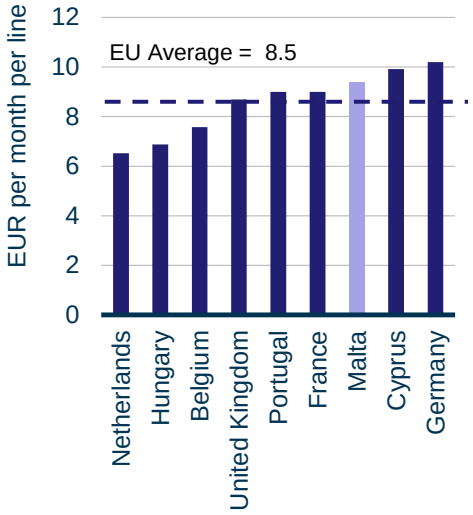
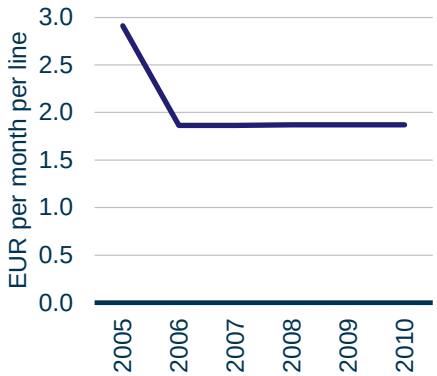
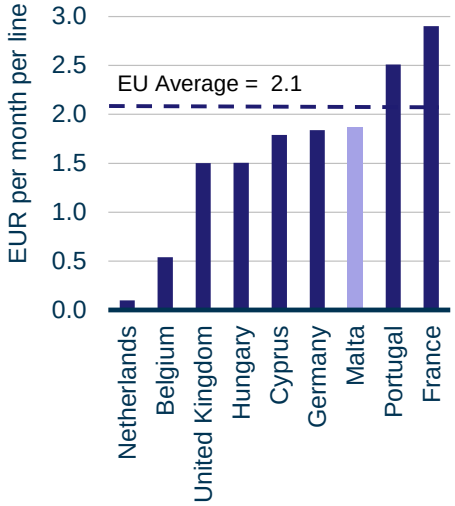


Figure 5.3: Evolution of the prices for shared access in Malta [Source: MCA, EC]

Figure 5.4: Shared access prices in benchmark countries, 2010 [Source: MCA, EC]





5.2.2 Other factors affecting competition in the market

This section reviews in turn a number of other factors that have an impact on competition in the wholesale market:

- economies of scale and scope
- sunk costs and infrastructure not easily replicable
- vertical and horizontal integration
- barriers to switching
- countervailing buyer power.

Economies of scale and scope

Given the ubiquity and the high density of its network, GO enjoys economies of scale in the provision of wholesale unbundling services. GO owns all the copper pair connections in Malta and therefore it is likely that the unit cost of providing the wholesale input for this service would be lower than that of a new entrant.

The same infrastructure used for the provision of unbundled access can be utilised for the provision of other services such as retail or wholesale telephony. This is especially the case as GO has a ubiquitous network and is in turn present in a number of markets such as the market for retail access to the public telephone network provided at a fixed location. Thus, the MCA considers economies of scope contribute to GO's ability to provide wholesale unbundled access at significantly lower costs than any other new alternative provider.

GO's ability to take advantage of the combined benefits resulting from economies of scale and scope confirms that GO is likely to enjoy SMP in the market for wholesale unbundled access.

Sunk costs and infrastructure not easily replicable

The significant sunk costs incurred by GO in deploying its network have been discussed in Section 4.3.2 of this consultation document. These sunk costs are principally related to digging trenches or building poles to lay cable in or above the ground.

A potential entrant in the market for wholesale unbundled lines will only incur these costs if it expects to receive a sufficient return on its investment to cover such costs.

To date, no operator in Malta has deployed any unbundled lines. For this reason, it is unlikely to be economically feasible for any new entrant to replicate GO's network infrastructure for the provision of wholesale unbundled lines during the time frame of this review.

In conclusion, the barriers to entering the Maltese market for wholesale unbundled lines are high due to the difficulty of replicating GO's infrastructure.

Vertical and horizontal integration

GO is the only provider in Malta of wholesale unbundled lines and also provides the majority of retail PSTN lines. GO's strong position in this market is further accentuated by the fact that GO operates in a number of other fixed markets and provides a wide range of services over its infrastructure. As a result, a new entrant would find it difficult to enter the market for unbundled access and erode GO's strong position in this market within the time frame of this review.

The MCA is of the view that all these factors present major barriers for alternative operators to entering the market for wholesale unbundled lines, thus limiting competition in this market.

Barriers to switching

The competitive advantage of the incumbent operator may be reduced when customers have the option to switch to another supplier. As noted earlier, it would be very difficult for a new entrant to replicate GO's infrastructure due to the economies of scale and scope that GO enjoys, as well as the significant sunk costs the new operator would have to incur. This – in itself – presents a barrier for customers to switching from GO to another service provider at the wholesale level. As a result, GO faces no competitive threat from alternative operators in Malta in terms of customer switching.

Countervailing buyer power

GO is the sole provider of LLU in Malta. This implies that any large company making use of wholesale unbundled lines and which also purchases a suite of other wholesale services from GO could not exert sufficient countervailing buyer power to pose a serious price constraint on the price of wholesale products in the absence of regulation. In the absence of a feasible alternative, GO would not face any countervailing buyer power from its customers. This might also be confirmed by the previously illustrated case of Vodafone's LLU negotiations with GO, which fell through in the end, possibly as a result of the lack of countervailing buyer power from Vodafone.

5.2.3 Prospective analysis

The MCA considers that the following points may have an impact on the market within the timeframe of the current market review:

- GO's roll-out of FTTC
- the Maltese government's FTTH initiative.

GO's roll-out of FTTC

GO has embarked on a phased programme to install active DSL equipment in its street cabinets (known as the '1.5km project'), and can potentially decommission a number of exchanges in the future. Several other European incumbent operators (such as KPN in the Netherlands and Belgacom in Belgium) are also going through the same process of closure of local exchanges as they roll out FTTC.

This will have a significant impact on the market for unbundled lines in Malta, as access to the local loop from the local exchange may no longer be available as exchanges are closed down. This means that the access to the sub-loop is likely to become the predominantly product offered in Malta. As a result, LLU is likely to generate even less interest than before as several European studies show that the business case for sub-loop unbundling is commercially unviable[50] – even in a dense country such as Malta.

This is the main rationale underpinning the amendments proposed by the MCA in its notification submitted to the Commission on 2 November 2011 concerning the remedies to be imposed on Market 4 in Malta (see Section 3.1 of this consultation document for further details). However, the possible impact of GO's roll-out of FTTC on local loop unbundling should still be kept in mind in the context of the analysis of the market for unbundled access.

[50] One such study is "The business case for sub-loop unbundling in the Netherlands, Final Report for OPTA", 2007 by Analysys.

The Maltese government's FTTH initiative

The Maltese government is promoting the roll-out of a country-wide open-access FTTH network, based on co-investment and government subsidies. If several market players, including GO, take part in this initiative, this may have a significant impact on the analysis of Market 4. Indeed, "*depending on the characteristics of the arrangement between the co-investors, the scheme can result in situations that are close to a monopoly or situations that are close to competition if the agreement can ensure efficient competition and grant partners sufficient independence*",[51] according to the BEREC.

The MCA will therefore monitor the forthcoming developments and the impact they may have on the market for unbundled access closely.

5.2.4 Conclusion of the market analysis

Based on the previous analysis and evidence, the MCA considers that GO enjoys SMP in the market for the provision of wholesale unbundled access to the local loop.

This conclusion is supported by a number of factors including GO's position as sole provider in the market, its vertical and horizontal integration, its economies of scale and scope, and the lack of countervailing buyer power.

Q4. Do you agree with the above preliminary conclusions regarding the market analysis findings for the wholesale market for unbundled access?

5.3 Regulation and remedies

According to Regulation 5(4) of the ECNSR, the MCA is obliged to impose appropriate regulatory remedies on an operator that is designated as having SMP in a relevant market, either individually or jointly with others, or to maintain or amend such obligations where they already exist.

Regulation 19 of the ECNSR requires the MCA to impose on an operator designated as having SMP in a relevant retail market such obligations as it considers appropriate to achieve the objectives set out in Article 4 of the ECRA.

[51] *Draft BEREC report on co-investment and SMP in NGA networks*, 8 December 2011

This section discusses the actual and potential competition problems that exist in the defined markets, and proposes adequate remedies to address the problems identified.

5.3.1 Competition problems

The MCA has identified a number of competition problems arising from the dominance held by GO on the market for unbundled access, primarily the risk of leveraging. SMP operators may exercise leveraging in one of two forms, as discussed below.

Vertical leveraging

This applies when a dominant firm denies access to an essential input that it provides with the intent of extending its power from one segment of the market (the bottleneck segment) to the other (the potentially competitive segment). Such practice may be both price-related and non price- related. This definition is in line with the ERG's definition which states that vertical leverage corresponds to "*any dominant firm's practice that denies proper access to an essential input it produces to some users of this input, with the intent of extending monopoly power from one segment of the market (the bottleneck segment) to the other (the potentially competitive segment)*."[52]

The MCA believes there is potential for vertical leveraging in the wholesale market under review.

The MCA believes that non-price leveraging strategies such as denial of access, the discriminatory use or withholding of information, delaying tactics, quality discrimination and the imposition of undue requirements on, and with respect to, potential alternative service providers at the downstream level, may contribute significantly to the creation of a non-competitive environment.

Furthermore, GO is a vertically integrated operator which is dominant in an upstream market, which may as a result, unless prohibited by effective regulatory intervention, engage in pricing that gives rise to a margin squeeze. Furthermore, GO is able to access economies of scale and scope that are not so readily available to other operators competing on the downstream market, and therefore GO may exercise additional pressure on the margins of these operators. GO may also use other price-leveraging strategies such as price discrimination and cross-subsidisation.

52 ERG, Revised Common position on the approach to the appropriate remedies in the new regulatory framework, Final version May 2006, ERG(06)33, p.29. Available at http://www.erg.eu.int/doc/meeting/erg_06_33_remedies_common_position_june_06.pdf.

Horizontal leveraging

In line with the ERG definition,[53] the MCA considers that horizontal leveraging applies when the dominant undertaking uses its position in one market to exert undue influence on other markets at the same level in the value chain. This form of leveraging can be exercised by GO as it operates in a number of horizontal wholesale markets and can potentially leverage its power from one market to another.

Preliminary conclusion

The competition problems outlined above are further exacerbated by the fact that GO has single market dominance in the relevant markets under review, which may increase the likelihood of GO exercising anti-competitive or exploitative practices.

5.3.2 Principles and available remedies

As discussed elsewhere in this consultation document, the MCA is obliged under the ECNSR to impose at least one of the remedies outlined in the Regulations on undertakings with SMP. In particular, the following obligations may be imposed:

- transparency (Regulation 12)
- non-discrimination (Regulation 13)
- accounting separation (Regulation 14)
- access to, and use of, specific network facilities (Regulation 15)
- price control and cost accounting (Regulation 16).

In accordance with Regulation 11(4) of the ECNSR and Article 8.4 of the Access Directive, the MCA is obliged to ensure that any remedy imposed on undertakings with SMP shall be based on the nature of the problem identified and be proportionate and justified in the light of the objectives laid down in Article 4 of the ECRA. Remedies imposed shall operate in such manner as to protect end-user interests whilst promoting effective competition in the relevant markets.

The MCA is obliged to impose the least burdensome and most effective remedy or remedies to address the potential competition problems identified in the market for unbundled access. This principle of proportionality is an important part of all regulatory decisions,[54] but is particularly important when it comes to fixing remedies. Depending on the competition problem being addressed, an interaction between diverse remedies may be necessary. Thus, the available remedies detailed above are complementary in that they support and reinforce each other.

53 *Ibid.*, p.33.

54 Article 8(1) of the Framework Directive.

In selecting the remedies to impose on the designated SMP operator, the MCA has considered the nature of the problem identified. In accordance with the principle of proportionality, where necessary, the MCA will impose the least-burdensome remedies that nevertheless permit the MCA to achieve the objectives listed in Article 8 of the Framework Directive and Article 4 of the ECRA. The MCA has also taken account of potential effects on any related markets.

The principles applied by the MCA are in line with the principles of the European framework highlighted by the ERG in its common opinion on remedies, as follows: "*the NRA must produce reasoned decisions in line with their obligations under the Directives. This incorporates the need that the remedy selected be based on the nature of the problem identified. The problem(s) in the market will have already been identified in the market analysis procedure. Decisions must include a discussion on the proportionality of the remedy. These decisions should include, for any given problem, consideration of alternative remedies where possible, so that the least burdensome effective remedy can be selected. The decisions should also take into account the potential effect of the proposed remedies on related markets*".[55]

The MCA has done its utmost to ensure that the remedies chosen will be incentive compatible. This means that the MCA has selected and designed the remedies to be imposed in a manner that ensures that benefits from compliance with the remedy by the undertaking identified as having SMP outweigh the benefits of evasion. Incentive-based remedies help ensure that remedies are effectively implemented without undue enforcement burden.

Finally, remedies should also encourage investment. As stated in the Better Regulation Directive 2009/140/EC, "*it is necessary to give appropriate incentives for investment in new high-speed networks that will support innovation in content-rich Internet services and strengthen the international competitiveness of the European Union. Such networks have enormous potential to deliver benefits to consumers and businesses across the European Union. It is therefore vital to promote sustainable investment in the development of these new networks, while safeguarding competition and boosting consumer choice through regulatory predictability and consistency.*"[56] Furthermore, as recommended by the European Framework, "*both efficient investment and competition should be encouraged in tandem, in order to increase economic growth, innovation and consumer choice*."[57]

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55 ERG, Revised Common position on the approach to the appropriate remedies in the new regulatory framework, Final version May 2006, ERG(06)33, p.52. Available at http://www.erg.eu.int/doc/meeting/erg_06_33_remedies_common_position_june_06.pdf.

56 Directive 2009/140/EC, Preamble (8) Directive 2009/140/EC of the European Parliament and of the Council of 25 November 2009 amending Directives 2002/21/EC on a common regulatory framework for electronic communications networks and services, 2002/19/EC on access to, and interconnection of, electronic communications networks and associated facilities, and 2002/20/EC on the authorisation of electronic communications networks and services. Preamble (8). Available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:337:0037:0069:EN:PDF.]

57 *Ibid.*, Preamble (53).

5.3.3 Remedies imposed

The MCA has concluded that the obligations it proposes to impose are based on the nature of the competition problems it has identified in the relevant markets and are proportionate and justified in light of the objectives set out in Article 4 of the ECRA and Article 8 of the Framework Directive.

The MCA will however continue to monitor market developments and, where appropriate, shall issue directions to further fine-tune these remedies to the needs of the market.

As stated elsewhere in this consultation document, the MCA concluded that unbundled copper and fibre access services are included in the definition of Market 4 and that GO holds SMP in this market. Therefore, in order to pass the benefits of competition to the consumers, it is essential that competing operators can gain access to GO's infrastructure. This implies that remedies should be imposed in order to provide ISPs with sufficient access to inputs, so that they may start offering services over the existing infrastructure and/or over fibre infrastructure in the future.

Thus, the MCA believes that, due to its dominant position in Market 4, GO would not have an incentive to provide access to its wholesale inputs unless it was obliged to do so. This competition problem justifies the MCA's intervention in Market 4.

The MCA therefore proposes to maintain the existing obligations of transparency, non-discrimination, price control, cost accounting and accounting separation on the market for unbundled local loops. Furthermore, the MCA proposes to differentiate those remedies that are applicable to unbundled fibre access from those applicable to unbundled copper access loop as regards access, price control and cost accounting orientation. This is discussed in turn below.

Access

► *Continuation of the exiting remedies*

In accordance with Article 15 of the ECNSR, GO shall:

- continue to offer wholesale unbundled access to the local loop (including shared access) and associated facilities, and accommodate reasonable requests for access to service variants
- give OAOs access to specified network elements and/or associated facilities, where such access is required for the purpose of the provision of wholesale unbundled access to the local loop
- provide co-location or other forms of facility and site sharing, where applicable for the purpose of unbundled local loop services.

GO is therefore required to negotiate in good faith with undertakings requesting these access services.

The MCA believes that GO should provide information relevant to the access obligation to ISPs. As a consequence, GO shall provide access to technical interfaces, protocols or other key technologies that are necessary for the interoperability of services, and the operational support systems (OSS) or similar software that is necessary to ensure fair competition in the provision of unbundled local loop services.

In particular, GO entering into service level agreements (SLAs) with alternative operators is considered to be essential with respect to the provision of access to the local loop, as it provides alternative operators with certainty as to the supply and repair of the wholesale input and hence allows them to compete in the downstream market.

GO must provide all the aforementioned access-related remedies in a fair, timely and reasonable fashion. The obligations of non-discrimination and transparency are imperative if alternative operators are to effectively compete with GO. In order for the access obligation to be fully effective, the MCA deems that the provision of access by GO to these wholesale products also ought to be cost-oriented and accompanied by accounting separation and non-discrimination obligations.

According to Article 12 of the Access Directive, the continuation of the existing access remedies for access to the local loop and to the sub-loop, including related facilities (duct access, dark fibre or Ethernet capacity for sub-loop unbundling backhaul) and co-location, is justified and proportionate given that:

- GO is the sole provider of wholesale unbundled access and there is still no competition in this market.
- GO's copper network covers the entire national territory and is not technically and economically replicable by alternative operators.
- GO has no reason to grant access to its network in the absence of a specific obligation to do so.
- Wholesale unbundled access enables alternative operators to compete in the wholesale broadband access market.
- Unbundled access to the local loop and sub-loop encourages the deployment of alternative infrastructures and the development of different technologies since ISPs have the possibility to control technology end to end.
- Although to date no alternative operator in Malta has deployed an LLU-based access product, extensive discussions took place between GO and an alternative operator. These discussions may begin again, either with the same alternative

operator or with another one. As long as GO maintains its exchanges, it is important to continue to ensure access to this part of the network.

- In its NGA Recommendation, the EU Commission recommends imposing an obligation of unbundled access to the copper sub-loop[58]. The MCA shares the view that access to the sub-loop remains a critical remedy for this market especially at this time when GO has deployed fibre up to the cabinet. The Commission also considers that the copper sub-loop unbundling remedy should be supplemented by backhaul measures and by ancillary remedies ensuring its effectiveness and viability, such as non-discrimination access to facilities for co-location. Further, in its letter of 2 February 2011 to the MCA, the Commission welcomed the MCA's migration rules, "*which in line with the NGA Recommendation, put in place a transparent framework enabling OAOs to receive in good time all the necessary information on the SMP operator's network upgrades and exchange decommissioning, thus providing them with the means to adjust their own networks accordingly*".[59]

- No less-burdensome remedy would meet the MCA's objectives.

► *Imposition of a new remedy on fibre*

The MCA proposes to impose an unbundling obligation on fibre if and when FTTH/FTTB is deployed:

- if a point-to-point (PTP) architecture is deployed, the access obligation would be at the optical distribution frame (ODF)
- if a passive optical network (PON) architecture is deployed, an obligation of virtual unbundling would then be imposed.

In accordance with the Commission's NGA Recommendation,[60] the MCA imposes the principle of an unbundled access to fibre in order to ensure that new entrants have unbundled access to fibre including backhaul facilities. At this stage, considering the early stage of market development on this topic, the MCA proposes to impose an obligation of wholesale access to fibre only in the case that GO further deploys NGA using FTTH technology. Once GO has defined its strategic and technology choices for the roll-out of its fibre network, the MCA shall subsequently adopt rules regarding the technical aspects of the unbundling solution.

Such an obligation is necessary to provide ISPs with some predictability on how the regulatory environment will evolve in case of those possible evolutions of the market.

58 *Ibid.* § 29.

59 Case MT/2011/1263.

60 Commission recommendation of 20 September 2010 on regulated access to Next Generation Access Networks (NGA), (2010/572/EU), §22-23. Available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:251:0035:0048:EN:PDF.

Furthermore, both the Commission and the ERG recommend the implementation of an unbundled access obligation applicable to fibre networks. In its opinion on regulatory principles of NGA, the ERG considers that "*[w]here market analysis, applying the substitutability test, justifies the inclusion of fibre loops in Market 11 [now Market 4] and SMP has been established, offering unbundled access to the optical local loop at a reasonable number of access points could be mandated*".[61] The Commission also considers that unbundled access to the fibre loop shall be mandated on Market 4 irrespective of the network architecture and technology implemented by the SMP operator.[62]

Further, the ERG considers necessary to mandate different obligations depending on the options implemented by the SMP operator to unbundle fibre:

- "*A point-to-point FTTH could be unbundled considering there is one single optical fibre dedicated per end-user between the ODF (where the active equipment is located) and the end-user premises. This would result in that case in the same kind of system which is in place today on the copper local loop.*

- *A point-to-multipoint FTTH solution, like PON (which implies passive traffic sharing between several end user) could not be easily unbundled as such between the ODF and the end-user premises. […] So that new entrants might have access not at the level of the last splitter but at the level of the ODF, considering they don't roll-out their own fibres to the last passive optical splitters, it would be necessary to evaluate solutions enabling them to bring their traffic from the splitters to the ODF. This could, among other remedies, be granted by imposing the SMP operator to provide, as ancillary services, both splitters and dark fibres on the feeder segment. If such remedies are mandated, the SMP operator would have to deploy extra dark fibres on the feeder segment and extra splitters, and an extra distribution frame at the level of the last splitter.*

- *However, this solution implies that all new entrants asking for access at the level of the ODF need to use the same PON technology as the SMP parties and commit to roll-out their own networks. To achieve this, the NRA may need to intervene in the SMP-parties' network design of a PON (e.g. number of splitters and fibres in the feeder segment). This requires a careful assessment of the proportionality of such an intervention, balancing on the one side the commercial freedom of the SMP party and on the other hand the objectives of regulation, mainly to promote and maintain competition. It may be justified on the grounds that otherwise the SMP party would foreclose the market and there is a danger of re-monopolization.*

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61 ERG Opinion on Regulatory Principles of NGA, ERG(07)16rev2., point 4.4.2.1. Available at http://erg.eu.int/doc/publications/erg07_16rev2_opinion_on_nga.pdf.

62 Commission recommendation of 20 September 2010 on regulated access to Next Generation Access Networks (NGA), (2010/572/EU), §22–23. Available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:251:0035:0048:EN:PDF.

- *Considering FTTB, imposing unbundling would imply for the SMP operator to grant access to competitors at the "basement" of each building. […] Availability of ancillary services such a dark fibre would thus have to be mandated also. Collocation at the basement would also need to be available*".[63]

The implementation of an unbundled access obligation applicable to fibre networks is based on Article 15 of the ECNSR, and is linked to the objectives of promotion of competition and technological neutrality set out in the European Framework. Article 15 (4) of the ECNSR requires that the MCA take into the following factors:

- the technical and economic viability of using or installing competing facilities, in the light of the level of market development, taking into account the nature and type of interconnection and access involved, including the availability of other upstream access products such as access to ducts
- the feasibility of providing the access proposed, in relation to the capacity available
- the initial investment by the facility owner, taking account of any public investment made and the risks involved in making the investment
- the need to safeguard competition in the long term with particular attention to economically efficient infrastructure-based competition
- where appropriate, any relevant intellectual property rights
- the provision of pan-European services.

The MCA took into account these factors and considers that the imposition of an unbundled access obligation applicable to fibre networks is justified and proportionate given that:

- The principle of this new remedy is imposed within the framework of this market review so that GO takes into account, if and when deploying its fibre network, the need for ISPs to access fibre without replicating GO's network.

- Technical details of the implementation of this remedy will be further examined by the MCA together with GO and the ISPs.

- The technical details of the implementation of this remedy will be implemented over time taking into account GO's technical and strategic choices in order not to impact GO's deployment plans in a disproportionate manner.

- The MCA will give preference to commercial negotiated fibre access between GO and alternative operators, and will intervene with more detailed access rules only if commercial negotiations do not yield satisfactory results.

- No less-burdensome remedy would meet the MCA's objectives.

63 ERG Opinion on Regulatory Principles of NGA, ERG(07)16rev2., point 4.4.2.1. Available at http://erg.eu.int/doc/publications/erg07_16rev2_opinion_on_nga.pdf.

Non-discrimination

The remedy of non-discrimination in the provision of access and interconnection is essential to address competition problems resulting from vertical foreclosure, particularly in the context of NGA deployments.

In accordance with Regulation 13 of the ECNSR and Article 10 of the Access Directive, GO, as a vertically integrated provider, is obliged to:

- apply equivalent conditions in equivalent circumstances to other undertakings providing equivalent services, and
- provide services and information to others under the same conditions (including timescales) and of the same quality as it provides for its own services, or those of its subsidiaries or partners.

The MCA believes that the obligation of non-discrimination is essential to promote the take-up of wholesale products by alternative operators during the time frame of this review. GO also makes use of wholesale access to the local loop services provided internally to be able to offer downstream services.

In light of this, the MCA considers it necessary to impose a non-discrimination obligation on GO to offer ISPs access to its wholesale product under the same conditions as it provides it to its downstream retail provider. Further, the MCA believes that this obligation of non-discrimination should include price parameters as well as non-price parameters, such as the withholding of information, delaying tactics, undue requirements, low or discriminatory quality, strategic design of products, and discriminatory use of information, which would put competing providers, and in turn consumers, at a disadvantage.

In order to ensure the compliance of GO with this obligation of non-discrimination, the MCA considers it necessary to impose obligations of transparency and accounting separation.

Transparency

► *Continuation of existing remedies*

Regulation 12(2) of the ECNSR sets out that where an operator with SMP has obligations of non-discrimination, the MCA may require it to publish a RUO. This RUO shall ensure that undertakings are not required to pay for facilities which are not necessary for the services requested. Further, it shall give a description of the relevant offerings broken down into components according to market needs, and the associated terms and conditions including prices. In such instances, the MCA may impose changes to the RUO to take into account the new obligations imposed on the

operator with SMP. The MCA may also specify the precise information to be made available in the RUO, the level of detail required and the manner of publication.

The obligation of transparency, as set out in Regulation 12 of the ECNSR, is intended to ensure the provision of sufficient information and clear processes required for access to the mandated products by the operator with SMP.

GO publishes the prices for wholesale access to its unbundled local loops and the associated terms and conditions in its RUO, which demonstrates GO's compliance with the obligation of transparency. Furthermore, GO is obliged, whenever necessary, to update its RUO to reflect any changes in the obligations imposed upon it. This RUO must be sufficiently detailed, including pricing information and the associated terms and conditions, to ensure that operators are not required to pay for facilities which are not necessary for the services requested. The MCA reserves the right to specify the level of detail to be published with respect to such information from time to time.

GO is obliged to comply with its obligation to provide the minimum list of items to be included in a reference offer as set out in the Third Schedule to the ECNSR.

GO is not required to publish in the RUO the detailed conditions for access to ducts and dark fibre serving as backhaul to sub-loop-unbundling. These technical and pricing details are subject to commercial negotiations and the MCA may intervene on a case-by-case basis in the event of failed negotiations.

Furthermore, in order to better overcome the competition problems discussed above, the MCA is of the opinion that GO should continue to provide and publish appropriate descriptions, order forms and processes for unbundling services, the details of which are to be determined on a case-by-case basis. The MCA may request other information from time to time.

GO's RUO shall be compliant with the MCA's decision of June 2010, in particular as regards the provision of information related to its main distribution frames (MDFs) and co-location facilities, SLAs, timelines and determination of charges not established *a priori*.

The principle of transparency based on Article 9 of the Access Directive permits ISPs to have some visibility of the economic conditions and technical architecture of GO's wholesale offer. It also allows the MCA to ensure that other obligations, and in particular the obligations of non-discrimination and price control, are met. The MCA also highlights that GO's RUO was the basis of the discussions held between GO and Vodafone regarding the actual use of this offer by Vodafone.

► *NGA migration*

GO's RUO shall also be compliant with the MCA's decision of November 2011 that sets out the rules that regulate GO's planned migration to an FTTC network, in particular

the obligation by GO to inform ISPs in advance of any exchange decommissioning. This remedy should be in line with the current migration rules and any future decision as published by the MCA.

Furthermore, in its opinion on regulatory principles of NGA, the ERG also underlined the importance of transparency measures as regards the NGA migration in order to design appropriate remedies adapted to the NGA environment.

Regarding the fibre unbundling obligation, the MCA considers that a reference offer is not required at present but should be made available only when FTTH/B starts to be physically available. This is in line with the Commission's Recommendation that "*the existing LLU reference offer should be complemented as soon as possible to include unbundled access to the fibre loop*."[64] To this end, GO is therefore obliged to continue to provide detailed and periodic updates on its network upgrade in particular on any planned rollout of FTTH/B.

Accounting separation and price control

The MCA has found GO to have SMP in the market for wholesale access to the local loop. GO's dominant position in this market is not envisaged to change within the time frame of this review due to the considerably high barriers to entry in this market. In light of the foregoing, the MCA believes that GO may squeeze the margins of its competitors to foreclose competition in the downstream market unless appropriate price control remedies are imposed on GO.

Regulation 16 of the ECNSR and Article 13 of the Access Directive authorise the imposition on the SMP operator of obligations relating to cost recovery and price controls, including obligations of cost orientation and cost accounting for the provision of specific types of interconnection and/or access.

Such intervention is justified in order to support competition, whilst at the same time complementing the obligations of non-discrimination and transparency at a wholesale level.

► *Price control*

The MCA shall ensure that any cost-recovery mechanism or pricing methodology that it mandates serves to promote efficiency and sustainable competition, as well as maximising consumer benefits.

As provided for by the preamble to the Better Regulation Directive, "*when imposing remedies to control prices, national regulatory authorities should seek to allow a fair return for the investor on a particular new investment project. In particular, there*

64 *Ibid.*, §24.

may be risks associated with investment projects specific to new access networks which support products for which demand is uncertain at the time the investment is made."[65]

In light of the risk that GO may abuse its dominant position by imposing excessive prices on the wholesale market, the MCA is of the opinion that an obligation of cost orientation on GO would ensure fair and efficient access to GO's network and services, thus reducing such possible abuses of dominance.

In implementing this measure, the MCA will pay special attention to those costs which are shared by several products, as well as ensuring that GO's prices reflect only those costs that are efficiently incurred in the provision of the service.

As a consequence, the MCA imposes continuation of the cost orientation remedy applicable to the unbundled copper access, using the same costing methodology as currently applied. This cost orientation obligation also applies to the duct access and dark fibre products used for backhaul to sub-loop unbundling. However, as noted above, GO is not obliged to publish in its RUO the prices of the duct access and dark fibre products.

Going forward the MCA expects to finalise its new LRIC model for both the core and access network of a fixed operator. Amongst other things, this model is likely to be used to set local loop unbundling tariffs.

The MCA also imposes that the price of access to the unbundled fibre loop should be cost-oriented, and adheres to the principles set forth in the Commission's NGA Recommendation[66].

In accordance with Regulation 16 (1) §2 of the ECSNR, in order to encourage investments by the SMP operator, including in next-generation networks (NGNs), the MCA shall, when considering the imposition of cost-accounting obligations, take into account the investment made by the operator in electronic communications networks or services or associated facilities which the MCA considers relevant, and allow the operator a reasonable rate of return on adequate capital employed.

► *Cost accounting*

The MCA believes that, in order to effectively promote competition and curb possible abuse of dominance in the wholesale markets under review the imposition of a cost accounting system will be necessary to support cost orientation. It is therefore necessary to impose such obligation as a further remedy on GO.

65 Directive 2009/140/EC, preamble (57).

66 Commission recommendation of 20 September 2010 on regulated access to Next Generation Access Networks (NGA), (2010/572/EU), §25

Such cost accounting system will provide the MCA with detailed information regarding GO's product costs and ensure that fair, objective and transparent methodologies are followed by the operator in allocating costs to the identified regulated products.

GO is currently already obliged to support such a system by virtue of MCA decisions[67] which establish that SMP operators should implement cost-based accounting systems using a fully allocated cost methodology using a historic cost base. These decisions are in force until such time as the MCA issues new guidelines.

The MCA considers that a cost accounting obligation may apply to fibre in the future, but only when there is more visibility on the choice of fibre architecture. However, no cost accounting obligation is imposed to fibre in the present decision.

Accounting separation

The remedy of accounting separation, based on article 11 of the Access Directive and Regulation 14 of the ECNSR, is essential to ensure that the undertaking with SMP is not price discriminating between its retail arm and its competitors when providing access at a wholesale level. By evidencing the wholesale and internal transfer prices of the products and services of the undertaking with SMP, accounting separation also supports the obligation of transparency discussed above. The obligation of accounting separation is also important in the disclosure of possible market failures such as cross-subsidisation and the application of margin squeeze by an undertaking with SMP.

In view of the above and of the fact that the MCA is herein maintaining the obligations of non-discrimination and transparency on GO, the MCA has concluded that the imposition of an accounting separation obligation on GO is indispensable in order to support and render effective the other remedies, and in particular the non-discrimination remedy.

Currently GO is subject to the accounting separation obligation described in the MCA decision on Accounting Separation[68]. This level of obligation shall be maintained until further consultation is deemed necessary.

5.3.4 Conclusion on the selection of remedies to be imposed on the market for unbundled access

67 Implementation of Cost Based Accounting Systems for the Telecommunications Sector – Report on Consultation and Decision – July 2002; Notice n°173 appearing in Government Gazette on 20th February 2004

68 Accounting Separation and Publication of Financial Information by Undertakings having Significant Market Power in the Electronic Communications Sector - – Report on Consultation and Decision of July 2009

The MCA proposes to impose the following remedies:

- **Access**
  - continuation of the existing access remedies for access to the local loop and to the sub-loop, including related facilities (duct access, dark fibre or Ethernet capacity for sub-loop unbundling backhaul) and co-location.
  - *new remedy on fibre*: obligation to provide fibre unbundling if and when FTTH/FTTB is deployed.
- **Non-discrimination**
  - application of equivalent conditions in equivalent circumstances to other undertakings providing equivalent services; and
  - provision of services and information to others under the same conditions (including timescales) and of the same quality as it provides for its own services, or those of its subsidiaries or partners.
- **Transparency**
  - continuation of the existing obligation to publish (and update where necessary) reference offers related to the various wholesale unbundled access to the local loop services.
  - compliance with the MCA November 2011 Decision setting forth migration rules regulating GO's planned transition to a Fibre-to-the-Cabinet (FTTC) network.
- **Price control**
  - continuation of the existing cost-orientation remedy applicable to the unbundled copper access, using the same costing methodology as currently applied.
  - *new remedy on fibre*: price control of the access of the unbundled fibre loop based on cost orientation.
- **Cost accounting***:* continuation of the existing obligation applicable to the unbundled copper access to implement cost-based accounting systems.
- **Accounting separation***:* continuation of the existing obligation applicable to the unbundled copper access

Q5. Do you agree with the above preliminary conclusions regarding the regulatory approach to the wholesale market for unbundled access?

6. Review of the wholesale broadband market

This section presents the review of the market for wholesale broadband market. This section includes a delineation of the wholesale market, analyses this market to identify potential players with SMP and concludes with the regulations and remedies to be imposed on this market.

It is structured as follows:

- Section 6.1 proceeds with the market definition of the market, in terms of the relevant product market and geographical scope of the market.
- Section 6.2 analyses the key factors affecting competition on, and the development of, this market. This section also considers whether any player can be deemed to enjoy SMP either individually or jointly.
- Section 6.3 concludes on the regulatory approach to this market.

6.1 Definition of the wholesale broadband market

6.1.1 Main players and offers in the market

In Malta, there are currently a small number of ISPs which are making use of wholesale broadband access offers.

► *GO's wholesale broadband access offer*

Despite having no regulatory obligation to do so, as of early 2012 GO was still providing the wholesale broadband offer it was required to offer until 2008. This offer has since then remained largely the same.

This offer essentially encompasses several types of service, depending on whether it:

- includes or excludes the capacity between GO's Broadband Access Server (BAS) and the ISP
- includes or excludes international Internet bandwidth
- involves a routed (using PPPoA protocol) or bridged (using IPoA protocol) connection mode.

ISPs are therefore able to create a retail offer based on the most appropriate wholesale offer, depending on their capabilities/expertise and level of investment (for example, the service which includes international Internet bandwidth will typically require less up-front investment from the ISP).

► *Melita's wholesale broadband access offer to MITA*

At the time of the last round of the MCA's review of Market 5[69], Melita provided wholesale third-party broadband access to at least one client, the Malta Information Technology Agency (MITA). This was still the case in early 2012.

MITA is a Government agency specialized in Information and Communications Technology (ICT), with a mandate spanning from ICT policy to ICT programmes and initiatives in Malta. With regard to broadband, MITA acts as a state-controlled ISP for government end users. It serves essentially non-residential end users (e.g. schools, hospitals and the university) but also residential end users (e.g. selected government employees). The service provided by MITA allows end users to access MITA Intranet and the public Internet, via (*inter alia)* cable modem. As an alternative, MITA also provides a similar service over the DSL infrastructure (on the basis of GO's wholesale inputs).

The agreement between MITA and Melita is a commercial offer, several terms of which are confidential. However with regard to technical issues, it can be revealed that:

- the IP addresses assigned to end users are allocated from MITA's address range via MITA's own IP address management (DHCP) servers
- access to the public Internet is via MITA's international IP transit links
- data traffic to and from MITA end users is kept separate from the rest of the users on Melita's network via a specific Virtual Private Network (VPN)
- MITA and Melita have invested in dedicated network resources needed to establish the service (e.g. routers, firewall, interconnection of the two networks over dedicated fibre).

While this offer exhibits many functional and technical characteristics that are similar to those of DSL wholesale broadband, the MCA has analysed whether there is sufficient substitutability between this offer and GO's wholesale broadband access offer in terms of the definition of the relevant product market.

6.1.2 Definition of the relevant product market

As underlined by the Commission, "*the relevant product/service market comprises all those products or services that are sufficiently interchangeable or substitutable, not only in terms of their objective characteristics, by virtue of which they are particularly suitable for satisfying the constant needs of consumers, their prices or their intended*

69 "Wholesale Broadband Access Market, Identification and Analysis of Markets, Determination of Market Power and Setting of Remedies" released by MCA in 2008.

use, but also in terms of the conditions of competition and/or the structure of supply and demand on the market in question"[70].

The definition of the relevant product market is based on an analysis of demand- and supply-side substitutability between different products and services which could potentially form part of the market under investigation. This section provides an analysis of the degree of substitutability between available broadband wholesale access services in Malta, taking a forward-looking approach with respect to possible developments in the market under review.

Given this, and also on the basis of the analysis outlined at the retail level, it follows that the definition of the relevant product market involves examining whether:

- wholesale broadband access services available over DSL and cable are part of the same market
- wholesale broadband access services available over DSL and WiMAX are part of the same market
- wholesale broadband access over DSL and wholesale broadband access over fibre are part of the same market
- self-supply and wholesale broadband access are part of the same market.

Wholesale broadband access over DSL and wholesale broadband access over cable

This section analyses the degree of substitutability between these services provided over the copper network and other available services in Malta. A forward-looking approach is taken with respect to possible developments in the market under review.

► *Demand-side substitutability*

Firstly, with regard to the technical feasibility of such an offer, it should be highlighted that the current cable wholesale agreement between MITA and Melita has several characteristics which are similar to a wholesale broadband access offer:

- MITA has control over the end-user connection: it provides its own IP address (within MITA's address range) and a possibly differentiated service (particularly in terms of international connectivity, but also in relation to filtering and other advanced broadband features).

- the traffic is handed from Melita to MITA at the IP or MPLS level (layer 3), thus enabling smooth control of the quality of service delivered to end users.

If Melita were to try and provide all ISPs with the same offer, ISPs might potentially require amendments such as additional speeds, a slightly different architecture or

70 Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services (2002/C165/03), §44.

automated IT provisioning and billing systems. However, from a technical perspective it can be concluded that the existence of such an agreement between MITA and Melita, implemented in practice, demonstrates the feasibility of a wholesale broadband access over cable.

In addition, several other players (such as Vodafone) have previously expressed interest in gaining wholesale access to the cable network; however, these requests were refused by Melita but not because of technical impossibilities.

Secondly, wholesale access products over the cable network and over the DSL network are equivalent in terms of:

- **Functionality** – Despite the shared nature of the HFC access network, the MCA is of the opinion that, from a demand perspective, there is little difference between wholesale services over the cable network and wholesale services over DSL: both are the wholesale input required to build substitutable retail products, and both would require similar additional components (from an ISP interested in turning these wholesale inputs into a retail product). In particular, this is why MITA makes similar use of both the wholesale DSL and wholesale cable broadband offers.

- **Coverage** – Both the DSL and cable broadband networks provide ubiquitous coverage of the national territory.

- **Interconnection** – The core network for DSL and cable platforms is largely similar. Consequently, the ISP network connection that is at the handover point of a wholesale broadband access product is similar from one wholesale broadband product to the other, because this is independent of the access network.

- **Prices** – The cost burden for a cable network to provide wholesale access to third parties is considered to be reasonable, especially in the light of existing arrangements with third parties such as MITA. In any case, a significant proportion of the wholesale costs incurred by Melita to provide such services has already been incurred (in the same way that GO has also already incurred the investment costs in its wholesale access offer).

Finally, in order to assess the demand-side substitutability between cable and DSL wholesale access services, the MCA considered whether ISPs have a suitable alternative available to them in the short term without incurring excessive additional costs, if the DSL incumbent applies a small but significant hypothetical price increase to its wholesale DSL product. At present, if the DSL provider increases the price of the wholesale broadband access product, client ISPs do not have an alternative substitute. However, if the cable operator were to provide wholesale broadband access to third parties, ISPs would be able to obtain an alternative wholesale access product.

As a consequence, if Melita decided to provide wholesale broadband access via cable (in response to a small but significant hypothetical increase in DSL wholesale access prices), it would be possible for an existing ISP to shift its existing subscriber base to cable in the short term without incurring excessive costs (other than the costs of an MPLS router and implementing a few additional security and traffic management rules in the access and core network). It would also be possible for a new ISP entering the market to decide to use only wholesale broadband access via cable – because cable broadband is available nationwide. This makes Malta unique: in most European countries, there is no single cable operator that covers the whole national territory, and so it would not be possible for an ISP to switch from the copper-based network to a single cable network for the provision of wholesale broadband access services.

The same would apply if the Maltese cable provider increased the price of its wholesale broadband access product. In this case, the DSL provider would be in a position to offer a viable alternative to the hypothetical cable client ISP.

► *Supply-side substitutability*

If the DSL provider increases the price of wholesale broadband access, the cable operator will not start providing wholesale broadband access over DSL (and *vice versa*). The high barriers to entry due to the high investment required to deploy a new fixed network that provides extensive coverage make such an entry an impractical alternative within the timeframe covered by this review.

► *Preliminary conclusion*

On the basis of this analysis, the MCA considers that wholesale broadband access over DSL and cable networks forms part of the same relevant product market. This conclusion is in line with the reasoning and conclusions reached by several other countries, such as Germany, Hungary, the Netherlands, Portugal and the UK.

The MCA also notes that the EU Commission has already accepted this market definition in the previous notification of this market review, in 2008.

Wholesale broadband access over DSL and wholesale broadband access over WiMAX

In its previous market analysis, the MCA believed that wholesale access on WiMAX was an option which would be available in the near future, especially since Vodafone has an access obligation as part of its licence conditions. However, no ISP has ever requested Vodafone to offer a wholesale access offer, and Vodafone has now ceased offering WiMAX itself to new retail clients. As a result, no wholesale broadband offer over WiMAX is likely to exist in Malta.

Given the inexistence of a WiMAX wholesale offer, the ability for an ISP to switch to a wholesale WiMAX offer in the short term is questionable. The MCA is therefore of the view that the wholesale broadband market currently does not include WiMAX.

The MCA also highlights that given the low market share of WiMAX on the retail market and the declining trend (as a result of Vodafone ceasing to offer the service to new customers), WiMAX is unlikely to represent a constraint on the wholesale market, which confirms WiMAX should not fall in the same relevant market as other still-offered wholesale broadband products.

Wholesale broadband access over DSL and wholesale broadband access over fibre

In the NGA Recommendation[71], the Commission highlights that the review of the broadband markets (Market 4 and Market 5) should take account of NGA networks. In addition, as highlighted by BEREC[72], most Member States (17 NRAs) have decided to include fibre-based services in the relevant product market for Market 5.

The MCA also notes that GO has started rolling out FTTC and may in the future wish to deploy FTTH.

On the basis of the Commission's recommendations and given the latest market developments, the MCA has therefore examined the substitutability between broadband access over DSL and broadband access over fibre to determine whether these two services fall within the same relevant market.

► *Demand-side substitutability*

Wholesale broadband access over DSL refers to the situation where the incumbent installs a high-speed access link to the customer premises (e.g. by installing its preferred ADSL equipment and configuration in its local access network) and then makes this access link available to third parties, to enable them to provide high-speed services to customers. GO already provides wholesale broadband access services over its copper network. When GO deploys its fibre network as a replacement for its copper network, the wholesale broadband access service it provides is likely to be very similar to the existing copper-based wholesale broadband access service, with higher speeds. Therefore, in the event of a SSNIP of the copper-based wholesale broadband access service, an alternative operator could switch to the wholesale broadband access service provided over the fibre network (but not *vice versa*).

The MCA therefore considers that where the two products co-exist, there will be one-way substitutability: in case of a SSNIP of copper-based wholesale broadband access, a competitive operator will seek fibre access, but the converse is probably not true.

71 Commission Recommendation of 20 September 2010 on regulated access to NGA (2010/572/EU), article 5.

72 Draft BEREC report on Co-investment and SMP in NGA networks, BoR(11)69, 8 December 2011.

► *Supply-side substitutability*

There is no commercial wholesale broadband access offer over fibre in Malta.

In case of SSNIP of the wholesale broadband access services over the fibre network, an operator supplying wholesale broadband access over the copper network would still not seek to offer broadband access to fibre because of the very large investment required to deploy a fibre network.

Given that wholesale broadband access over fibre has sufficiently similar functional characteristics to wholesale broadband access over copper, in the event of a SSNIP of copper based wholesale broadband access service, an ISP using unbundled fibre access would be disposed to offer a fibre-based wholesale broadband access product substitutable to wholesale broadband access over DSL (i.e. by offering speeds comparable to wholesale broadband access over copper).

► *Preliminary conclusion*

The MCA considers that wholesale broadband access over DSL and wholesale broadband access over fibre fall within the same relevant product market. This is in line with the most recent practice in other EU countries, since publication of the Commission's NGA Recommendation.

Wholesale broadband access and self-supply

It is a common practice for the network operator of a broadband infrastructure to supply services internally to its retail arm (which may be a wholly-owned subsidiary ISP of the same entity). The downstream ISP can naturally forge very close links with the upstream provider and can tailor the end-user service offerings as it wishes, since in effect it has a significant degree of upstream control over the service parameters.

In Malta, both cable and DSL providers offer self-supply broadband access to their downstream ISPs. GO provides its own downstream ISP with a self-supplied product, while it offers ISPs a wholesale third-party product. This gives the vertically-integrated ISP a significant ability to differentiate its retail offers. The cable operator does not provide third-party access to its network and, in fact, cable broadband is sold almost exclusively on a "self-supply" basis (with the exception of MITA).

The Explanatory Memorandum to the 2003 Recommendation on relevant markets outlines that "In cases where there is likely demand substitution, i.e. where wholesale customers are interested in procuring from alternative operators, it may be justified to take the self-supply concerned into consideration for the sake of market delineation. However, this is not justified if alternative operators face capacity constraints, or their networks lack the ubiquity expected by access seekers, and/or if alternative providers have difficulty in entering the merchant market readily." This is

further developed by Cave, Stumpf & Valletti: "Only in the case where a rival firm has reached a network roll-out and geographical coverage comparable with the existing operator(s), where the necessary spare capacity is available, wholesale billing and account management systems exist, and where switching costs are low, supply substitution appears to impose a strong enough pricing constraint on the existing wholesale products. In this case, the rival firm's self-provided inputs could be included in the same relevant wholesale market, together with the incumbent's wholesale offerings."[73]

Considering the application of these considerations to the Maltese situation:

- *network roll-out and geographical coverage* – these are basically identical for cable and DSL in Malta
- *availability of spare capacity* – this is clearly not an issue in Malta, due to the ability for one party to respond immediately to increased demand or new services offered by the other players
- *existence of wholesale billing and account management systems* – this is not a problem for GO or Melita, since these systems already exist (in the case of GO) or can easily be implemented (in the case of Melita)
- *low switching costs* – switching costs are almost negligible at the retail level and contained at the wholesale level[74].

As demonstrated above, all of the conditions required for inclusion of cable self-supply in the relevant market product are fulfilled. The MCA therefore considers that the proposed market definition reflects Malta's particular national circumstances, whilst respecting the principles laid out in the Commission's Recommendation on relevant markets.

► *Preliminary conclusion*

Given the analysis above, the MCA concludes that self-supply cable and DSL broadband access services and wholesale broadband access products provided over all existing broadband networks are to be considered within the same relevant wholesale market. This conclusion (which is similar to the one reached by the MCA during the previous market review) was not commented on by the Commission. This conclusion is also in line with conclusions reached by several other NRAs (e.g. in Portugal and the UK).

In any case, the MCA has also explored whether the exclusion of self-supply from the market definition would lead to a different conclusion.

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73 Review of certain markets included in the Commission's Recommendation on Relevant Markets subject to *ex ante* Regulation , An independent report by Martin Cave, Ulrich Stumpf, Tommaso Valletti, July 2006, p.17

74 The MCA acknowledges the operational complexity involved when an ISP switches from one infrastructure to the other, particularly as regards migration of the user base. However, the possibility to "make before break" still proves that there is a possibility for minimal end-user impact, provided the migration plan is properly executed.

6.1.3 Relevant geographical market

As underlined by the Commission in the guidelines on market analysis (the "EU Guidelines")[75], a relevant geographical market comprises the area in which the undertakings concerned are involved in the supply and demand of products and/or services, in relation to which the conditions of competition are sufficiently homogeneous and which can be distinguished from neighbouring areas because the conditions of competition are appreciably different to those areas.

According to the EU Guidelines, in the electronic communications sector, the definition of the geographical scope of the relevant market is generally determined with reference to the area covered by a network and to the existence of legal and other regulatory instruments[76].

Locally, both DSL and cable broadband infrastructures have been extended to cover almost the entire national territory, and services are sold in exactly the same way regardless of location.

Based on the abovementioned characterisation and market conditions, the MCA takes the view that the relevant geographical market for the relevant product and service markets under consideration is the national territory of Malta.

6.1.4 Conclusion on the definition of the wholesale broadband market

According to the analysis carried out and evidence available to the MCA, the MCA concludes that the wholesale broadband market has a national geographical scope and:

- includes wholesale broadband access over DSL
- includes wholesale broadband access over cable
- excludes wholesale broadband access over WiMAX
- includes wholesale broadband access over fibre
- includes DSL and cable self-supply.

Q6. Do you agree with the above preliminary conclusions regarding the market definition of the wholesale broadband access market?

75 Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services (2002/C 165/03), paragraph 56.

76 Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services (2002/C 165/03), paragraph 59.

6.2 Analysis of the wholesale broadband market and determination of SMP

6.2.1 Major structuring factors in the market

Market size, market shares and concentration

At the end of 2010 there were around 900 wholesale broadband access lines in Malta in absolute terms, of which:

- around 600 were wholesale broadband access lines over DSL (down from around 10 000 lines in 2007)
- around 300 were wholesale broadband access over cable purchased by MITA[77].

Thus, excluding self-supply, GO has a 67% market share and Melita has 33%.

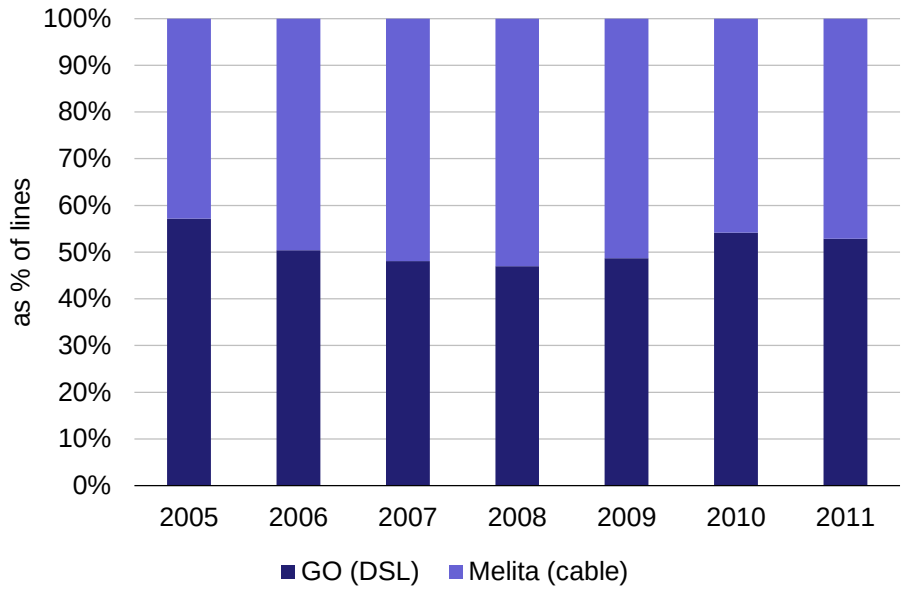
It should also be noted that because no ISP has taken up wholesale unbundled access lines, no player other than Melita and GO is currently able to enter the wholesale broadband market. This is a different situation from that in several other European countries, where ISPs may enter (or indeed have entered) the wholesale broadband access market on the basis of wholesale unbundled access[78].

When taking into account self-supply, the wholesale broadband market includes all retail DSL and cable lines, i.e. 125 000 lines. GO and Melita each have around 50% of the market, with slight variations over time: GO's market share declined from 57% of the lines in 2005 to 47% in 2008, and then rose again to represent 53% of lines in 2011, as shown in Figure 6.1.

77 Source: interviews with MITA.

78 For instance, SFR and Completel in France as well as BT Wholesale in the UK provide wholesale broadband access on the basis of wholesale unbundled lines.

Figure 6.1: Evolution of wholesale broadband market shares (taking into account self-supply) [Source: MCA, EC, 2010]



Review of prices

Prices are no longer regulated and so are the subject of commercial negotiations (which means they are covered by business confidentiality). However, the MCA understands that prices have not evolved significantly during the last few years.

6.2.2 Other factors affecting competition in the market

This section reviews in turn a number of other factors that have an impact on competition in the wholesale market:

- economies of scale and scope
- sunk costs and infrastructure not easily replicable
- vertical and horizontal integration
- barriers to switching
- countervailing buyer power.

Economies of scale and scope

As discussed in Section 4.3.2, Melita and GO have both acquired significant economies of scale and scope over their respective networks, mainly as a result of their periods as monopoly operators prior to liberalisation, as well as the provision of additional services such as broadband over their networks.

Sunk costs and infrastructure not easily replicable

As discussed in Section 4.3.2, the costs of building a nationwide wired network are very significant. Given the support that GO and Melita received from the Government when building their networks, it would be extremely difficult for another player to replicate either of these infrastructures, as the legal environment and the economics of the roll-out would necessarily be much less favourable today.

Vertical and horizontal integration

As discussed in Section 4.3.2, Melita and GO are both vertically and horizontally integrated. The fact that GO and Melita are vertically integrated and are the two strongest players in the retail market reflects their strong position at a wholesale level. Consequently, it is clear that Melita and GO gain advantage from this vertical and horizontal integration, through a good alignment between the objectives of their retail-like (sales and marketing) and wholesale-like (network and operation) divisions, as well as through multiple service offerings and their ability to leverage from their presence in other markets.

Barriers to switching

As discussed in Section 6.1.2, for an ISP, the costs of switching between wholesale broadband access over DSL and wholesale broadband access over cable are relatively manageable. Indeed, the MCA believes that, from a technical perspective, there is likely to be little difference between the technical interface for a wholesale broadband product over cable and that for DSL. In both cases, an ISP would require network equipment such as routers and firewalls to collect the traffic at the operator network edge. However, there would be more operational complexity (and hence costs) associated with migration of the ISP's customer base from one platform to another. This would typically involve obtaining new CPE and migrating customers individually, which could incur significant operational costs. However, the possibility of activating the new line before cancelling the old one would most probably minimise end-user disruption and prevent revenue loss from the ISP's perspective. Furthermore, since in Malta the CPE is owned by the network operator rather than the ISP, the switching process is further facilitated for the ISP.

Countervailing buyer power

MITA can exert its countervailing buyer power on GO and Melita, because it has a captive user base that GO and Melita cannot address at the retail level. In practice, MITA uses this countervailing buyer power to obtain a better quality of service (faster escalation process, shorter time to repair or lead time, etc.) compared to the market average.

Because GO is currently the only operator that provides wholesale broadband access to third parties, other ISPs may not exert the same bargaining power as MITA.

Therefore, since there is only a single wholesale broadband access provider, ISPs (except MITA) cannot exert any credible countervailing buyer power on GO and/or Melita.

6.2.3 Prospective analysis

The key developments that may have an impact on the market within the timeframe of the current market review are:

- the evolution of GO's wholesale broadband access offer
- the Government's FTTH initiative.

These points are discussed below.

Evolution of GO's wholesale broadband access offer

GO's wholesale broadband access offer has not evolved in recent years. It is still available, but no longer appears to meet the expectations of the retail market (particularly in relation to speed). One of the reasons put forward by GO to explain why its wholesale broadband offer has not changed is that the offer is the matter of an ongoing lawsuit related to provision of this offer to one of the defunct ISPs.

Once the reasons put forward by GO to explain the lack of evolution of its wholesale broadband access offer have been resolved, the MCA will closely monitor whether this offer does evolve (particularly to take advantage of the higher speeds offered on GO's FTTC network).

The Government's FTTH initiative

The roll-out of new FTTH infrastructure may also create an opportunity for players to enter the wholesale broadband market on the basis of this new infrastructure.

The MCA will closely monitor how the wholesale broadband market evolves, and the new types of wholesale offer that become available following roll-out of the new FTTH infrastructure.

6.2.4 Conclusion of the market analysis

Under the EU Framework for the Electronic Communications Sector and Article 4(8) of the ECRA, SMP has been defined so that it is equivalent to the competition law concept of dominance. Article 14(2) of the Framework Directive states that "*[a]n 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." Therefore, in the relevant market, one or more undertakings may be designated as having SMP where that undertaking, or undertakings, enjoys a position of dominance.

This section reviews in turn whether any market player enjoys single dominance or joint dominance in the wholesale broadband market.

Single dominance

Throughout its analysis, the MCA has found that Melita and GO appear to have similar positions in the wholesale market. The MCA considers that, at a wholesale level, both Melita and GO:

- have highly similar market shares (including or excluding self-supply)
- enjoy a similar level of economies of scale and scope
- own an infrastructure that provides similar coverage and is not easily replicable (without involving very large sunk costs for an ISP)
- are vertically and horizontally integrated
- operate in a wholesale broadband market that has high barriers to entry, and
- do not face any credible countervailing buyer power.

Consequently, the MCA considers that at present there is no clear evidence to support a finding of single market dominance at the wholesale level. Indeed, neither GO nor Melita can act independently of the other operator (and ultimately of customers) in this wholesale market.

Nevertheless, the MCA is of the opinion that given the similar positions held by Melita and GO at the wholesale level, this market merits a further assessment for the potential finding of joint dominance.

Joint dominance

Regulation 8(3) of the ECNSR refers to a situation of dominance held by two or more undertakings in a particular relevant market. The second schedule of these Regulations describes situations under which the finding of joint dominance may be warranted, and states: "*Two or more undertakings can be found to be in a joint dominant position within the meaning of regulation 8 of these Regulations if, even in the absence of structural or other links between them, they operate in a market the structure of which is considered to be conducive to coordinated effects.*"

The Commission Guidelines define joint dominance, within the meaning of regulation 8(3) of the Regulations, as a situation where "*a dominant position may be held by two or more undertakings that are legally and economically independent of each other.*"

Within the meaning of this definition, two or more operators need not necessarily have any formal links between them in order to support a finding of joint dominance. What is required is that the undertakings under investigation are faced by "*substantially the same position vis-à-vis their customers and competitors*" within a particular market, such that these market conditions may be conducive to tacit collusion or co-ordinated effects.

► *Conditions prevailing in 2008 in the previous round of market analysis*

In its last review of the wholesale broadband market in 2008, the MCA conducted an extensive review of the conditions that would lead to joint dominance, which include:

- whether the characteristics of the market make it conducive to tacit co-ordination, and
- whether such form of co-ordination is sustainable.

Having taken into consideration an extensive number of factors, the MCA found that there were a number of criteria pointing towards the finding that Melita and GO had an incentive to co-ordinate in a potentially sustainable way:

- **High and similar market shares** – both Melita and GO had market shares almost equal in terms of lines or revenue in the wholesale broadband market

- **Highly concentrated market** – the Herfindahl-Hirschman Index (HHI), which is a single measure of concentration in a given market, indicated that both the wholesale and the retail markets were highly concentrated

- **Similar costs and prices** – GO and Melita had a tendency to often match each other's retail offers with relative ease and within a short period of time, such that the retail prices for the products of both players remained relatively similar over time. The MCA further inferred from this trend that the wholesale costs of producing these retail products must also be fairly similar[79]

- **Vertical and horizontal integration** – both GO and Melita are vertically and horizontally integrated

- **Market transparency** – movements in retail pricing are immediately known by the other operator, and each operator has developed means to observe or even anticipate the other's marketing strategy or network deployment

79 If the costs of production of broadband products were not similar, this would imply either that one of the operators is incurring a loss in order to set a price that matches that of the other provider, or that one of the operators is charging excessive prices, since its costs are much lower than the retail prices. Clearly, an under-pricing strategy by one operator would result in significant losses and so would not be sustainable in the long run. However, the MCA was of the opinion that neither broadband provider is able to provide broadband-related products and services at a significantly lower cost than its competitor, because it uses relatively similar network elements and infrastructures. Otherwise, if one operator had a much lower cost of production it would have an interest in lowering its prices below the cost of the competitor in order to increase its market share significantly, as the competitor would not be able to follow this trend in the long run.

- **Market approaching maturity** – given the high level of penetration at the time (around 75% in mid-2008), the broadband market was considered a mature market with limited growth prospects (in terms of the number of lines)

- **Lack of countervailing buyer power** – there was no credible countervailing buyer power that could be exerted on GO or Melita at the wholesale level

- **High barriers to entry** – because of the significant sunk costs involved in building a national network, the wholesale broadband market is characterized by high barriers to entry.

However, the MCA also noted that there were some criteria that did not point towards joint dominance, such as:

- **The entry of Vodafone on the basis of its WiMAX network** – after Vodafone launched attractive offerings in 2007, GO and Melita reacted to this new market constraint by upgrading their products and reducing their prices. The potential new competition from Vodafone was seen as a constraint on the behaviour of Melita and GO, both in terms of improved new offers at the retail level, but also in terms of co-ordinated behaviour. Finally, Vodafone's commitment to provide wholesale access was assumed to lead to the entry of this player in the wholesale broadband market.

- **The potential for new broadband wireless access (BWA) networks** – the MCA awarded three BWA licences in 2005 (to Vodafone, Cellcom[80] and MobIsle[81]), with an obligation to cover more than 90% of the population within three years of award. The MCA considered that additional potential competition would also create a further potential constraint on the behaviour of Melita and GO.

- **The evolution of broadband offers** – a few months before the MCA released the new decision for the previous market review, significant changes had occurred, with GO and Melita revamping their product offering to include new improved packages (higher speeds, higher download limits). This intensified competition on the retail market, both in terms of prices and in terms of product characteristics, suggested to the MCA that a positive change in market dynamics was occurring, pointing towards a more competitive market.

On the basis of these findings, the MCA concluded that there was insufficient evidence to determine that Melita and GO had a joint dominant position. This resulted in the withdrawal of all regulation from the wholesale broadband market, even though the MCA recognised that there was probably still a good case for regulation at wholesale level.

80 Cellcom used to be a consortium of ISPs that also purchased wholesale broadband access from GO.

81 MobIsle has since been acquired by GO.

► *Evolved market environment in 2012*

Of the three main criteria that did not point towards joint dominance, the first two have failed to materialise: Vodafone and other potential BWA players failed to make a real impact on the retail broadband market (and Vodafone eventually did not offer wholesale access to its WiMAX network as there was never a request for such access).

However, regarding the third criterion, it is clear that the retail broadband offers from GO and Melita have continued to evolve, with continual reductions in prices, and increases in speeds and volume caps (as illustrated in Figure 4.14 and Figure 4.15 in Section 4.3.1). These developments are partly a result of substantial technical innovation since 2008, with Melita deploying DOCSIS3.0 and GO rolling out FTTC. The strong levels of innovation and the existing competition based on both price and services tend to contradict any potential finding of joint dominance.

In addition, absent regulation in the wholesale broadband market, the retail broadband market has evolved in a positive manner, with continued growth in terms of broadband penetration, and increased take-up of higher-speed packages and bundles.

The MCA also wishes to stress that although several of the factors that pointed towards joint dominance in 2008 are still valid (such as market transparency and concentration or high barriers to entry), others are no longer true:

- Retail prices and products are now less similar than they used to be. For example, while Melita now offers speeds up to 100Mbit/s, GO still only offers packages up to 20Mbit/s. As illustrated in Figure 6.2, this has introduced a clear differentiation in terms of price ranges between the packages of GO and Melita. Melita's packages now cover a much wider range of needs than GO, particularly those relevant to bandwidth-hungry end users.

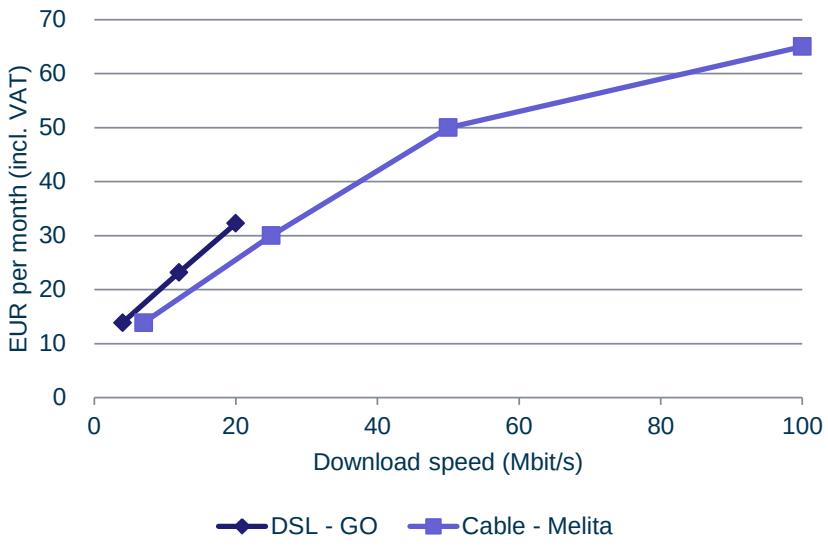


Figure 6.2: Download speeds and prices of current retail packages sold by GO and Melita [Source: Analysys Mason, March 2012]

- While the retail market may soon plateau in terms of lines, additional revenue growth may be expected. As discussed in Section 4.3, the market is now evolving under a new growth paradigm: towards higher speeds and more bundling. While it is unclear whether much higher speeds (e.g. 100Mbit/s) will justify higher broadband prices than today, it is a market reality that significant revenue growth may be achieved from a massive conversion of the broadband user base to multiple-play products. Thus, although the market may soon reach saturation in terms of number of lines, additional revenue growth can still be expected.

In addition, the prospect of having a newly-built fibre-based infrastructure (either provided by GO alone or under the Government's national broadband plan) means it is possible that new players could enter the wholesale broadband market.

As a result, the MCA believes that there is no sufficient evidence to prove that GO and Melita enjoy a joint dominant position. Since the last review, the retail market has undergone a positive evolution, with a greater differentiation between the behaviour and positions of GO and Melita in 2012 than there was in 2008.

The MCA acknowledges that until a new fibre-based infrastructure has been built, there may still be a good case for regulation at the wholesale level. However, given the insufficiency of evidence, the MCA declares that no operator in the wholesale broadband access market has been demonstrated to enjoy a position of SMP.

> Throughout its analysis, the MCA has found that Melita and GO could not act independently of each other and, ultimately, independently of other players. Consequently, the MCA considers that at present there is no clear evidence to supports a finding of single market dominance at the wholesale level.
>
> Nevertheless, the MCA is of the opinion that given the similar positions held by Melita and GO at the wholesale level, this market merits a further assessment for the potential finding of joint dominance.
>
> In its last market review in 2008, the MCA carried out an extensive review of the conditions which would lead to joint dominance. Since then, the retail market has undergone a positive evolution with a greater differentiation between the behaviour and positions of GO and Melita in 2012 than there was in 2008. As a result, the MCA believes that there is no sufficient evidence to prove that GO and Melita enjoy a joint dominant position. Therefore, the MCA declares that no operator in the wholesale broadband access market has been demonstrated to enjoy a position of SMP

Q7. Do you agree with the above preliminary conclusions regarding the market analysis of the wholesale broadband access market?

6.3 Regulation and remedies

In accordance with Regulation 5(4) of the ECNSR, where an operator is designated as having significant market power in a relevant market, either individually or jointly with others, the MCA is obliged to impose on such operator appropriate regulatory obligations, referred to in sub-regulation (2) of Regulation 5 of the ECNSR, or to maintain or amend such obligations where they already exist.

However, in accordance with Article 4(2) of the ECRA, where the MCA concludes that a finding of dominance cannot be ascertained, the MCA is not allowed to impose or maintain any specific ex-ante regulatory obligations.

Currently no regulatory obligations exist in the market. Given that no SMP designation is made within the framework of the review of the market, the MCA will not impose any ex-ante regulatory obligations on the Maltese wholesale broadband market.

Q8. Do you agree with the above preliminary conclusions regarding the regulatory approach to the wholesale broadband access market?

7. Instructions on how to respond to this consultation

All comments are welcome. However, it would make the task of analysing responses easier if comments were referenced to the relevant question numbers from this document.

The consultation period will run from the **15th June to the 3rd September 2012**. During this period the MCA welcomes written comments on any of the issues raised in this consultation document.

The MCA appreciates that many of the issues raised in this consultation document may require respondents to provide confidential information if their comments are to be meaningful. Respondents are requested to clearly identify any material that is confidential and if possible to include it in a separate annex to the response.

Having analysed and considered the comments received, the MCA will review this analysis and publish a report on the consultation. This report will, inter alia, summarise the responses to the consultation and serve as notification document to the Commission.

In order to promote further openness and transparency, the MCA will publish the names of all respondents. Moreover, in the interests of transparency, all representations will be published, except where respondents indicate that a response, or part of it, is confidential. The MCA will take the necessary steps to protect the confidentiality of all such material from the moment that it is received at the MCA's offices. In the interests of transparency, respondents should avoid applying confidential markings wherever possible.

All responses must arrive at the MCA no later than the 3rd September 2012. Submissions received after this date will not be taken into account. The MCA is hereby granting an extended consultation period taking into account summer holidays and a number of other concurrent consultations published by the MCA. No further extensions to this deadline can be granted.

All comments should be made in writing and where possible sent by email to patrick.b.vella@mca.org.mt. However, copies may also be posted or faxed to the address below.

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