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ENHANCING COMPETITION IN TELECOMMUNICATIONS: PROTECTING AND EMPOWERING CONSUMERS

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FOREWORD

This report was prepared by Dr Patrick Xavier, Faculty of Business, Swinburne University of Technology, as a joint project of the Working Party on Communications Infrastructure and Services Policy (CISP), part of the Committee for Information, Computer and Communications Policy (ICCP), and the Committee on Consumer Policy (CCP). The report was discussed by the CCP in April 2007 and the CISP in June 2007.

The report draws on the proceedings of, and papers presented to, two OECD Roundtables convened by the CCP in October 2005 and October 2006. The proceedings of the October 2005 Roundtable are available on the OECD website at www.oecd.org/dataoecd/31/46/36581073.pdf. The proceedings of the October 2006 Roundtable are available at www.oecd.org/dataoecd/5/38/39015963.pdf.

The report was declassified by the ICCP Committee in October 2007 and subsequently by the Committee on Consumer Policy.

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MAIN POINTS

The regulation of the telecommunications sector has focused mainly on the supply side of the market including, for example, market entry and licensing, access to and use of networks, interconnection, control over retail and/or wholesale pricing. Even the regulation of universal service has to a large extent emphasised the supply side through such requirements as the need to build-out networks and make access available at a reasonable price, setting geographically average prices for subscriber lines and determining technical requirements to facilitate consumer use (*e.g.* sound quality, access for the hearing impaired).

This emphasis on the supply side has been appropriate since the task was to install effectively competing alternative suppliers in former monopoly telecommunication markets. As competition has developed and the number of new entrants in fixed and mobile telecommunication markets has grown, there has been increased attention by some telecommunications regulators on the consumer demand side. For instance, a 'demand-side' measure introduced in many OECD countries is the requirement for 'number portability' aimed at facilitating consumer 'switching' in the fixed line and mobile markets.

Such attention to the consumer demand-side is timely because informed consumers who are prepared to exert an ability to choose between competing suppliers are necessary to stimulate firms to innovate, improve quality and compete in terms of price. In making well-informed choices between suppliers, consumers not only benefit from competition, but they initiate and sustain it. Conversely, where consumers have too little information, poor quality information, or mis-information, they may end up misled and confused by the choices on offer, may pay too much or buy the wrong service. This may, in turn, inhibit and dampen the competitive process. For consumers to engage effectively in the market and use their ability to vote with their wallet, they need to be able to move quickly and with the minimum constraint between service providers.

Government policy and regulation, in addition to facilitating well-functioning markets, which includes ensuring that consumers have the ability and confidence to engage in those markets, has also been concerned with minimising detriment to the consumer interest resulting from a lack of consumer information, or misleading information, or mis-selling, or the "bounded rationality" of consumer decision-making. Demand-side analysis is indicating improved insights into actual consumer behaviour that may exhibit systematic departures from the "rational" behaviour assumed by conventional (neoclassical) economics. That is, even when presented with full information, consumers may not always be in a position to understand and/or use that information to their advantage. This raises questions about whether, and if so, what different policy or regulatory intervention may be necessary to help consumers adopt decisions in their best interests.

This report sets out to examine the available evidence of actual consumer behaviour and analyse implications for policy and regulation. It addresses questions of:

- Whether consumers are satisfied with their present telecommunications provider.
- Whether dissatisfied consumers decide to switch.
- How dissatisfied consumers could be equipped with the information and confidence to ensure that a decision to switch or not to switch is in their best interests; and

- How the approach to this task could take account of the findings of demand-side analysis that consumers may be influenced not only by 'information asymmetry" but also by "systematic bias" in their decision-making?

The key opportunities for furthering participation in the telecommunications market revolve around efforts to: educate consumers about the alternative services and suppliers that are available; highlight the tangible benefits of any new service; make the switching process easier; and allay fears regarding the potential risks associated with switching. There may also be a role for education to make consumers aware of their biases (*e.g.* in heavily discounting costs). For instance, to counter "hyperbolic discounting", consumers might be counselled to consider carefully whether a flat rate contract or a "free" mobile phone handset with a two-year contract really does suit their usage level and pattern.

Policy makers and regulators should be mindful that the widely expressed purpose of pro-competition policy is to enhance consumer welfare. Some regulators have made an important and commendable start on work to provide evidence upon which measures to enhance consumer protection and empowerment can be based. As other regulators also begin to focus more attention on demand side analysis, the evidence will improve and deepen. This will help support further developments in competition that will serve the consumer interest.

This report arrives at a number of recommendations, including the following:

- Service providers in the communication sector should be strongly encouraged through self-regulation to develop a consumer bill of rights, to provide adequate and accurate information to consumers so that consumers may exercise effective choices and assert their rights and to put in place transparent and low cost procedures to facilitate consumers in changing service providers.
- Policy makers and regulators should develop a better and fuller understanding of the needs and motivations underlying consumer behaviour in telecommunications markets, especially those of vulnerable consumers (such as those in rural areas, the elderly, minors, disabled, those on low incomes, the unemployed).
- Policy makers and regulators, in conjunction with industry, could assist consumer participation in telecommunications markets by educating consumers about their rights, by raising awareness about new services and options offered by the market, and by making the process of switching in the fixed line, mobile and Internet markets easier, cheaper and faster.
- Regulators should consider requiring that all major operators provide complete, comparable, appropriate and accurate information to consumers through different channels (*e.g.* through leaflet, radio, consumer hotline and web-based programmes) to enable consumers, especially vulnerable consumers, to quickly identify the most suitable and best value telecommunications plan.
- Regulators could use more effective means of targeting information to vulnerable groups to provide them with practical guidance about how they can get the best deal.
- Regulators could encourage third parties, including consumer organisations, to provide price/service-comparison facilities and other relevant information through consumer hotlines, websites, etc.
- Regulators could work with the fixed line (including Internet service providers) and the mobile network operators to develop and publicise a set of comparable indicators relating to quality of service.
- Regulators should ensure that the shortest possible time is taken to complete number portability for consumers switching between fixed line and between mobile service providers.
- Regulators should require that all Internet service providers ensure a simple, free (or at least low-cost) and quick transfer for consumers who choose to switch provider.
- Regulators should require "truth-in-billing", and prohibit harmful business conduct and practices (*e.g.* by prohibiting mis-selling, misleading advertising).

ENHANCING COMPETITION IN TELECOMMUNICATIONS: PROTECTING AND EMPOWERING CONSUMERS

1. INTRODUCTION

This report sets out to examine available evidence of actual consumer behaviour in the telecommunications market and analyse the implications of such behaviour for policy and regulation in the consumer interest. It seeks to identify specific measures for consumer protection and empowerment in telecommunication markets. The report has a particular focus on *ex ante* regulation of the telecommunications sector, but also considers other measures for enhancing consumer empowerment and consumer protection, that do not necessarily involve regulation. The report also discusses influences on switching decisions and examines the evidence that is available about actual consumer decision-making behaviour in telecommunications markets. The report concludes with an examination of the implications of the analysis for consumer policy and regulation.

Background

Regulation in the telecommunications sector has focused mainly on the supply side of the market including, for example, market entry and licensing, access to and use of networks, interconnection, control over retail and/or wholesale pricing. Even the regulation of universal service has to a large extent emphasised the supply side through such requirements as the need to build-out networks and make access available at a reasonable price, setting geographically averaged prices for subscriber lines and determining technical requirements to facilitate consumer use (*e.g.* sound quality of service, access for the hearing impaired).

This emphasis on the supply side was appropriate because the task was to install effectively competing alternative suppliers in monopoly telecommunication markets. As competition has developed in telecommunication markets and users have a wider choice of service providers, there has been increased attention by some regulators on the demand side. For instance, a 'demand-side' measure introduced in many OECD countries is the requirement for 'number portability' aimed at facilitating consumer 'switching' in the fixed line and mobile markets.

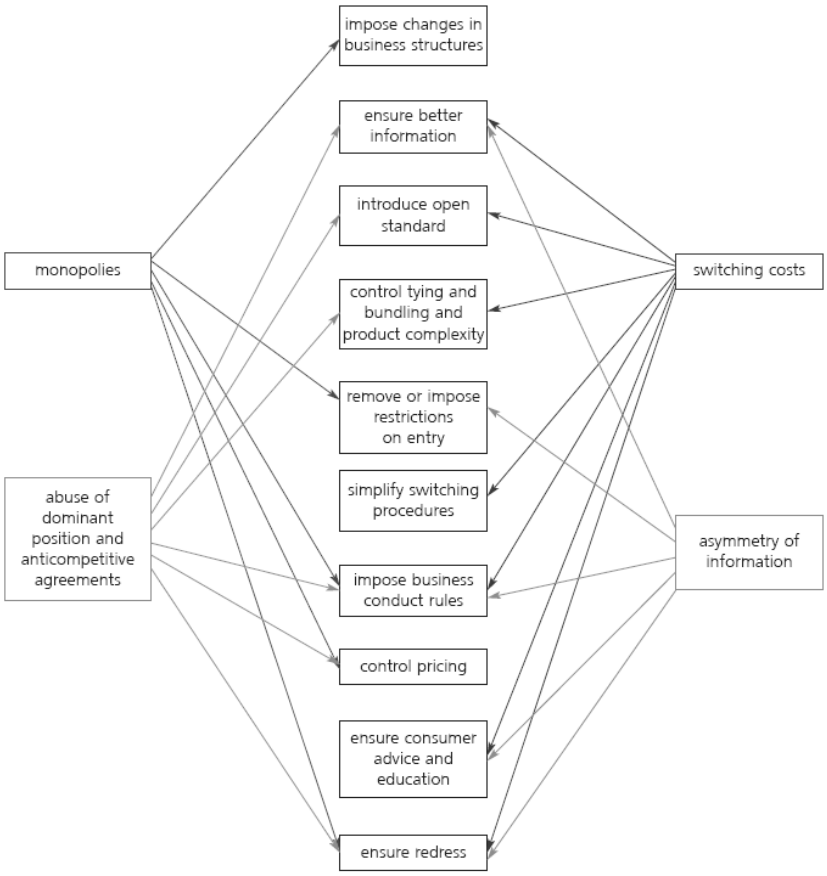
Such attention to the consumer demand side is timely because informed consumers prepared to choose between competing suppliers are necessary to stimulate firms to innovate, improve quality and compete in terms of prices. Indeed, in making well-informed choices between suppliers, consumers not only benefit from competition, but they exert the sustained pressure for providers to compete for their custom. Conversely, where consumers have too little information, poor quality information, or mis-information, they may end up misled and confused by the choices on offer, may pay too much or may buy the service which does not meet their needs. This may, in turn, inhibit and dampen the competitive process. Moreover, if suppliers can exploit consumers this could at some point lead to 'reputational damage' and disillusionment with the competitive process as a whole. Hence consumer empowerment and protection is critically important from an economic as well as social rationale.

Telecommunication policy and regulation in the interest of the consumer

Policy and regulation in the telecommunications sector has long been concerned with the consumer interest (including consumer protection and empowerment). Legislation, policy and regulatory statements repeatedly stress that the welfare of consumers is a, if not *the,* primary objective of policy and regulation. [1] In OECD countries, policy and regulation for telecommunications has been pro-competitive in recent years since competition is viewed as having wide economic benefits and benefitting consumers. Rivalry among suppliers to attract and retain consumers means that suppliers who serve consumers well will prosper, and those that serve them badly will not. Pro-competition policies have included *ex ante* sector-specific regulation and *ex post* competition policy based on general competition law to foster competition and restrict anti-competitive conduct. Figure 1 summarises the various aspects of pro-competition policy. Sector specific *ex ante* regulation of telecommunications services has covered a range of areas, including:

- The regulation of licensing to permit market entry.
- *Ex ante* regulation to foster sustainable competition, including asymmetric regulation (whereby a dominant operator is subject to more regulation).
- Interconnection.
- Price controls, including 'price-cap' regulation to ensure prices (on average) fall in real terms.
- Price rebalancing – long-term consumer interests (choice) versus short-term (lowering prices).
- Numbering policy.
- Universal service.
- Local loop unbundling.
- Regulation to facilitate the process of new technology and 'convergence'.
- Regulation to facilitate interoperability.
- Initiatives to protect consumers regarding contractual arrangements and unfair trading.
- Quality of service.
- Carrier selection, call-by-call selection and preselection.
- Number portability.
- Information provision obligations *e.g.* relating to price and quality of service.

Figure 1. Pro-competition policy measures



Source: Jill Johnstone and Alena Kozakova, "Imperfect Markets", National Consumer Council (UK), October 2006.

Now with market liberalisation and alternative telecommunications suppliers becoming firmly installed in many OECD countries, questions are emerging about the extent to which consumers have 'switched' to these alternative suppliers as much as had been expected. If not, why not? Should policy makers/regulators intervene? If so, how? In seeking to answer these questions, important lessons can be drawn from analysis of the demand-side, including new insights from behavioural economics into actual consumer behaviour.

Demand side analysis

Conventional economics starts with a number of assumptions about consumer behaviour, including that:

- Consumers approach markets with a set and stable set of preferences.
- Consumers are concerned only with their own welfare.
- In aggregate at least, consumers can rationally use available information to make optimal decisions.

- Consumers face a "bounded rationality" (*e.g.* in the form of various costs of acquiring and processing information) and, as a result, rely on 'heuristics' (such as reliance on a firm's reputation and other price and quality signals) in decision-making.

Demand side analysis, including behavioural economics, goes beyond these assumptions. It argues that in some situations consumers consistently depart from behaviour predicted by these assumptions. In other words, consumer choice is biased away from those that would occur if behaviour conformed to the assumption of "rationality". A key issue for a demand-side analysis is examining "what is actually going on in terms of consumer outcomes"? This involves examining the product features as well as consumer choice issues and how the product or service is being offered or presented. An important insight of behavioural economics is that it is not only the product that matters but the context as well.[2]

Information imperfections

The conventional economic approach recognises that information asymmetry and information failure may lead to sub-optimal consumer outcomes. Consumer policy has therefore focused on removing those market failures that prevent consumers who, even though they behave rationally, are nevertheless prevented from making optimal choices that maximise their welfare.

A substantial amount of regulation has been directed at these problems, including misleading conduct laws (*e.g.* prohibition on fine print disclaimers, requirement for plain language contracts); disclosure requirements, product regulation; and regulation aimed at allowing consumers to conveniently switch between suppliers – such as the development of interoperability standards and number portability (as discussed later) in the telecommunications industry. Other potentially useful tools include: provision of comparison data for consumers and the use of calculators (technical tools usually on websites) allowing consumers to enter data to enable them to make price comparisons in complex markets.

Behavioural issues

Behavioural economics challenges some of the presumptions of conventional economics that consumers make their choices coherently and rationally given their preferences and the constraints upon them. It argues that consumers often fail to act in their own best interests due to behavioural traits such as failure to process information objectively or mis-evaluations about the costs and benefits of prospective decisions.[3] Among the biases identified by behavioural economics traits, the following may be particularly relevant to the telecommunications market and may help to explain how, even where there is adequate information, consumers may be making seemingly irrational decisions in choosing an operator or service package:

- **Choice or information overload**: consumers having too many products or features to compare may experience increased anxiety about the possibility of making a bad choice. This can lead to random choice, or failure to make any choice, resulting in missed opportunities for buyers and sellers. A type of "analysis paralysis" can take hold when information and choices become very complex.
- **Endowment** – consumers may be reluctant to give up what they have, even though they would not buy such goods or services if they did not already have them (*e.g.* consumers may stay with the incumbent fixed line provider because of misplaced loyalty, a failure to acknowledge poor choices in the past, or an irrational consideration of sunk costs).
- **Defaults** – the ordering of options, particularly in markets where a choice must be made, influences choice. Consumers may tend to take a path of least resistance, particularly if they feel there is a 'normal' option (*e.g.* people may buy 'standard' bundles offered by telecommunications suppliers, even if they do not want the whole telecommunications bundle).

- **Hyperbolic discounting** – consumers tend to be short-sighted when making decisions with immediate costs or benefits to be weighed against future costs or benefits (*e.g.* consumers may enter long-term telecommunications contracts because they place more value on the immediate benefits of the offer, such as a free or heavily subsidised handset or a reduced first month rate, or free local calls, rather than on the long-term costs of a contract such as high price for calls exceeding a usage 'bucket', the inability to switch to lower-priced alternatives, and the inability to take advantage of latest technology).
- **Framing biases** – consumer choice is influenced by the 'frame' in which information is presented. Presentation of *the same* information in a different 'frame', can lead to a different decision. For example, "all calls to national fixed lines free" would obtain a different response than "pay only for national calls to mobile phones".
- **Heuristics** – consumers often take short cuts (*e.g.* by following rules of thumb) when the decision environment is too complex relative to their mental and computational capabilities. These rules of thumb are called "heuristics" and are often accurate enough to be useful, but may sometimes lead to sub-optimal decisions.

Instruments for addressing such behavioural bias include: resetting defaults by requiring options to be presented in ways which may lead consumers to overcome "default inertia" and make better choices; reframing by requiring providers to present information in a variety of frames, or in specific frames which may guide sound consumer choice; mandating cooling-off periods allowing consumers an opportunity for rational consideration to overcome the influence of impulsive choice, such as represented by hyperbolic discounting; and general de-biasing by educating consumers of their biases, and helping them develop mechanisms to overcome those biases which go against their self-interest.

2. INFORMATION IMPERFECTIONS AND CONSUMER EMPOWERMENT

Consumer detriment resulting from imperfect information

Consumers can be disadvantaged and suffer detriment when information is withheld, when there is deception in the information provided, or when information is too difficult for consumers to obtain or evaluate. Alternatively, constraints on the ability of consumers to process information can lead to welfare-reducing decisions even when the information available is non-deceptive.

Where consumers have too little information, or too much information of inconsistent quality, various types of detriment can arise, including:

- Consumers failing to participate in the market at all, because they have limited awareness of the products and services on offer, or conversely because they are confused by an excess of available information (sometimes referred to as 'information overload').
- Consumers paying too much.
- Consumers not buying the product or service that best meets their needs.
- Consumer disappointment with the product or service, because it turns out to lack the expected level of quality (Ofcom, 2006a).

In order to avoid such harm, consumers may need to be empowered through:

- Awareness of alternative suppliers and services.
- Access to comparative information on the features, prices and quality of the available services.

- Ability to switch provider at an acceptable cost, including the cost of access to information and on the processes involved in switching.

This section discusses consumer awareness and access to comparative information, while the next section (section 3) discusses influences on switching.

Awareness

Awareness that alternative suppliers are available is critically important. Such awareness has increased significantly over recent years, not least due to increased competition in the fixed line, mobile and broadband markets. In those areas where awareness is lower – notably in relation to fixed line telephony, growing competition is expected to lead naturally to an increased awareness of alternative providers. For instance, the UK communications regulator, Ofcom, does not believe there is a strong case for intervention in this area since research suggests that in general, the majority of consumers are aware of alternative providers of communications services (Ofcom 2006b), although it is recognised that there may be some vulnerable groups of consumers who may not be as aware. Also there may be less awareness of measures such as the availability of price comparison calculators (discussed later), number portability and other aspects of consumers' rights that result in a fear of switching.

Access to comparable information on prices and quality

Constraints on the ability of consumers to process information can lead to non-optimal, welfare-reducing decisions even when the information available to them is non-deceptive. For example, comparison of prices for telecommunications services offered by different suppliers is complicated by the wide range of possible consumer usage patterns, detailed variations in price levels and price structures and the large number of possible discount and bundled schemes available. Tariff plans commonly employ an increasing variety of structures and discount schemes such as:

- Per-minute charge with minimum call charge.
- Call set-up charges plus per-minute charge.
- Peak / off-peak rates.
- Volume discounts.
- Discounts on favourite numbers.
- Discounts or free on local calls.
- Cheaper calls as calls get longer.
- Cheaper calls as total usage in a billing period increases.
- Every third minute free.
- Voice calls with different billing increments (one second, one minute, one hour).
- Data calls with billing increments in time and/or Mbyte.
- Flat-rate calls.
- Different peak/off-peak periods (*e.g.* choose your own off-peak period).
- Development of hybrid prepaid and post paid mobile tariffs.
- Subscription charges that decrease over time (*e.g.* every six months).
- Bundling of fixed and mobile, voice and data services.
- Free trial periods for new services.

Moreover, operators and service providers regularly adjust their pricing strategies either through changes in components of their tariff structure, or the introduction/withdrawal of various discount schemes and service packages. In short, the wide range of tariffs and discount schemes make it difficult for consumers to calculate which tariff, from which supplier, would amount to the best deal or an improvement on their existing service. To make a fully informed decision, consumers would need to study a detailed breakdown of their call profile (the number, type, duration and timing of calls made). A survey in the United Kingdom, for example, indicated that over one third of consumers found it difficult to compare prices in the fixed, mobile and Internet market segments (Ofcom 2006b).

Fixed line price comparisons

In the fixed line market, consumer confusion can arise both in the purchase of local and long distance services. Many operators have begun bundling local and long distance calls with line rental access and have introduced various pricing scheme combinations which allow consumers to choose between higher line rental and associated lower local and long distance call prices or lower access and higher call charges. In many cases the bundled offers come with a certain number of local or long distance calls being provided without additional charge as part of the package.

In Ireland, for example, eircom's tariff plans bundle line rental (either PSTN or ISDN) with calls. eircom Talktime has four levels and is aimed at residential consumers and consists of a core package which bundles rental with local and national off-peak calls as well as up to two value-added phone services such as mailbox or call forwarding. The plans also offer additional minutes for calls to a nominated local or national number ("Call a friend for free minutes"). Mobile and international "add-ons" are also available for an additional fee. Carryover of minutes is allowed into the next billing period, but not thereafter.

Similarly, in August 2005, France Telecom launched "*Atout Téléphone*" (telephone advantage), a new range including four unlimited packages, two of them including a package of call minutes to fixed lines, mobiles, Europe and North America, and a package offering a price/minute reduction, for a monthly subscription. (The unlimited calls to mobiles was subsequently withdrawn by the operator and a limited number of hours of mobile calls introduced.)[4]

A variety of other fixed line residential pricing packages are available in other telecommunications markets where competition prevails. Although such pricing plans offer benefits to consumers and can provide the convenience of "one bill", they also increase the complexity of choice faced by consumers especially when competitors respond with their own bundled offerings that provide alternative pricing and usage combinations. Consumers have to consider a wide range of variables in regard to dozens of fixed line pricing packages offered by several providers. This wide choice can create information overload and confusion and can prevent consumers from making optimal choices concerning the most appropriate fixed line option consistent with their usage patterns and budget constraints (NCC, 2005).

Price comparisons in the mobile market

Strong competition in the mobile market offers potentially significant benefits to consumers who have a wide range of different plans from which to choose. For instance, Table 1 indicates a variety of mid-range plans for mobile telecommunications consumers in Australia. By paying a flat monthly fee of AUD 49 (about USD 40), a consumer can obtain between AUD 200 (USD 160) and AUD 300 (USD 240) worth of calls (depending on which operator is chosen) as long as they stay below the allocated limit of call charges.

Table 1. Mid-range mobile telecommunications plans in Australia

Carrier	Credit	Cost
Gotalk	$200	$45
Telstra	$200	$49
Austar	$230	$49
Virgin	$230	$45
Primus	$230	$49
AAPT	$240	$49
Simpliciti	$240	$47
Dodo	$250	$49.90
Slimtel	$250	$49
Vodafone	$280	$49
3 mobile	$300	$49
Optus	$300	$49

Source: PhoneChoice quoted in the *Age* Newspaper, 7 March 2007.

However, consumer surveys across a number of OECD countries have revealed that consumers find it difficult to compare mobile pricing plans offered by different operators because of the wide variety of plans with complex rate structures that impose different restrictions on use. In many countries consumers pay different amounts for calls depending on whether the called party is on the same network as the caller or not. In addition, call prices may depend on the time the call is made and how many calls the calling party has already made in the relevant billing period. In many cases consumers have even expressed difficulty in choosing between mobile pricing plans offered by the same operator (ACMA, 2006).

Comparison of retail prices of mobile plans can be difficult also because of the bundling of calling and access charges. For example, plans with higher monthly access charges usually come with a larger number of unmetered call minutes. Also adding to the complexity is the range of mobile packages offering different combinations of monthly charges, free calling minutes, and peak and off-peak calling rates.

In the United States, consumer advocates have complained that operators make it extremely difficult to determine the final price of a mobile service by incorporating a range of surcharges in call prices that are not immediately apparent in the prices publicised in consumer advertising and promotional literature (Illinois PIRG, 2005). Consumers in the United States can turn to local and national consumer groups for surveys and other data on mobile services. The media in the United States frequently compare and publicise differences in service, quality and price. There are several dedicated websites that also provide price comparisons. In Korea, the Ministry of Information and Communication has a website allowing users to search for their optimal tariff package based on their mobile usage pattern. The site also allows users to compare their current tariff package with those of other operators.[5]

There have also been complaints from consumers that services included and excluded in a capped plan from some operators were not clearly explained to them. For instance, services such as text or picture messaging and data such as Internet content might fall outside a capped plan, being billed on top of the flat monthly fee. Consumers have also complained that they have been unaware that they have breached a cap since some operators provided no tools enabling them to monitor their usage, hence it is all too easy to exceed the limit and be subjected to high excess charges.

These complaints seem to be supported by the apparent inability of many consumers to effectively utilise the inclusive (or 'capped') minutes available in many mobile packages. A UK survey (NCC, 2006) disclosed that one-third of consumers do not use all the inclusive minutes available to them. Notably, almost 20% of those on monthly contracts claimed that they usually use less than half of their inclusive

minutes. By contrast, 40% of consumers usually buy more minutes than those allocated to them as part of their package. This suggests that many consumers may either: systematically overestimate usage levels and choose plans with higher rental charges and more available minutes than they actually require, or underestimate usage and end up paying significantly higher prices for additional minutes above those provided as part of their pricing plan.

A recent academic study has suggested that some mobile operators in the United States take advantage of consumer misperception in underestimating usage requirements (Bar-Gill, 2006). The study found that there is a steep jump in per-minute charges when consumers exceed a plan's usage limit. Many contracts specify an increase of more than 100% in the per-minute price, with some contracts specifying increases of 200% and above. The study observes that such significant increases do not reflect a corresponding change in the provider's per-minute cost.

A further problem in the mobile market relates to the lack of transparency of charges for international roaming. Roaming charges are complex and not well understood by consumers. Indeed, some consumers may not even be aware that these charges exist. Even though all operators charge mobile subscribers for receiving incoming calls while roaming overseas, UK research suggests that a third of small to medium enterprises either do not know whether they are charged for receiving incoming calls when roaming, or believe that they are not charged (Oftel 2001). In June 2007 the EU announced decisions to significantly reduce roaming charges. Another development is the implementation of a website dedicated to publicising roaming tariffs (http://ec.europa.eu/information_society/activities/roaming/index_en.org). Also a GSM Europe web site contains a roaming charges tool allowing comparison of prices within Europe (http://www.roaming.gsmeurope.org).

Hyperbolic discounting in mobile telephony

The high prices set for call minutes beyond the plan limit may be one illustration of "hyperbolic discounting" by consumers who heavily discount the prospect of such costs in the future. Providers can exploit consumers' underestimation of their future telecommunications usage by bundling airtime, handsets, and other services such as voice mail. The high long-term prices consumers end up paying subsidise the free or heavily subsidised handsets, free calls and voicemail etc.

Difficulties in comparing broadband prices

Price complexity is also a key characteristic of broadband service packages. As an example of the complexity involved, a consumer in Australia seeking a broadband plan could be confronted by more than 2 000 plans from more than 500 ISPs. These plans differ in regard to the monthly price charged, the upload and download speeds offered and the degree to which the speeds are "shaped" above a certain level, the amount of prepaid data provided as part of the plan, the price charged for excess data above the maximum allowance and the set-up fee involved.

Moreover, there continue to be sharp changes in Internet prices. While these changes can provide consumers with financial benefits, they can also add to the difficulty in making price comparisons. Indeed, in the United Kingdom, the prices of broadband Internet access has dropped so much that they have become cheaper than dial-up service. According to SimplySwitch.com (a price comparison service), consumers with a dial-up connection are now able to make significant savings by switching to broadband, irrespective of whether they pay per minute or a monthly fee for unlimited access.[6]

SimplySwitch estimates that pay-per-minute dial-up consumers who use the Internet for just two hours per week could save money by switching to broadband. SimplySwitch estimates that nearly all Internet service providers offer unlimited broadband packages that are significantly cheaper than

equivalent dial-up deals. Telewest and NTL customers could save about GBP 60 per year by switching to broadband while those with Tiscali and AOL could save GBP 33 and GBP 12 respectively per year. This development provides an interesting situation that allows assertions about consumer behaviour to be tested. If Internet consumers are indeed aware, rational and 'empowered', a significant switch from dial-up to broadband might be expected to occur.

Bundling

The provision of bundled services offering fixed services together with a combination of mobile/broadband/digital TV offer lower prices, a single bill and new innovative services which is giving consumers the opportunity to purchase services that are more tailor-made. But it also means that consumers face an increase in complexity – not just in the number of communications services they buy but also in the complexity of each individual service. And, because each bundle available has a different set of characteristics this may also lead to difficulties in comparing offerings. Thus services which facilitate the comparison of the prices of service bundles should be encouraged. In this context Ofcom has indicated that it will extend accreditation to and encourage services that allow consumers to compare services bundles (Ofcom 2006a).

Improving access to price comparison information

Market solutions can emerge to address information asymmetries. For example, there are Internet-based companies[7] that provide price comparison information to assist consumers to make informed decisions, including whether to enter into a contract with a supplier. These services may also provide information on how to switch supplier once a contract has been entered into.

Regulators too may have a role to play in enabling consumers to make effective choices, particularly as the ability to compare and switch offerings becomes more complex as a result of service bundling, convergence and NGN. This could be achieved by encouraging suppliers to change the way they present information to their consumers. The presentation of prices in a standardised, more quickly comprehensible manner/form can assist in this regard. Or it could mean a regulator promoting intermediaries that provide price comparison information. In some cases – perhaps where more generic information about communications markets as a whole and opportunities for switching is required – a regulator may sometimes be best placed to provide information itself.

However, the benefits of possible regulatory intervention to promote information disclosure have to be weighed against the disadvantages. In the United States, the Federal Communications Commission (FCC) found that once competition in the wireline, long distance telecommunications market was robust, a requirement that operators publicly file tariff changes with the FCC chilled competition in the market. The filing of a tariff also signalled to competitors the pricing strategy of the operator and, under US law, relieved the operator of the responsibility of alerting individual consumers of a price change. In 2001, wireline long distance services were de-tariffed.

Under Article 22 of the European Union's Universal Service Directive (2002), the National Regulatory Authorities (NRAs) can force suppliers to participate and publish information for consumers.[8] The EC has identified two main problems in relation to the transparency and publication of consumer information (EC, 2006). Firstly, callers are often unable to find out, or are not aware of, which tariff applies to their services. For example, when calling a premium rate number, consumers are not always adequately informed on the price involved or even on the type of service behind the number. Another example is that a mobile call to a number advertised as "free-phone" may be not free. Secondly, the EC recognised that making price comparisons can be difficult for consumers, particularly in cases of service bundling.

The EC suggested changes that would:

- Give NRAs powers to require from operators better tariff transparency (with the possibility to agree technical implementing measures at EU level) to ensure that consumers are fully informed of the price before they purchase the service.

- Ensure that third parties have the right to use without charge or hindrance publicly available tariffs published by undertakings providing e-communication services, for the purpose of selling or making available comparative price guides.

- Empower NRAs to make price guides available where the market has not provided them.

A number of national regulators have been encouraging the provision of devices such as price comparison calculators. For example, in 2002 Oftel introduced the 'PASS' scheme enabling it to accredit websites that compare the prices and services of different suppliers impartially and accurately (according to standards specified by Oftel). Ofcom has also proposed a new improved scheme aimed at addressing the increased complexity resulting from convergence and service bundling by extending accreditation to services that enable consumers to compare service bundles. Ofcom believes that this new improved scheme, offering consumers quality-assured price comparison services for both single and bundled communications services would be the most effective means of ensuring wide availability of effective price comparison information.

In Ireland, too, the regulator Comreg supports an interactive website (www.callcosts) to help consumers in comparing the cost of personal/non-business mobile, home phone and broadband price plans.

In Portugal, Anacom has installed an on-line tool for price comparison calculations (http://www.anacom.pt/template30.jsp?categoryId=60307). This "Tariff Monitor" includes national voice calls (*i.e.* calls made from national mobile networks to national mobile network numbers in the domestic territory and to fixed network geographic numbers), SMS and MMS.

Comparing quality of service

To benefit from competition, consumers need to be well informed, not just about price but also on the qualitative aspects of the service. Consumer research indicates that quality of service is the second most important driver of switching after price (Ofcom, 2006a). Business as well as residential consumers are interested in quality of service comparisons. For instance, in the United Kingdom, the majority of small and medium sized enterprises (SMEs) indicated a keen interest in comparing quality of service for both fixed line (74%), mobile (82%) and Internet (87%) (Ofcom, 2006a).

In a competitive market there are clear incentives for providers with a high quality of service to let consumers know about it. In some countries service quality is a major factor in the promotion of competitive services. For instance, in the United States, it is the focus of significant industry educational (advertising) efforts, such as Verizon Wireless' "Can you hear me now" campaign. But there is little economic incentive for those providers offering a low quality of service to produce timely and accessible comparable quality of service information.

Even though there is considerable information available on quality of service, it does not seem to be providing consumers with the information they want. Australian research, for example, has found that 65% of residential consumers and 74% of businesses believe that it is difficult to compare the service features of different telecommunications companies (ACMA 2006). Specific quality of service issues that have been identified in fixed line, mobile telephony and broadband markets are discussed below.

Fixed line quality of service

In the fixed telephony market, many OECD countries require operators to report quality of service indicators regularly both to the regulatory authority and to consumers.[9] Various countries also have standards that must be met in respect to established indicators. Canada, for example, sets targets for quality of service and imposes financial penalties on operators that do not achieve the targets.[10] In Portugal, ANACOM has installed regulations that establish a set of quality of service parameters that can be measured (and effectively compared) and published for end-users. In the United Kingdom, the importance of readily 'comparable' quality of service indicators is recognised with General Condition 21 providing that: "Communications Providers shall, on the Direction of Ofcom, publish comparable, adequate and up-to-date information for end users on the quality of its service" (Ofcom 2006b). In accordance with this provision, Ofcom published a Quality of Service Direction in January 2005 requiring certain fixed voice service providers to publish comparable, adequate and up to date information for end users on quality of service.

Despite the existence of various types of information on fixed line quality of service, many consumers indicate that they would prefer greater levels of quality of service information to be made available. A UK survey, for example, found that 31% of fixed line consumers would prefer more readily comparable quality of service information to be made available (Ofcom 2006b).

Mobile telecommunications quality of service information issues

Evidently, a large number of mobile telecommunications consumers consider that it is overly difficult to compare the quality of service levels being offered by different operators. A Canadian survey, for example, found that only 44% of mobile telephony consumers believed that it was easy to compare the service levels offered by mobile operators. Notably, Table 2 indicates that this percentage has been falling steadily since 2003 with 55% in 2003, 47% in 2004 and 44% in 2005, suggesting that more and more Canadian mobile telecommunications consumers are finding it less easy to compare quality of service levels.

Table 2. Consumers' ability to compare mobile quality of service

	2003	2004	2005
Easy to compare	55%	47%	44%
Not easy to compare	33%	36%	36%
Don't know/did not answer or service does not apply	12%	16%	20%

Source: CRTC, "Status of Competition in Canadian Telecommunications Markets", October 2005.

Similar results have been reported across a number of other OECD countries (Milne 2006). In Australia, consumers have expressed high levels of dissatisfaction with the difficulty in accessing comparable performance information for mobile services and with the information produced by carriers that makes it difficult to compare products within and between service providers (ACA, 2001).

However, despite consumers indicating that they find it difficult to compare quality of service differences among operators, interestingly a UK survey found that a majority of consumers indicated that they are unlikely to use such information even if it were easily available to them (Ofcom 2006b). This may indicate that price is a more important criterion to consumers than quality comparisons. It may also indicate dissatisfaction with the indicators currently used.

The difficulties faced by consumers in using quality of service information (Barrow 2007) has led many regulators around the world to attempt to improve the breadth and depth of quality of service

information made available in the market (Milne 2006). However, such attempts to develop consistent, comparable indicators have had only limited success (Sutherland 2006). Issues that have proven controversial and difficult to resolve include consistency of sampling, sampling handling, measurement methods and data qualifiers and the development of consistent conditions under which measurements are carried out (Milne 2006). For example, until 2002 the Australian Communications Authority (ACA) required that carriers reported regularly on a defined set of key performance indicators. In its 2001-2002 Telecommunications Performance Report, however, the ACA indicated that it would cease publishing the data because, while all of the carriers were complying with the requirements, they were not reporting the data in a consistent, comparable manner (ACA 2002).

In the United States, media and consumer organisations are the primary source of information on quality of service for mobile communications. However, some operators have responded to requests that they develop a quality of service reporting framework by arguing that:

- The information is business sensitive and proprietary. Revealing it could damage a carrier's competitiveness by alerting its competitors to the strengths and weaknesses of its network.

- The information would not be useful to consumers trying to compare one carrier's performance with that of another carrier. Data would not be suitable for comparisons because carriers do not measure performance using a single set of standards. Also, systems using different transmission technologies respond differently to overcrowding on the network.

- The information might not be completely accurate. For example, if callers turn off the power on their phones to end a call instead of pressing the "end" button, the network might record that as a dropped call.

- Because their networks are changing rapidly, network performance data would be out-of-date before it could be used.

- Performance is affected by various transient factors, such as time of year, weather, and unusual periods of demand that tax network capacity (GAO, 2003).

In the United Kingdom, the Direction on quality of service was applied only to fixed providers as mobile operators had put in place a process to self-provide the information. For instance, mobile operators have developed a website (www.topnetUK.org) that allows consumers to compare the geographic network performance and voice call quality of each of the GSM mobile network operators (O2, Orange, Vodafone and T-Mobile). The participating mobile operators have commissioned an independent test company to regularly drive around the United Kingdom making in-car test calls on all four networks on selected roads, motorways and in selected towns and cities. Surveys are ongoing and updates are scheduled weekly.

Broadband quality of service

Because of the nature of the Internet, Internet Service Providers (ISPs) can only provide a "best efforts" service, with a target data rate, but no guarantee that this will always be achieved. A number of factors can affect the consumer's experience of an Internet connection that do not relate to the ISP, including:

- The consumer's PC, modem, and software.
- The application or content used by the consumer, *e.g.* e-mail, music or video.
- The protocols used by Internet applications.

- Capacity on shared domestic and international Internet resources.
- The popularity and capacity of content providers' web resources.
- Packetisation of information, which means that there are no dedicated data circuits and therefore variable rates at which data is transferred.

In many cases, therefore, data rates actually achieved can be significantly below those advertised. Many consumers of broadband Internet services do not understand the service characteristics and limitations of the service. In the context of such limited consumer knowledge, there is a tendency to market broadband on the basis of simple promises such as broadband being very fast or 'always on' and this can lead to disillusionment when such promises are not met. A number of areas of concern have been identified.

- In relation to speed, some consumers are not made clearly aware that there may be limitations on availability of the speeds promised, or that the advertised speeds are usually maximums or based on 'best endeavour' rather than guarantees. (However, in Portugal, Internet Access Service providers are obliged to give their clients information about limitations to speed capacity every time they publish quality indexes for maximum and average speed as set out in http://www.anacom.pt/template31.jsp?categoryId=191103).

- The widespread imposition of download limits or caps expressed in Megabytes or Gigabytes that do not give consumers a clear understanding of how much content they can actually download.

- The lack of information about technology compatibility issues. This includes the need for hardware or software upgrades to deal with broadband services.

Research in the United Kingdom indicates that the majority of consumers are unaware of two key issues that might affect the quality of service of their broadband connection (Ofcom 2006b). These are the "contention ratio" which is a measure of the number of users simultaneously sharing bandwidth, and the imposition of usage caps. Both contention ratios and usage caps are almost ubiquitous in broadband service agreements. Most users are either unaware of what the terms mean and/or have an incorrect understanding of how these terms apply to them. For example, according to one study, 90% of all consumers with broadband connections had never heard of the term "contention ratio". Similarly, over 70% believed wrongly that there was no usage cap on their broadband connection (Ofcom, 2006d).

Very few countries regulate or report on broadband quality of service. Regulators in non-OECD countries that do so (such as the InfoCom Development Authority in Singapore, the Malaysian Communications and Multimedia Commission and the Telecommunications Regulatory Authority of India) measure various technical indicators such as:

- Network latency.
- Packet loss.
- Bandwidth utilisation/throughput.
- Service provision/ activation time.
- Upload time to the service providers FTP site.
- Download time from local and overseas websites.
- Service availability/uptime.

- Fault repair/ restoration time.
- Static IP address allocation.

There are other difficulties for instance: supply time; fault repair time; response time for client complaints/request for information; response time for operator services; percentage of invoices claimed, etc. These are quality of service issues that may be as relevant as the ones concerning networks only (such as the data transmission rate and latency). In fact, in Portugal the number of complaints relating to the deadline for Internet access supply and to the time lapse for damage repair exceeded, in 2006, the total complaints relating to speed.

Although such indicators might provide useful information to industry participants for benchmarking and network management purposes, there are concerns that some of them have the potential to further confuse consumers and lead to consumer disengagement. For example, research undertaken in Australia (ACA, 2004) identified the inability to compare one service offering with another, the difficulty with technical jargon and the lack of information about limitations on services (and what those limitations mean) as key consumer concerns associated with broadband. Some private sector participants have raised concerns that such nationally-developed indicators will not be able to keep pace with technological developments so as to adequately benchmark service quality.

Access to comparable information on quality of service

A consumer-led approach is essential to a competitive market. Consumer organisations can identify the main concerns of consumers, survey the market for services of good quality and price, and disseminate that information in a way which is useful to consumers. These kinds of initiatives naturally are often more credible with consumers than industry-led or regulator-led approaches.

Regulators can encourage the market to provide information on quality of service indicators for fixed voice and mobile voice through an industry-led approach in which network operators and service providers define and manage the scheme and collectively publish indicators for use by consumers. The aim should be to ensure that information provided for consumers is easily comprehensible, objective, reliable, timely and up-to-date.

Regulation should be alert to the risk, however, that imposing the same targets for all operators may limit choices of quality and price. One commentator suggests that the following overall guidelines be considered:

- Consultation should be widespread and taken into account fully before regulations are introduced.
- The measurements made should be important to consumers, practical for operators and comparable between operators. They should concentrate on few aspects of services.
- The measurements published should be helpful to consumers and fair to operators. They should be publicised in ways appropriate to the culture of the intended users.
- Any targets adopted should be useful and realistic.
- Monitoring should entail regularly examining, and understanding the basis for, the measurements. (Milne, 2006)

In the United Kingdom, Ofcom has required all fixed line providers with at least GBP 4 million net revenue and 100 million minutes of voice calls handled to end users per quarter to publish objective and comparable quality of service indicators. Fixed-line providers launched their website www.topcomm.org.uk in July 2006. The site provides comparable information on service provision, fault incidence and fault repair, complaints processing and upheld billing complaints. The data must be approved by Topcomm's independent auditor before it is published. This auditor ensures that all participants are interpreting the scheme's requirements and measurement definitions in a standard and comparable way. There is also a privately operated website providing an advisory service (http://www.simplyswitch.com).

Difficulty in making comparisons due to technical complexity

Mobile

Competing mobile telecommunications standards in various OECD countries have also contributed to technological complexity and consumer confusion. Currently mobile technologies are classified as second generation (2G), transitional (2.5G) and third generation (3G) with different features, data speeds, handsets and compatibility requirements for each technology. With a large array of technologies, standards and competing specifications and features there is a high level of confusion among consumers *e.g.* in respect to 2.5G and 3G service offerings even though competing standards may allow for new and a differentiated variety of services. Several studies on behalf of Ofcom[11] have revealed a low level of awareness and understanding about 3G technology and 3G services. However, it is possible that while the distinction between 2G and 3G may be important to a regulator like Ofcom, this indifference may mean that the 2G and 3G service in the consumers' eyes are of little distinction. This could reflect a lack of sophistication on the part of the consumer, or it could signal that the regulator's pre-occupation with the distinction is misplaced.

Broadband

In regard to the broadband market, for example, the Australian Telecommunications Industry Ombudsman (TIO), established to handle consumer complaints, has declared:

> In the TIO's experience, consumers are often easily confused about broadband, and require detailed explanation by [Internet service providers] about the process and what their expectations should be of the product they are purchasing. While there are tools available to assist consumers in their broadband purchasing decisions … consumers are not widely aware of the availability of such publications … [12]

In the United States broadband providers compete over price, functionality, and quality. It is not necessarily the case that consumers need to understand the technical differences between different providers in order to make an informed decision. On the contrary, consumers are primarily concerned about whether the service delivers as promised.

Similarly, in regard to mobile broadband technologies, there is a confusingly large array of standards surrounding WiFi and WiMAX, which makes it very difficult for consumers to understand the characteristics of each technology, make comparisons between them and assess the pros and cons of competing devices which make use of the various standards. All WiFi technologies are designated '802.11x', where the 'x' is a letter varying according to the exact 'flavour' (*e.g.* 802.11a, 802.11b, 802.11g, 802.11n). However, some of these differing standards are not compatible with each other, leading to further confusion.

Technological advances and market pressures have made telecommunications and ICT products and systems increasingly complex and feature rich. But this has also increased the complexity faced by consumers in determining appropriate products that satisfy consumer needs and in evaluating alternative product offerings by competing providers. In the face of such complexity, while consumers may need to increase their understanding of the technology, service providers who are able to articulate their offers clearly and inspire trust in consumers will be at an advantage.

3. SWITCHING

Barriers to switching

The ability and willingness of consumers to switch is critically important. If switching is discouraged or impeded, this could impact not only on the demand-side but also potentially raise supply side barriers (Barrow 2007). This is because new entrants could be deterred from entering the market in the belief that it will be difficult to persuade consumers to switch from their existing provider. This could diminish the effectiveness of competition and serve to limit the benefits that consumers would otherwise derive from it.

Research conducted by Ofcom (2006b), the UK National Consumers Council (2006) and others suggest that in the telecommunications sector there are a range of important deterrents to switching, including:

- Lengthy and cumbersome switching procedures can make it inconvenient for consumers to switch and can outweigh any potential benefits.
- Early exit charges, imposed by an existing provider, can reduce the benefits of switching.
- Confusing products and non-transparent pricing can make it difficult or time consuming to compare deals (as in the case of mobile telephony and the Internet).
- Technical incompatibility of equipment can make it uneconomical for consumers to switch (for example, if they cannot use a blocked mobile phone with their new provider).
- Long-term deals can lock consumers into lengthy relationships with their providers (as may occur with mobile telephony and Internet contracts) and increase the risk of them being overcharged.

Barriers to switching can be present due to high switching costs. Switching costs can be defined as the real or perceived costs that are incurred when changing supplier but which are not incurred by remaining with the current supplier.

Consumers will not switch to a competing brand unless the price difference exceeds the switching costs. Where switching costs are high, it is possible for a provider to set very low prices, even prices below cost to attract new consumers, but then subsequently charge these consumers prices well above costs once they are 'locked-in'. This 'bargain then rip-off' pricing pattern is a characteristic of many markets with high switching costs (NERA, 2003).

Under-switching and over-switching

Under-switching errors can occur where a consumer does not switch (perhaps due to high switching costs) despite apparent benefits from doing so. And there could also be "over-switching" errors where a consumer switches despite making losses from doing so. Wilson and Price (2005) identify a third type of error "consumer inaccuracy" when a consumer makes a surplus-improving switch, but makes a mistake in

the choice of destination operator by not choosing the best operator for their requirements (perhaps as a result of search costs).

High switching levels do not necessarily signify that a market is competitive (Gans, 2005a). First, if pricing is unclear and products complex, price differentials and subsequently switching can occur over a long period of time, without the market becoming more competitive. Second, if companies co-ordinate their behaviour to keep prices high, the market will not be competitive, regardless of switching levels. Third, high switching levels can conceal certain undesirable activities, such as mis-selling and slamming.

Conversely, low switching levels do not automatically indicate that markets are not competitive. Indeed, once price differentials have been exhausted through intensive switching, and prices have been driven down to a competitive level, only limited switching may occur. However, in such circumstances, the market is likely to be competitive.

It should also be recognised that consumers who have not switched will not necessarily be worse off. The incumbent provider may happen to offer the best deal for their particular circumstances. Besides, sometimes a mere threat to switch may bring about a better deal from a current provider.

There are a number of reasons why there are concerns about switching costs. One reason is the potential impact of switching costs on reducing consumer flexibility and therefore lowering the pressure that the prospect of a consumer migrating to a competitor exerts. Another is that switching costs have raised the average price level. Another concern is over the structure of prices that can result from switching costs. However, while there may be inefficiencies caused by a 'bargain then rip-off'[13] price structure, it may not follow that there is a basis for intervention on welfare grounds if the average price level over time is unaffected (NERA, 2003). Moreover, rational consumers will have a strong incentive to switch if the "rip-off" prices become too high. But as some research has concluded, consumers may not make rational decisions in regard to switching. Of special concern are those groups of consumers – including less commercially attractive vulnerable consumers – who may be virtually left out of the switching process, because from a suppliers' point of view, it is not profitable to compete for their business.

Influences on switching in telecommunications markets

Underestimating the benefits of switching?

Another reason why some consumers decide not to, or feel unable to switch could be that the perceived or actual level of savings available is considered to be inadequate.

According to research conducted by Ofcom, in the fixed line market consumers indicated that in order to switch they would require savings that are the equivalent to around 75% of their monthly phone bill. This might appear irrationally high. But it might also suggest that consumers find the searching, evaluation and actual switching process difficult and time consuming and thus require the promise of high levels of eventual savings as compensation for the time and effort involved in switching.

Respondents to a National Audit Office survey in the United Kingdom in 2003 appear to confirm this conclusion. When asked whether they would change their fixed line arrangements, either with their existing supplier or by switching to a different supplier, to achieve savings of 10, 25 and 40 %, consumers gave answers that indicated the following:

- At each level, consumers are more likely to look for changes with their existing supplier than change supplier (see Table 3). And even then, the level of savings has to reach 40% before the majority of consumers are 'highly likely' to act.

- A significant minority of consumers are reluctant to change 'at any price' – 32% of consumers would be 'unlikely' or 'highly unlikely' to switch supplier for savings of 40%, and 25% of consumers would not even make changes with their existing supplier.

Table 3. Consumers' motivation to change fixed line telecommunications arrangements in the UK (2003)

Level of saving	Likelihood to change within supplier (%)				Likelihood to change supplier (%)			
	Highly unlikely	Fairly unlikely	Fairly likely	Highly likely	Highly unlikely	Fairly unlikely	Fairly likely	Highly likely
Savings of 10%	23	28	35	14	34	34	25	7
Savings of 25%	17	17	37	29	24	23	38	15
Savings of 40%	14	11	23	52	19	13	26	42

Source: National Audit Office public survey cited in "The Office of Telecommunications: Helping Consumers benefit from competition in the telecommunications market", Report by the Comptroller and Auditor General. HC 768 Session 2002-2003: 11 July 2003.

Ofcom's research (2006b) suggests that the level of perceived savings is generally lower than the significant amounts that consumers say they would need in order to switch. However, it may be that actual savings are in fact higher than perceived savings and consumers are therefore underestimating the savings available to them. Indeed, uSwitch (a service-comparison website) estimates that consumers switching telephone provider via its website save an average of £120 per year on their fixed line calls – with 20% saving more than £170. While consumers using the uSwitch website are unlikely to be representative of the UK population as a whole (they are likely to be higher spenders) this suggests that some consumers may be able to save an average of £10 rising to £14 on their monthly telephone bill (Ofcom 2006b). Consequently, uSwitch's data suggests that consumers may be underestimating the benefits of switching and that actual savings are equal to – or potentially higher than – the amounts that would make consumers switch.

In addition to general consumer inertia and disengagement associated with high levels of complexity in the telecommunications market, low levels of switching may also arise because of explicit practices by operators that hinder consumers from changing supplier.

Switching costs

The number of different factors consumers have to take into account when choosing a mobile telecommunications provider, could create considerable search costs for consumers. This is because the cost and suitability of a particular mobile phone package for a particular consumer depends on a number of factors:

- How much the consumer uses the phone.
- The time of day the consumer makes most of their calls.
- The mobile network used by most of the people they are likely to call.
- The kind of services the consumers want on their mobile (*e.g.* cameras, photo-messaging etc).
- Whether and how much the consumer wants to use the mobile abroad.
- Which networks have "coverage" where the consumer wants to use the mobile.
- Whether the consumer wants to commit to a monthly contract or prefers to pay only for calls.
- Whether the consumer's preferred handset is available on their preferred network.

Compatibility costs

As different mobile operators have different handset ranges, the consumer's choice of a handset restricts their choice of mobile network, or alternatively, choosing a particular network leads to a limited range of handsets if unlocking of SIM cards is not facilitated. This issue is discussed further in the context of SIM locking below.

Change of telephone number. Consumers switching mobile operator who have to change their telephone number face a number of costs. For example, they must inform potential consumers of the number change (in the case of business users) and potentially miss calls from friends and clients. These costs are greater for a business consumer who may have to change stationery and advertising material and may suffer a loss of business due to the number change. In addition, correspondents of the consumer have to change the number in their address book and other database records. They also suffer some inconvenience in terms of misdialling on the old number.

The introduction of mobile number portability (discussed below) reduces these costs. However, the availability of number portability does not completely remove the transaction costs as there can be a delay between the request for number portability and when it is actually implemented. As a result, even with number portability, transaction costs of changing network will still exist.

Contractual costs

Some of the switching costs involved in changing mobile provider are contractual switching costs. Many mobile phones are sold with a minimum 12-month contract during which time the consumer would have to pay an early exit penalty for terminating the contract.

Locked handsets

In several countries consumers may be prevented from keeping their mobile telephone when they switch providers either because of the technologies used to provide mobile services (*e.g.* CDMA) or because of software that locks the SIM (Subscriber Identity Module) card in the handset and may prevent the handsets from being used on a competing network. In the United Kingdom, United States, Australia and most other OECD countries most operators lock handsets to operate only on their network, particularly in the case of pre-paid consumers (NERA, 2003). The purpose of this locking is to ensure that where the handset is subsidised by the operator, the consumer does not purchase a subsidised handset from one provider and then switch to making calls with another network operator at a cheaper rate. Most handsets can be unlocked by means of the network providing the consumer with a code to enter into the handset. If a mobile handset has been locked, the consumer has to pay a fee to unlock the handset before the SIM card of another operator can be inserted. In some countries (*e.g.* France) mobile operators are required to provide, if requested by the customer, the key to unlock SIM cards to subscribers after 6 months of signing-up.

"Lock-in" handsets target consumers' underestimation of the cost of being unable to switch provider, where a more attractive or suitable offer is being offered elsewhere. Further, it may, in some cases be difficult to justify the lock-in clause on cost grounds. In some industries, fixed costs may justify a lock-in clause. It is unlikely, however, that per-consumer fixed costs alone can explain the lengthy lock-in clauses observed in the mobile telephony industry.[14]

Efforts to address barriers to switching for consumers

Number portability

In the US number portability between fixed-to-fixed providers has been in effect since 1997. In 2003, the FCC cleared the way for full local number portability, which allows customers to keep their phone number if they switch from mobile to mobile provider, mobile to fixed provider or fixed to mobile provider. In 2004, the FCC took action to reduce the waiting time consumers experienced to port their number from one provider to another. The introduction of full number portability is an essential aspect of telecommunications competition in the United States.

In an effort to enhance competition and consumer satisfaction, other regulators have introduced mobile number portability (MNP) which allows consumers to keep their mobile number if they switch to another mobile network provider. This is widely regarded as a fundamental prerequisite of open competition and choice in the mobile market, but from the consumers' perspective maintains a barrier between the mobile and fixed markets.

But take-up has been lower than some expected with less than 10% of mobile numbers being ported according to a recent report by Analysys, a consultancy firm (Analysys, 2006). In the United Kingdom, a survey conducted by the National Consumer Council found that switching is quite limited in the mobile telephony market (NCC, 2006). This may be the consequence of high switching levels over the past few years leading to a reduction in current switching potential. Indeed the introduction of MNP was initially expected to result in a surge of competitive activity as carriers sought to seize the opportunity to grow market share by attracting consumers from rivals but this did not occur as much as some expected.

The Analysys report concludes that regulators and operators need to make improvements to current MNP solutions which have significant barriers to consumer take-up, such as high charges for porting a number, long delays before porting takes place, and limitations to data services after number porting. Notably the report concludes that one of the biggest barriers to MNP is that consumers do not realise it is available. It warns that even with the best technical solutions and processes in place, if regulators and operators do not publicise it then it will fail. In the United States, the FCC has gone to significant efforts to make consumers aware of wireless number portability, including developing and making available (in print and on its website) information describing the availability of wireless number portability.

In France, the process for mobile portability (dating from 30 June 2003) was changed as from 21 May 2007. The first change was to implement a one-stop-shop process which allows the customer to request the new operator of choice to implement portability, and the second change is that there is a legal requirement to implement mobile number portability within 10 days to ensure such a switch.

In Japan, mobile number portability was introduced in October 2006 and by the end of March 2007, about 2 million subscribers – out of a total of 97 million – had switched. In Japan, switching can cost up to JPY 5 000 including the new contract processing fee, plus the cost of a new handset[15], since Japanese handsets are network specific. In Korea mobile number portability has been introduced in phases since 2004. By April 2007 the total number of subscribers who had transferred to other mobile operators was approximately 19.2 million. Mobile numbers can be ported very quickly in Korea – between 30 to 60 minutes is required and the fee for porting numbers is very low (approximately USD 0.85).

While subscribers who switch can take their phone numbers with them, they are not able to take their associated e-mail addresses.[16] In Japan, rather than SMS, Internet e-mail is mainly used on mobile phones. Users are easily able to send and receive e-mails through the Internet between a mobile phone and a PC. In

addition, the number of e-mail letters that can be sent and received is essentially unrestricted. Thus, various convenient services are provided to mobile phones in Japan.

Another consideration is that subscribers in Japan must approach[17] their existing operators to be released from their account before signing up with a rival. Nevertheless, most accounts can be switched within a day or two. In Japan, mobile services are convenient for users. A range of mobile content and applications is available and sophisticated mobile phones through service competition among mobile carriers. But services – such as downloadable games, or payment systems – may not be available on a rival network.

In Canada, MNP became available in major metropolitan areas on 17 March 2007. When transferring from a wireless service provider to another wireless service provider, the new voice service should be activated within 2.5 business hours. When transferring from a wireline to a wireless service provider, or vice versa, the service should be activated within two business days.[18]

Even without switching, however, MNP may be resulting in increased benefits to consumers with operators offering incentives to discourage subscribers from switching. The extent of switching is not necessarily an accurate gauge of benefits accruing to consumers as a result of measures to facilitate switching. According to one report loyalty schemes have been strengthened, bigger discounts provided for heavier phone usage, and new handsets have appeared and services have improved too (*The Economist*, 2007).

Mobile portability lead times

The shorter the porting process, the better it is for competition and consumers. Table 4 shows the target maximum lead times in various countries. In Australia, for example, the maximum port lead time is 2 days.

Table 4. Mobile number portability: time taken in various countries

Country	Time to switch to new operator	Target maximum porting period	Porting process
France	4 hour max	30 days (10 days from 21/05/07	Led by recipient (but new process will be one-stop-shop)
Germany		31 days (standard contract termination period)	Led by recipient
Italy	1 hour	5 days (reduced from 15 days target at MNP launch)	Led by recipient
Spain		48 Hours	Led by recipient
United States	2.5 hours	14 days	Led by recipient
Australia	3 hours	2 working days	Led by recipient
Austria		3 working days	Led by recipient
Belgium		2 days	
Croatia		5 days	
Cyprus		14 days	
Estonia		7 working days	
Finland		5 working days	Led by recipient
Hong Kong (China)		36 hours (was 48 hours until 2004)	
Hungary		14 working days	
Iceland		10 days	
Ireland	2 hours for a single line/ 8 hours for multi line ports	24 hours from request	Led by recipient
Lithuania		28 days	
Netherlands		4 working days (was up to 3 weeks until 2004)	Led by recipient
Norway		7 days	Led by recipient
Portugal		5-20 working days	
Singapore		7 days	
Slovenia		5 working days	
Czech Republic	5 hours	14 days	Set by legislation, led by recipient
Sweden		5 working days	
Switzerland		5 working days	
United Kingdom		5 working days	

1.Note by Turkey: As regard to the Cyprus question, Turkey reserves its position as stated in its declaration of 1 May 2004. The information in the report under the heading Cyprus relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC).

2. *Note by all the European Union Member States of the OECD and the European Commission:* The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this report relates to the area under the effective control of the Government of the Republic of Cyprus.

Source: IML Research, Ovum 2005. Reported in Ofcom, "Review of General Condition 18 – Number Portability", Consultation 16 November 2006, p. 80-81.

Broadband Internet switching issues

An important characteristic of a competitive broadband market is the ability of consumers to switch between broadband service providers. In the United Kingdom, a study on this issue concluded that many consumers have found it difficult to switch between broadband suppliers or to move home without experiencing problems. Some consumers reportedly lost their broadband service for several weeks, or were given confusing and contradictory information about what they needed to do to migrate to another ISP (Ofcom 2006c).

Over the course of 2005, Ofcom noticed an increase in the number of consumers contacting the Ofcom Contact Centre (OCC) about issues relating to migration between broadband service providers. The largest source of complaints was about tag on line. "Tag on line" is a term used to describe a situation where a consumer cannot order broadband because there is (or appears to be) another broadband service provider already providing broadband on that line, or there is an incompatible product on the line. Tag on line affects people moving house, consumers who want to switch broadband service providers but have not used the MAC process,[19] and even consumers ordering broadband for the first time.

The next biggest source of consumer complaints to Ofcom's Contact Centre was about the MAC process. The most frequent complaint in this regard was that a broadband service provider had failed or refused (for various reasons *e.g.* because the consumer is still bound to a contract, or because the consumer owes it money) to issue a MAC at the consumer's request.

To address these problems Ofcom decided to introduce General Condition 22 which consists of two elements: a requirement on all Communications Providers to comply with the MAC process; and where the MAC process does not apply, a requirement on all Communications Providers to comply with a number of high-level obligations designed to address consumer harm associated with broadband migrations.

Bundling

Bundling offers a number of important benefits to consumers. These include:

- The combined cost of purchasing the bundle from one provider is often less than buying the products individually.

- The convenience and streamlined procedures associated with having contact with only one provider in terms of billing, payment, and consumer service which lower consumer transaction costs.

- Bundling removes the need to choose between service providers and product combinations, thus in one sense simplifying the consumer's purchase decision.

Some new services only become possible by buying bundled packages (for example, converged fixed/mobile telephony). However, in some situations, bundled services can make it more difficult to switch and lead to consumer detriment. For instance, once consumers have signed up for a bundled offering it is usually difficult to switch since the offers may lock in consumers *e.g.* for one or two years and impose financial penalties on consumers who wish to exit the contract earlier. Moreover, the cost involved in switching provider for a single part of the bundle could be a strong disincentive. For example, switching broadband generates significant costs since the e-mail address is not portable and has to be changed and for businesses and some individuals this may be a significant deterrent to switching.

It is also often difficult to compare bundled packages offered by alternative service providers since most packages involve different combinations of services, service features and terms and conditions. Moreover, operators can also use bundling to complicate and obscure their pricing. Prices are obscured because consumers do not always understand the relationship between the bundle price and a price for each component. This can lead to consumers being confused by the different varieties of bundles and therefore not choosing the products that best meet their needs. For example, in the United States bundled services typically include unlimited local, local toll, and long distance services at a single flat rate. This can make it difficult for consumers to compare that single rate to the sum of the rates of the components because the components (especially long distance and local toll service), when sold as stand-alone services, are usually sold on a usage (rather than flat rate) basis. Further, confronted with a huge array of complicated bundles

from different operators, consumers are disposed to stay with the operator they are accustomed to despite the possibility of better offers being available elsewhere.

Finally, bundling can force consumers to buy elements that either they do not need, or that do not match their desired specifications. This is because it may not be possible (or may be too confusing) for consumers to specify what services they wish to be bundled as part of their preferred package.

Information derived from questionnaire surveys has indicated that consumers are only moderately satisfied with their bundling arrangements. An Australian survey found that among small business consumers 81% were satisfied with their bundled packages, whereas among residential consumers, 78% were satisfied. Consumers who were dissatisfied with bundling arrangements found comparing services from different bundled service providers more difficult than comparing services from different fixed line or mobile service providers. For instance, only 6% of small business respondents considered it easy to compare bundled packages between different service providers. (ACA, 2004a)

4. EVIDENCE OF ACTUAL CONSUMER BEHAVIOUR IN TELECOMMUNICATIONS MARKETS?

Consumer behaviour in telecommunication markets

Switching patterns provide an important indicator that the demand-side of a market is well-developed and consumers sufficiently empowered to participate actively. The motivation to participate is generally a function of consumers' estimate of the performance of their existing supplier; and whether or not they believe there are better alternatives available from other suppliers on the aspects of service that matter to them. If the market is perceived to be undifferentiated and/or if their current supplier is perceived to be the best on the market on the criteria that are important, there is no expected benefit from switching (Ofcom 2006b).

It is important to note, however, that switching is not the only measure of a vibrant demand-side nor is switching necessarily always in consumers' best interests. The decision to engage in co-ordinated information gathering that will support the decision to switch or not to switch is also important. If a consumer is satisfied with his/her current provider, switching is not necessarily an improvement. Moreover, choosing a new service does not necessarily mean switching provider.

This section examines the available evidence of consumer behaviour and satisfaction levels in the telecommunications industry and of influences on such behaviour. In general, satisfaction surveys need to be treated with some caution in that results may vary widely according to how, and in what context, a question is formulated. For this reason, it is useful to analyse consumer satisfaction surveys side by side with consumer complaints data, where available, to get a fuller picture of the market.

Consumer behaviour in the fixed line market

United Kingdom

Ofcom's research found that in the United Kingdom, although the majority of consumers in the fixed line market have not considered changing their supplier, they have 'participated' in other ways. This research identified the following four 'participation' segments that are common across fixed line, mobile and Internet telecommunications markets:

- Inactive consumers (those who have had *no past involvement* at all other than possibly thinking about getting involved and have *low interest in the market)*.

- Passive consumers (those who *may have had some past involvement* and have *some current interest* in the market).

- Interested consumers (those who have had little past involvement are *more likely to keep an eye on the market* and *act on their future intentions*); and

- Engaged consumers (those who are t*he most active group* in terms of past behaviour, interest in the market and future switching intentions).

One in three (34%) of the fixed line consumers surveyed had changed the supplier providing their home fixed line service in the last four years (including decisions to move from a single provider to split providers for calls and line rental). However, two-thirds (66%) had not switched in this time period and the majority (52%) had not even considered doing so. Regardless of whether or not they had switched supplier in the last four years, 34% had made some change to their existing service with their current supplier in this time period. A similar proportion claimed to keep an eye on the market: around a third (36%) agreed that they were always on the look-out for a better deal and a similar proportion (31%) agreed that they made a conscious effort to keep up-to-date with what other providers were offering.

Factors influencing participation in the fixed line market

According to Ofcom's research, 86% of fixed line consumers in the United Kingdom were satisfied with their overall experience with their current supplier: almost half (46%) were very satisfied and a similar proportion (40%) were fairly satisfied.

According to consumer responses to Ofcom's questionnaire surveys, the greatest deterrent to shopping for an alternative fixed line supplier was the possibility of getting locked into a contract with a new supplier: two-thirds of consumers (67%) agreed that they would be put off by this. The second greatest barrier to switching was reluctance to leave a known and trusted supplier for one that was unfamiliar – stated by 65% of consumers. In the fixed line market, many consumers have been with their supplier for many years. For some consumers, their relationship with their fixed line supplier was perceived as being more important than whether they could get a better deal elsewhere. Because of the "endowment factor" (a factor influencing consumer behaviour that is underlined by behavioural economics, as noted earlier), these consumers would only switch if they had experienced a serious betrayal of trust, that incites a 'revenge value' to switching. As many as one in two (53%) fixed line consumers agreed that they had a strong sense of loyalty to their existing supplier (Ofcom 2006b).

The process of switching was itself likely to discourage around half of those consumers surveyed: 56% agreed that shopping (searching) for a new supplier was too much hassle, 52% agreed that it was difficult to make comparisons between suppliers and 49% agreed that they did not have enough time to research the options. For a similar proportion (46%) there is concern that there is a reasonable degree of risk that something will go wrong in the transition, potentially leaving them without service altogether. Moreover, the majority (58%) perceived that the gain would be only short term because all the suppliers tend to follow each other.

No significant differences were detected between demographic groups. In other words, for fixed line consumers the differences are driven by differences in attitudes and behaviour rather than by differences in demographics.

In summary, Ofcom concludes that in the fixed line market, in the face of an undifferentiated market (perceived or actual), inactive consumers are adopting fallback, risk-averse strategies and will stay with what they know and trust, even though it might not be the best rational option. This appears to support the

arguments of behavioural economics. Ofcom's findings suggest that the greatest chance of furthering participation in the fixed line market are efforts to help consumers to overcome their inertia, by allaying fears regarding the potential risks associated with switching services, or by educating them regarding the tangible benefits of any new service over and above their existing arrangement (Ofcom 2006b).

Sweden

Information about switching activity in Sweden appears to be broadly consistent with the UK experience. In Sweden as of the end of 2005, just over 19% of the total number of telephone subscriptions were provided by an operator other than Telia Sonera (the incumbent), which is an increase of 17% from 31 December 2004 (Swedish National Post and Telecom Agency 2005).

Portugal

In Portugal, as of the end of 2006, more than 21% of the total number of telephone subscriptions were provided by an operator other than Portugal Telecom (the incumbent), which is an increase of nearly 11% from 31 December 2005 (Anacom, 2006). But the level of switching in Portugal's fixed line market has also been relatively low. Table 5 indicates that about two-thirds (64%) of consumers interviewed as part of an Anacom (the telecommunications regulator) study were satisfied with the prices charged by their fixed network provider. This degree of satisfaction with a key aspect of service would clearly reduce the disposition to switch.

Table 5. Degree of satisfaction towards fixed line prices in Portugal

Very satisfied	5.8%
Satisfied	58.2%
Not satisfied	29.5%
Not satisfied at all	4.1%
NA	2.5%

Source: Anacom, "Electronic Communications Consumer Survey, February 2006 – Key Findings", May 2006.

Consumer behaviour/switching in the mobile telecommunications market

United Kingdom

Ofcom found that more than a third (36%) of mobile telecommunications consumers in the United Kingdom had changed their mobile phone network supplier in the last four years. The figure rises to 52% for those who are on an annual contract and falls to 29% for those who are on pre-pay packages. However, two-thirds (66%) had not switched in this time period and the majority (53%) had not even considered doing so. Even among the 7% who had considered switching, not all had actively started looking for an alternative.

Ofcom pointed out that although the majority of consumers in the mobile phone market have not considered changing their supplier, they are 'participating' in other ways. 32% had made some change to their existing service with their current supplier during this time period. While consumers were far more likely to change the tariff or package they were on (31%) than ask their supplier to match a better deal they had seen elsewhere (8%), mobile phone users seemed aware of their potential to negotiate. 62% of those on contracts had changed their existing tariff/package and 16% had attempted to renegotiate their package/deal. Around a third of all consumers claimed to keep an eye on the mobile phone market. 32% agreed that they were always searching for a better deal and 28% agreed that they made a conscious effort to keep up-to-date with what other providers were offering.

Ofcom's research disclosed that in the United Kingdom engaged consumers were significantly more likely to be younger and male (*i.e.* early adopters) and Inactives tended to be older consumers on pre-pay packages (who tend to spend less). However, Ofcom concluded that the degree of consumer engagement with the market is better explained by differences in attitudes and behaviour rather than by differences in demographics.

Factors influencing participation

Price and interest in technology stood out as clear drivers of consumer participation in the Ofcom studies. The majority (at least 85%) of all consumers in this market agreed that the low cost of their service and overall value for money were very important to them. Consumers classified as "interested" and "engaged" consumers were significantly more likely to make this claim (97% and 98% respectively). With respect to technology, the majority (88%) of "engaged" mobile phone consumers were willing to spend time looking at all the options to make sure they got the best one for them (compared to 42% of inactive consumers) and they were significantly more likely to be early adopters (37% and 8% respectively).

In terms of reasons given for not switching, more than half the telecommunications consumers surveyed (54%) said that they were very satisfied with their overall experience with their current supplier and another third (36%) said that they were fairly satisfied. Post-pay and pre-pay consumers were equally satisfied with their current network supplier.

The research also identified a range of procedural and psychological barriers perceived by mobile telecommunications consumers (see Table 6). The greatest deterrent to shopping for an alternative mobile phone network supplier was the possibility of getting locked into a contract with a new company: around two-thirds of consumers (68%) agreed that they would be put off by this.

Reflecting a similar sentiment, the second greatest barrier to shopping was reluctance to leave a known and trusted supplier for one that was unfamiliar, an issue for 64% of consumers. This refers to the extent to which consumers value their relationships with their mobile phone network supplier. More than one in two (55%) agreed that they had a strong sense of loyalty to their existing network supplier. This was particularly the case for inactive consumers of whom 39% were likely to be 'relational' people (with a preference for using trusted brands known or recommended to them) and only 14% likely to be 'transactional' people (willing to consider unfamiliar brands if they offer a good deal). This manifestation of the 'endowment factor' and 'irrational' fear of changing to a new provider are consistent with the arguments of behavioural economics.

Lack of confidence, heuristics, and information overload also appeared to play more of a role in decision-making among inactive consumers. 48% did not feel they knew enough to make the right choice and 42% expressed concern about "appearing stupid in front of sales staff". 44% were willing to accept a solution that they felt was 'good enough' rather than investigate all options to find the 'best' one (17%).

Table 6. Perceived barriers to shopping and/or switching mobile phone suppliers in the UK

Response to Question (with prompted reasons): "I did not switch my mobile phone supplier because...":					
Reason	**Agree %**	**Strongly agree %**	**Total agree %**	**Post-pay %**	**Pre-pay %**
Don't want to get locked into contract with new provider	**47**	**21**	**68**	**47**	**52**
Reluctant to leave provider I trust for one I don't know	**47**	**17**	**64**	**52**	**59**
Strong sense of loyalty towards current provider	**36**	**19**	**55**	**No difference**	
Shopping for new provider too much of a hassle/chore	**41**	**12**	**53**	**41**	**49**
Only short term gain as providers follow each other	**43**	**9**	**52**	**No difference**	
Difficult to make comparisons b/w providers	**38**	**9**	**47**	**35**	**53**
Don't have time to research options	**38**	**9**	**47**	**34**	**54**
Don't want to lose current deal/package	**32**	**14**	**42**	**No difference**	
Big risk that something will go wrong in transition	**30**	**7**	**37**	**No difference**	
Don't know enough to make right choice	**28**	**9**	**37**	**27**	**42**
Bound to feel stupid/out-of-date when I talk to sales staff	**21**	**12**	**33**	**24**	**37**
No difference in cost of supplier	**28**	**4**	**32**	**27**	**33**
No difference in quality of supplier	**26**	**3**	**29**	**23**	**32**
Don't know where to find trusted info about options	**21**	**5**	**26**	**No difference**	

Note: Base: All mobile (500). Percentages represent share of total sample.

Source: Ofcom, 2006b.

In this market, consumers on contracts may also be bound to their suppliers as a result of having negotiated or been given special deals: two fifths (42%) of consumers expressed concern about losing the package or deal they were on. Early exit penalties could also apply.

The process of shopping was itself likely to discourage around half of the consumers surveyed: 53% agreed that shopping for a new supplier was too much hassle, 47% agreed that it was difficult to make comparisons between suppliers and 47% agreed that they did not have enough time to research the options. Moreover, the majority (52%) perceived that the gain would be short term because all the suppliers follow each other. As Table 6 indicates, this is particularly the case among pre-pay consumers, who perceived higher barriers to shopping than those on contracts: 82% of pre-pay users agreed they did not want to be locked into contracts with a new provider. They were also significantly more likely to regard shopping for a new network supplier as an onerous process, approaching it with lower levels of interest and confidence than contract users.

In summary, Ofcom concluded that the evidence suggests that in the UK mobile telecommunications market, in the face of complexity and lack of market differentiation (perceived or actual), inactive consumers will stay with what they know and trust, even though it might not be the 'best' option. Ofcom concluded that the greatest chance of furthering participation in the mobile phone market is through efforts made to influence these key drivers, for example by educating them in regard to the tangible benefits of any new service over and above their existing set-up, by making the switching process easier or by helping consumers to overcome their inertia.

Portugal

In Portugal, Table 7 indicates that of those mobile telecommunications consumers responding to a survey conducted for Anacom, about 19% have switched. Of these, about one-third switched because "most of my contacts are clients of the new operator" and presumably there was some advantage with being on the same network such as network coverage and/or discounted or free calls to customers on the same network, Another one-third of those who switched did so because they were "unhappy with prices" of their old operator. 13.7% of those who switched did so because they were unhappy with the quality of service provided by their old operator and 8.6% because of an offer from the new operator.

Of the 80.7% who had never changed their operator, 66% were satisfied with the current operator, and 31.2% because "most of my contacts are clients of current operator". Only about 10% of consumers seemed focused on price as a driver of switching and even less (about 4%) on quality of service.

Table 7. Switching mobile telecommunications operator in Portugal

Have already changed operator	**19.3%**
Most of my contacts are clients of new operator	34.6%
Unhappy with prices	33.3%
Unhappy with quality of service	13.7%
Offer from new operator	8.6%
Other	20.6%
Never changed operator	**80.7%**
Satisfied with current operator	66.2%
Most of my contacts are clients of current operator	31.2%
Offers the best prices	6.6%
Switching is too complicated / inertia	3.2%
Decision of another person	2.8%
More / better network coverage	0.8%
Keep the same number	0.4%
Other	4.0%
Don't know / Didn't respond	2.3%

Source: Anacom 2006.

Australia

The results of a questionnaire survey in Australia for ACMA (the telecommunications regulator), summarised in Table 8 provide some additional information on consumer satisfaction.

Table 8. Consumer satisfaction with telecommunications services in Australia, 2004 to 2006

Respondents were asked 'In the last 12 months, how well have each of the following service providers met your overall expectations?' Excludes 'no answer' and 'doesn't apply'								
	Exceeded my expectations		Mostly met my expectations		Sometimes met my expectations		Rarely met my expectations	
	July 2004-June 2005	July 2005-June 2006	July 2004-June 2005	July 2005-June 2006	July 2004-June 2005	July 2005-June 2006	July 2004-June 2005	July 2005-June 2006
Local telephone company	7.8%	8.2%	73.9%	73.3%	13.3%	13.5%	5.0%	4.9%
STD telephone company	7.0%	7.5%	75.4%	74.7%	12.9%	13.2%	4.7%	4.6%
International telephone company	7.4%	7.1%	73.5%	74.3%	13.7%	13.4%	5.5%	5.3%
Mobile phone service provider	**9.4%**	**9.9%**	**72.5%**	**72.1%**	13.1%	13.4%	5.0%	4.6%
Internet service provider	10.2%	11.2%	68.6%	68.9%	15.6%	15.3%	5.5%	4.6%

Source: Roy Morgan Research, questionnaire survey sample of approximately 23 000 people aged 14+ years, cited in ACMA (Australian Communications and Media Authority), 2006

During the July 2005 to June 2006 period satisfaction levels (defined as 'exceeded' or 'mostly met expectations') were more than 80% for mobile telecommunications providers as well as fixed line and Internet service providers. The highest satisfaction levels were for long distance (STD) fixed line telephone companies (82.2%). Internet service providers were the providers who most exceeded expectations (11.2%).

Consumer expressions of the "likelihood" of them switching service provider offer another measure of consumer dissatisfaction with their current provider. The Australian survey also provides some information in this regard, summarised in Table 9. The likelihood of consumers switching service provider ranged from: about 13.5% for fixed line providers, 14% for mobile telecommunications providers and 16.5% for Internet service providers during the period July 2005 to June 2006. The remainder of consumers said they were either 'unlikely' or 'neither likely nor unlikely' to switch providers.

Table 9. Consumer likelihood to switch providers in Australia, 2004-2006

Respondents were asked 'How likely would you be to switch companies, if you were able to buy that service from another company?' Excludes 'no answer' and 'doesn't apply'						
	Very or fairly likely to switch		Neither likely nor unlikely to switch		Very or fairly unlikely to switch	
	July 2004-June 2005	July 2005-June 2006	July 2004-June 2005	July 2005-June 2006	July 2004 June 2005	July 2005-June 2006
Local telephone company	13.5%	13.2%	29.2%	27.9%	57.3%	58.8%
STD telephone company	13.0%	12.8%	29.8%	28.3%	57.2%	58.9%
International telephone company	11.8%	11.5%	30.7%	29.1%	57.5%	59.5%
Mobile phone service provider	14.5%	13.9%	29.2%	28.2%	56.4%	57.9%
Internet service provider	16.8%	16.5%	30.6%	28.3%	52.5%	55.2%

Source: Roy Morgan Research, questionnaire survey sample of approximately 23 000 people aged 14+ years. Cited in ACMA (Australian Communications and Media Authority), *2006*.

United States

A US report based on responses to a questionnaire survey in 2005 from 1 000 households found that 36% of respondents replied that early termination fees (ranging from USD 150-USD 240 as shown in Table 1) had dissuaded them from switching (CALPIRG Education Fund, 2005).

Table 10. Early termination fees of major US mobile telecommunications service providers, July 2005

Company	Early termination fee
Cingular	USD 150
Nextel	USD 200
Sprint	USD 150
T-Mobile	USD 200
Verizon	USD 175

Note: These operators control about 80% of the US mobile telecommunications market.

Source: CALPIRG Education Fund, 2005.

Eighty-nine percent of mobile telecommunications consumers considered that early termination fees are designed to prevent consumers from switching. They disagreed with the mobile telecommunications operators' position that the termination fees are a necessary part of the rate structure (to enable them to recover the costs of subsidising handsets, 'buckets' of free calls, etc).

In the United States, the FCC undertakes consumer education campaigns to educate Americans about their options in the telephony market, including the opportunity to switch to operators that may serve them better. There are FCC consumer fact sheets explaining common billing problems, answering basic technical questions, and highlighting the expectations consumers should have of their operators. Further, the FCC has an extensive telephone call-in and e-mail centre which fields thousands of complaints every quarter. As of the third quarter of 2006, for wireline telephony, the most common complaints were about unsolicited calls and faxes; for wireless telephony, the most common complaints were about billing. On the basis of these collected complaints, the FCC can take action against licensees. In addition, there are a variety of for-profit websites which help consumers choose among different plans, such as ***www.letstalk.com*** and ***www.myrateplan.com***. Finally, there are third parties organisations that report on service quality such as J.D. Powers & Associates and Consumer Reports.

Consumer behaviour in the Internet Market

United Kingdom

According to Ofcom's research awareness of alternative suppliers is lowest in the Internet market with around 20% of Internet consumers in the United Kingdom unable to spontaneously name any narrowband or broadband Internet service providers (ISPs) in their area. Half of Internet consumers were spontaneously aware of two or more narrowband suppliers, and this rises to 74% when prompted (Ofcom 2006b).

Just over one quarter (28%) of UK consumers have ever switched their ISP supplier – 18% having changed supplier more than 12 months ago, and 9% more recently. These are lower levels than for fixed or mobile services, perhaps reflecting the earlier stage of development for Internet/broadband services. Just over a quarter (28%) of the Internet consumers surveyed had changed the supplier providing their household's Internet connection in the last four years. However three-quarters (72%) had not switched in this time period and the majority (46%) had not even considered doing so. Even among the 13% who had considered switching, not all had actively started looking for an alternative.

Ofcom found that regardless of whether or not they had switched ISP in the last four years, almost three-quarters (72%) had made some change to their existing service with their current ISP in this time period. This was mainly the result of consumers switching connection type (62% had done this) and/or switching tariff, including upgrades to connection speed (53% had done this). Few (10%) had re-negotiated their deal (*i.e.* asked their current ISP to match a better deal they had seen elsewhere). Thus, even though the research shows that many consumers in the Internet market have not considered changing their Internet service provider (ISP), competition had allowed them to 'participate' in other ways.

Compared with broadband users, narrowband users were significantly less likely to have made any changes to their existing package: 24% had changed connection type and 25% had changed their tariff or package.

Factors influencing participation

According to Ofcom's research, the greatest deterrents to active participation include the possibility of getting locked into a contract with a new supplier (68% of consumers); reluctance to leave a known and trusted ISP for one that was unfamiliar (63% of consumers); and perceived efforts of shopping around, including difficulty in making comparisons between ISPs (44%); and not enough time to research all the options (40%). The main drivers of participation include interest in technology and desire for low cost and/or willingness to consider unfamiliar brands if offered a good deal. Interestingly, there were few demographic differences between the four 'participation' segments, suggesting participation is influenced by attitudes and behaviour rather than by differences in demographics.

This evidence suggests that in the face of complexity (perceived or actual), inactive consumers are adopting fallback, risk-averse strategies and will stay with what they know and trust, even though it might not be the 'best' option. This is consistent with the argument of behavioural economics that an "endowment factor" will serve to influence decisions in favour of the present provider.

5. IMPLICATIONS FOR CONSUMER POLICY AND REGULATION

Underlying principles for policy and regulation

A number of principles to guide policy development and regulation are receiving widening acceptance in OECD countries. One is that intervention should be the minimum necessary, justified only when the

market has not responded (through self-regulatory measures for example[20]) or is unlikely to respond in a manner that adequately addresses the issue within an appropriate timeframe. Moreover, intervention may not be justified if consumers are aware of the risk, can respond to it relatively easily and at little cost, but fail to do so, since this could suggest that consumers view the detriment as insignificant. Another principle is that even if the market is unlikely to eliminate or reduce the problem, intervention is warranted only if the resulting benefits significantly exceed the costs of intervention.

These guiding principles are in accord with those espoused in the OECD report on "Guiding Principles on Regulatory Quality and Performance" which suggests that that new and existing rules and regulations should be reviewed on the basis of their effects on competition and efficiency (OECD, 2005).

Some practising regulators endorse these principles in considering the need for consumer protection measures. For instance, the Australian Communications and Media Authority's approach to regulation is in accord with these principles (ACMA 2006): "An ongoing challenge for consumers is to analyse the substantive differences between ostensibly similar products and pricing plans being offered by suppliers. However, before a decision that government/regulators intervene in the interests of consumers, there should be consideration of the frequency and degree to which information is imperfect, the implications this has for competition, and whether government intervention is likely to correct the situation more optimally or more rapidly than the market, and whether the benefits of intervention exceed the costs of doing so."

However, it is often difficult to calculate costs and benefits in order to ascertain net outcome. The difficulty is compounded when some consumers gain while others lose. In this case, judgements about the desirability of the net outcome may require the application of "distributional weights". But predicting and evaluating/ weighting these distributional effects and their impacts is notoriously difficult and contentious.

A more conservative approach may be to require a "no harm" approach to regulation. That is, a regulation could be acceptable if it helps the uninformed or undisciplined, without imposing costs on others *e.g.* those who are sophisticated and disciplined. A stronger case would have to be made for interventions that do not pass such a test. In reality, there may not be many cases without any losers. For instance, in cases where cross-subsidies are unwound by such regulation, those who have previously benefited from the cross-subsidies will lose. Interventions that involve some losses to particular consumers would need to be evaluated on broad cost-benefit criteria that weigh the costs to the losers against the benefits to the winners (OECD, 2006).

Another rationale for intervention to protect those who are less informed or less sophisticated is so-called "asymmetric paternalism". Such intervention is relevant not only when failure results from behavioural biases but also more generally when failure results from information deficiencies (Camerer *et al.*, 2003).

An important insight provided by behavioural economics is that often only some groups of consumers (or all consumers but only in particular circumstances) are likely to be at risk. This highlights an important policy consideration, namely whether policy initiatives to protect particular groups of consumers (such as undisciplined or unsophisticated consumers) may impose such costs on not-at-risk consumers that aggregate welfare or well-being is reduced. To avoid this, cost-benefit analysis could be used to evaluate alternative policy initiatives. Does a policy initiative that can protect the at-risk group of consumers generate sufficient benefits to more than offset any likely costs that will be imposed on other groups in society? If so, then policy intervention may be reasonable. Of course, there may be other policy considerations that will impact upon the decision to intervene in a market (for example, the extent or degree of harm), and thus impact whether that decision is reasonable (OECD 2006).

This section examines a number of specific policy issues raised by the examination of the market in the previous sections. Where appropriate, it suggests further steps that could be taken by regulators and the industry to address these issues. Although the issues and corresponding recommendations are organised into different categories, it should be noted that many of these categories overlap. So, for example, the issue of switching is addressed in a separate category but will also be influenced by issues relating to awareness raising, information disclosure, contract terms and behavioural traits addressed in other categories.

Policy and regulation to address consumer detriment resulting from imperfect information

Increase awareness of alternative suppliers

The majority of consumers seem aware of alternative providers of communications services. In those areas where knowledge and understanding is lower, growing competition is expected to lead naturally to an increased awareness of alternative providers. Nevertheless, where the market is not doing so or is unlikely to do so, there is a clear role for regulators to assist consumer participation by raising awareness of the availability and tangible benefits of different services. Consideration may need to be given to how these kinds of educational campaigns could be tailored, in both their message and distribution channel (*e.g.* a leaflet, consumer hotline or web based programmes) to different groups of consumers to provide them with practical guidance to quickly identify the most suitable/cheapest telecommunications plan.

Furthermore, steps could be taken to make comparisons across providers easier, thereby reducing search costs of consumers and facilitating the switching process. For example, regulators could work with the fixed line and the mobile network operators to develop and publicise a set of comparable indicators relating to quality of service. Monitoring the quality of service of mobile telecommunications providers and making this information available could also help consumers compare signal strength, dropped call counts and dead zones across providers. Furthermore, regulators could encourage third parties, including consumer organisations, to provide price/service-comparison facilities through radio, consumer hotlines, websites, etc.

Regulation of information disclosure

More information is usually seen to be desirable. So it may be sensible to begin with a reminder that as a remedy for market failure, information disclosure may have its limits. A demand-side "behavioural" perspective warns that if consumers have limited cognitive abilities, either generally or in a particular situation, then adding more information may result in information overload and hence in worse decision making. Excessive disclosure can confuse consumers (as evidenced in the case of mobile phone and Internet tariffs options) and can also discourage firms from providing useful information through their advertising. In these cases, the need is not for *more* but for better (perhaps less) information in a structured easily comprehensible format (Gans 2006b). There is need for rigorous analysis of the cost and benefits associated with alternative remedies before any government action is justified. Where feasible, such analysis should be empirically based (OECD 2007).

Typically, a mandated disclosure is intended to improve the information received by the less-informed buyers to a greater extent than by those more sophisticated consumers who may already possess and be able to process the requisite information. But the reverse can also be the case where it is the more sophisticated (and more cognitively capable) consumers who can make more use of the information contained in a mandated disclosure. For example, mandating information on broadband download speeds and caps can be of far more use to those consumers who have at least a basic knowledge of technical features of broadband capacity (*e.g.* bits per second).

Differences in the incidence of benefits from a mandated disclosure mean that any costs could tend to be differentially imposed as well. Some consumers may be provided with information they cannot use, some may be provided with information they do not need, and some others will be overloaded with information, but all will have to pay for the compliance and related costs (OECD 2006).

This cautionary note aside, there are many situations where an information disclosure remedy is necessary and appropriate. Even in competitive markets, suppliers may possess power over consumers, if consumers are not well informed about products, supply conditions and/or alternatives and feel unable/unwilling to switch between these alternatives. Providing consumers with more and better information, for example, through mandatory disclosure or through third party certification may facilitate more active participation in the market and wiser decision-making. Mandatory requirements also hold suppliers accountable, especially in cases where failure to comply with the requirements results in an enforceable action.

In the United Kingdom, in all three telecommunications markets (fixed line, mobile and Internet), respondents to questionnaire surveys indicated that availability of information to calculate the cheapest supplier based on their usage profile was important in influencing their switching decisions (Ofcom 2006b). Information disclosure can take many forms. In the United Kingdom, websites of the fixed line suppliers were the highest claimed source of information (42%), followed by recommendations from friends / family and brochures / promotional literature both of which were used by around a third of all switchers (Ofcom 2006b). Of all the information sources consulted, word-of-mouth recommendations were regarded as being the most trusted source (28%), and also the easiest to understand (22%). The supplier websites were regarded as the most informative sources (with 24% of switchers agreeing that this was the case).

To remedy information deficiencies, a regulator should consider whether to furnish the missing information itself, to encourage the industry to provide the necessary information or, if necessary, oblige the industry to disclose it. Because of information asymmetry, the regulator will need to seek the co-operation of the regulated sector and, to some extent, should also depend on self-regulation and co-regulation.

Contracts and advertising materials

Particular attention is needed to ensure accurate disclosures in the pre-contractual phases and to the clarity of contract terms themselves. Regulators could require all mobile telecommunications operators to use contracts and marketing materials that clearly spell out the terms of the contract in an easy-to-read, standardised format.[21] The disclosures could include:

i) Rate information, including monthly base charge, per-minute charges for minutes not included in the plan, the method for calculating minutes charged, late payment penalties, and other usage fees.

ii) Plan details, including a breakdown of weekend/daytime, nights/weekend, long-distance, roaming, incoming calls, and directory assistance.

iii) Termination and start-up fees, as well as the termination dates for the trial plan and contract.

iv) Taxes and surcharges.

Billing

Telecommunications billing issues are a frequent source of consumer confusion and disempowerment. A number of OECD countries have taken steps to address this issue and establish rules for service providers regarding the provision of billing information. For example, in 1999, the Federal Communications Commission (FCC) released the *Truth-in-Billing Order* to address growing concerns relating to billing and an increase in the number of entities willing to take advantage of consumer confusion in this area. The truth in billing principles which have been established apply to all carriers, including wireless carriers and generally require: *i*) that consumer telephone bills be clearly organised, clearly identify the service provider, and highlight any new providers; *ii*) that bills contain full and non-misleading descriptions of charges that appear therein; and *iii*) that bills contain clear and conspicuous disclosure of any information the consumer may need to make inquiries about, or contest charges on the bill.

Where not already in place or where alternative measures have not been pursued, these kinds of "truth in billing" measures should be encouraged by regulators. With respect to mobile telecommunications bills, roaming charges which are complex and not well understood by consumers should be clearly itemised on the bill identifying the date and location of the call.

Consumer rights education

An important element of consumer empowerment is educating consumers on the rights that they have in the telecommunications marketplace and how to exercise those rights. In Canada, for example, the Canadian Radio-television and Telecommunications Commission (CRTC), the federal body responsible for regulating telephone service, issued a decision establishing a statement of consumer rights in order to assist consumers in making informed decisions and benefiting from competitive markets.[22] According to the decision, incumbent local exchange carriers are required to regularly disseminate to consumers the most current statement of their rights using a variety of different information channels. Likewise in the United States, the Californian Public Utilities Commission has proposed to develop a comprehensive set of consumer education materials on consumer rights topics.[23] These initiatives provide a useful illustration of the type of approach that could be taken by other regulators to ensure that consumers are made aware of their rights vis à vis service providers.

In the United States, the FCC keeps up to date a roster of over 150 consumer fact sheets in over a dozen languages on topics of common complaint from Americans. In addition, a large staff of operators field questions from the public. A quarterly report publishes the types of complaints which are dealt with by this Consumer Center. Furthermore, members of the public can request an FCC speaker to brief them on issues of concern to consumers.

Regulation to remedy market problems resulting from behavioural biases

Just as informational problems may be multi-faceted, so too may problems that result from behavioural biases. It is important for policy and regulation to recognise these biases and develop a fuller understanding of the needs and motivations underlying consumer behaviour in telecommunications markets.

Not all behavioural biases lead to consumer detriment. For the most part they do not lead consumers to depart significantly from optimal decisions. Public policy should be concerned only with those biases that lead to significant detriment. When markets fail because of such costly biases, remedies should be shaped accordingly. For example, a situation of choice or information overload could be aggravated by a requirement for more information disclosure. Rather, the appropriate intervention may involve re-framing the information that is available to consumers in a way that makes choice easier (OECD 2007).

Behavioural economics predicts that for various reasons some consumers (or consumers in some circumstances) may act in ways that are inconsistent with their "ex ante" preferences. Consumers may use information in ways not predicted by neoclassical theory or they may, for various reasons, not use available information. Thus, while in some cases providing more information or providing information in a different form may remove or reduce the risk to consumers, this will not always be the case. If it is to be effective, an effort to inform consumers must appreciate how people actually think. The behavioural response to identical pieces of information will depend on how they are presented and framed (OECD 2006).

Thus, in circumstances where the conduct of suppliers alters the preference set of consumers and hence their choices, resulting in an inferior outcome for those consumers, the solution may lie in regulatory intervention that aims to "steer people's choices in welfare-promoting directions without eliminating freedom of choice" (OECD 2006). However, the diverse range of factors and circumstances likely to place consumers at risk suggest that regulatory intervention is likely to be detailed and conduct specific.

Resetting defaults. Options can be presented in ways that lead the consumer to gravitate towards certain choices that are in their interests. For example, to overcome the biases of hyperbolic discounting and of default inertia, renewal of a telecommunications contract can be presented with 'opting out' as a default. Policy-makers and regulators could consider the use of "light" interventions such as a mandatory 'opt in" default provision (rather than an "opt out" default) as part of arrangements for extending a telecommunications contract.

Reframing. Suppliers can be required to present information in a variety of frames, or in specific frames which may guide sound consumer choice. The policy solution under a demand-side "behavioural approach" is that rather than requiring that the consumer read ever more complex contracts, the government can mandate standard form clauses or even standard form contracts. This recognises that the consumers probably will not read the contract. But care should be exercised so that in removing ambiguity, the behavioural solution also tries not to limit consumer choice since this can make consumers worse off if parties are now constrained to government-devised contracts that are inflexible and cannot be altered to fit their personal circumstances. In addition, care should be taken to ensure that business offers are not restricted such that there is less incentive to offer lower prices, greater choice or other benefits to consumers.

General de-biasing. Although biases are generally deeply ingrained, there is a role for consumer education, making consumers aware of their biases, and helping them to develop mechanisms to overcome those biases that go against their self-interest. For instance, to counter "hyperbolic discounting", consumers might be counselled to consider carefully whether a flat rate contract or a "free" mobile phone handset with a two-year contract really does suit their usage level and pattern.

Cooling-off periods can be used to allow consumers to re-frame their choices and to give them an opportunity for rational re-consideration to overcome the influence of impulsive choice, such as those resulting from "hyperbolic discounting".

Specific measures relating to the switching process

In addition to making better information available, raising awareness, and addressing some of the behavioural biases that may prevent consumers from actively participating in the market and taking decisions to switch where not satisfied, there are some specific measures that can be taken by regulators to reduce practical impediments to consumers switching from one supplier to another. For example, regulators could ensure that the shortest possible time is taken to complete number portability for consumers switching fixed line and mobile telecommunications providers. Regulators could require that all

Internet service providers ensure a simple, costless (or at least cheap) and quick transfer of consumers who choose to switch provider. Regulators could examine the need to limit the "lock in" period for mobile phone handsets in order to facilitate switching. Where applicable, the fee for unlocking the handset should be related to the cost involved.

Policy and regulation relating to fair business practices

Complaints can provide useful information on consumer detriment and unfair practices (Southwood 2006). In the United Kingdom, the greatest number of complaints to Ofcom's Contact Centre (OCC) relating to fixed and mobile telephony in the past year has involved mis-selling, including the provision of false and/or misleading information; pressure sales tactics; and consumers being transferred to an alternative provider without their permission ('slamming') (Ofcom 2007).

In most OECD countries, regulations are in place to restrict these kinds of harmful business practices. These regulations should be appropriately enforced in order to adequately protect consumers and ensuring consumer confidence is not undermined in the industry as a whole.

Consumer complaints may also be used to identify systemic issues in the industry. In particular, they may suggest that further work may also be needed to examine the fairness of contract terms and conditions commonly used in telecommunications contracts, in particular early termination fees, automatic renewals and post-contractual changes. For example, in France, in 2005, the French *Direction Générale de la Concurrence, de la Consommation et de la Répression des Fraudes* (DGCCRF) received more than 31 000 complaints, 40% of which related to insufficient pre-contractual consumer information on the main characteristics of the contract (consumers are usually locked-into the same operator for 12 to 24 months with various restrictions on early termination), and 25% relating to consumers' difficulty in terminating their contract.

In the United States, the FCC publishes quarterly reports on the top complaints received from consumers. For example, in 2006, complaints about wireless services rose from 4 050 in the 2nd quarter to 4 149 in the 3rd quarter. Billing and Rates was one of the top wireless complaint categories. Wireline complaints held steady or declined in the third quarter. Also, there was a decrease in the number of Wireless inquiries received during this quarter dropping from 9 296 in the 2nd quarter to 5 054 in the 3rd quarter. Amateur License Information and Service Issues inquiries replaced Billing and Rates and Contract – Early Termination as the top Wireless categories in the third quarter. Wireline inquiries decreased from 35 324 in the 2nd quarter to 13 724. The collection of this data gives perspective to the concerns of communications service consumers nationwide.

A draft bill aimed at improving consumer protection and information was adopted by the French *Conseil des Ministres* in November 2006, which would permit consumers to give their mobile operator 10 days notice to terminate their contract. Any deposit paid should be reimbursed within 10 days after the termination of the contract. The call waiting time during which consumers try to reach their operator's consumer services will be free of charge but the implementation of this provision will take place over 2 years (France Telecom has already implemented this provision for its own customers). In addition, the draft bill would require calls to all hot lines to be free and will limit to 10 days the delay in rescinding a contract in the telecommunications area as well as the reimbursement of any guarantee paid by the consumer.

This draft bill was introduced to implement Directive 2005/29/EC on Unfair Commercial Practices adopted by the European Parliament and Council on 11 May 2005. The draft bill was scheduled to be examined by the French *Assemblee Nationale* in the course of 2007. However, it was announced (during February 2007) that this legislation would be delayed until the administration of the next government.

Codes of practice

Industry codes of practice and other self-regulatory measures can, and have, been put in place to address many of the issues addressed above. When effectively enforced these kinds of measures can be very valuable to improve consumer confidence in the market and arguably are preferable to regulatory intervention.

Two recent examples of industry codes of practice are in France and the United States.

In view of the rise in consumer complaints in 2005 (see above), the French authorities took various measures to improve consumer information disclosure and to enable consumers to switch operators more easily and to activate competition. Rather than opting for an *ex ante* intervention, the government favoured a voluntary approach. The policy response has involved the Industry Minister, who brought together the principal firms, industry associations and representatives of the French *Conseil National de la Consommation* (CNC). Two consultative roundtables of consumers and industry associations were convened and as a result of the consultation, the CNC adopted a set of six recommendations that operators agreed to implement (at www.conseilconsommation.minefi.gouv.fr) (Box 2).

Box 1. Recommendations on consumer protection that operators in France have agreed to implement

1. All operators should – within 9 months from March 2006 – make available to consumers, before the signing of the contract, standard fact sheets indicating the length of their contract, fees charged for equipment installation and cancellation, tariffs and other essential characteristics of the offer. The objective is to allow consumers to easily compare the offers on the market and to increase competition.

2. All operators should adopt the same system of dispute resolution. They should indicate a consumer service contact point. Should these fail to solve the problem, consumers should be able to go through mediation (in practice, operators have chosen the same mediator).

3. Free of charge cancellation of the contract if the service available at the moment of the subscription is no longer available or if the offer has been substantially modified at a later stage.

4. A contract should be given to the consumer on the occasion of each new subscription or if the offer is substantially modified.

5. Telecom advertisements on paper format should be improved so that the content and the written characters of the offer are clear and immediately understandable to consumers.

6. A practical guide aimed at assisting consumers in choosing and using land, mobile and Internet telecom operators in their best interest was recently produced and made available to the public.

This guide offers tips on how to subscribe; how to contact a consumer service, how to terminate the contract, how to switch operator and keep the same phone number etc. It is distributed to consumers by consumer associations and operators.

In the United States, the Cellular Telecommunications & Internet Association (CTIA), in partnership with wireless carriers, has a 10-part Consumer Code (see Box 3) that enumerates voluntary industry principles, disclosures and practices. The voluntary Consumer Code can be designed to help consumers make informed choices when purchasing wireless services, better understand their wireless services and rate plans, and ensure that wireless carriers continue to meet consumer needs.

Box 2. Voluntary consumer code developed by CTIA in the United States

The voluntary Consumer Code includes 10 items. All carriers displaying the new Seal of Wireless Quality/Consumer Information have agreed to abide by each of the following points:

1. Provide every new consumer a minimum 14-day trial period for new service.

2. Provide coverage maps, illustrating where service is generally available.

3. In every advertisement that mentions pricing, specifically disclose the rates and terms of service.

4. For every rate plan or contract, provide consumers specific disclosures regarding rates and terms of service.

5. On billing statements, carriers will not label cost recovery fees or charges as taxes, and will separately identify carrier charges from taxes.

6. When initiating or changing service, carriers will clearly state contract terms to consumers and confirm changes in service.

7. Provide consumers the right to terminate service for significant changes to contract terms.

8. Provide ready access to consumer service.

9. Promptly respond to consumer inquiries and complaints received from government agencies.

10. Abide by policies for the protection of consumer privacy.

Source: CTIA, 2003.

Ensuring access to redress mechanisms

The above measures, while aimed at ensuring consumer welfare as a whole, do not provide redress for consumers who have suffered detriment because of deceptive, misleading, or otherwise unfair behaviour by firms. In this regard, mechanisms such as small claims tribunals, ombudsmen, and complaints systems (which provide feedback to regulators and suppliers) are important institutions for consumers in many markets (OECD 2007). They are more accessible, cheaper and less intimidating for consumers than the regular court system. Redress mechanisms also provide a forum for the resolution of disputes that arise from the transaction process but do not involve misconduct on the part of the supplier (for example, consumer complaints about the billing process).

In some countries, specific bodies have been established or proposed to address consumer complaints relating to telecommunications. For example, both the Australian and UK telecommunications industries have ombudsman offices — in fact, the UK has two separate and competing agencies. Membership in the Australian office is compulsory for all telecommunications carriers and eligible service providers. In the United Kingdom, membership in an ombudsman office is voluntary. However, every service provider, including Internet service providers (ISPs), must offer independent alternative dispute resolution (ADR) to their residential and small business consumers, and the ADR scheme must be approved by the regulator. In the United States, at the federal level there is a bureau within the Federal Communications Commission that carries out many of the functions of an ombudsman's office. Similar in-house organisations operate within a number of state telecommunications regulators. In 2006 the Canadian Telecommunications Policy Review Panel proposed the establishment of a new agency, to be called the Telecommunications Consumer Agency (TCA), to protect the interests of Canadian consumers in the new complex communications environment. The Panel proposed that the TCA be a self-funding, independent, industry-established agency with the powers and capabilities required to address issues effectively without duplicating the roles and responsibilities of existing organisations, and without increasing the regulatory burden on the telecommunications industry (Canadian Telecommunications Policy Review 2006). On 4 April 2007, the Canadian Government stated that it believes that an independent agency with a mandate to resolve complaints from individual and small business retail customers is an integral component of a deregulated telecommunications market. The Canadian Government called on the industry to work with the CRTC to

establish an independent telecommunications consumer agency. Until the agency is established, the Government has tasked the CRTC with monitoring and analyzing trends and issues in the telecommunications market, and to report to the Governor-in-Council, at least once a year, on complaints related to services provided by the telecommunications service providers, and to examine issues or trends that may warrant further attention by the CRTC or the Canadian Government.[24]

In the United States, the FCC's Consumer & Governmental Affairs Bureau (CGB) serves as the public face of the FCC's outreach and education, as well as through its Consumer Center, which is responsible for responding to consumer inquiries and complaints. CGB also maintains collaborative partnerships with state, local, and tribal governments in such critical areas as emergency preparedness and implementation of new technologies. Specific duties of CGB include:

- Developing consumer policy concerning Commission-regulated entities — especially with issuing orders to resolve complaints about unauthorized changes in telecommunications providers (slamming); conducting rulemakings on slamming, truth-in-billing, telemarketing, and fax advertising; and monitoring informal inquiries and complaints to identify trends that affect consumers.

- Providing informal mediation and resolution of individual informal consumer inquiries and complaints consistent with controlling laws and FCC regulations.

- Implementing consumer outreach and education policies, goals and objectives, and ensuring that the FCC has the benefit of a wide spectrum of information and viewpoints in its decision-making processes.

- Addressing disability-related telecommunications matters, including telecommunications relay service, access to telecommunications equipment and services by persons with disabilities, access to emergency information, and closed captioning.

The US Federal Trade Commission (FTC) collects complaints from consumers about a range of fraudulent and deceptive practices in the marketplace, including misleading advertising and fraudulent business practices. Although the FTC does not have jurisdiction over common carriers, it can use its authority to prevent unfair and deceptive commercial practices to stop certain harmful business practices by telecommunications carriers, such as misleading advertising.

Regulators should consider establishment of a specific body with authority to resolve complaints from individual and small business retail customers of any telecommunications service provider.

Uninvolved consumers

The circumstances of 'uninvolved' consumers who do not express dissatisfaction with their situation but who nevertheless may be disadvantaged in terms of their ability to participate in the market warrant special attention. Ofcom's research found that in the United Kingdom, such 'uninvolved' consumers may share a range of common characteristics that could justify targeted action:

- They tend to be older – people in the age group 65 years and older make up a large share of this group.

- They tend to be on lower incomes.

- They are less likely to have Internet access at home – in the age group of 65+, only 27% have home Internet access.

- They tend to have a lower than average understanding of new technology terms, a lower than average awareness of alternative suppliers and are often lacking in the knowledge of their rights.

For instance, Ofcom's research indicates that while those without Internet access – frequently older and low income consumers – are less likely to look for information at all, providing price information solely via websites could risk excluding relatively large and disadvantaged groups of consumers. There is need for further research to assess:

- Consumers' use of information sources and how consumers use these when making choices.

- Consumer opinion on current information obtained through *e.g.* supplier websites, Internet generally, specialist publications.

- The importance of savings in switching supplier, what trade-offs are made when considering whether to switch, and the key drivers in consumer decisions to search or switch.

- The extent to which misperception, low awareness of achievable savings or ease of the switching process impacts on consumer switching decisions.

There is particular need to assess the needs and motivations of consumers -- especially uninvolved and vulnerable consumers – in more detail to ascertain what, if anything, would encourage more participation in telecommunications markets. This would assist consideration of whether and if so what regulatory (and other) intervention is warranted.

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NOTES

[1] For instance, section 3(1) of the UK Communications Act 2003, stipulates that it is Ofcom (the UK regulator)'s principal duty, in carrying out its functions is to further the interests of citizens in relation to communications matters and relevant markets, where appropriate by promoting competition.

[2] Louise Sylvan (ACCC), Submission to 72nd session of the OECD Committee on Consumer Policy, 26-27 October 2006.

[3] Insights from behavioural economics, including many different types of consumer biases, are explored in detail in the proceedings of the October 2005 Roundtable on Economics for Consumer Policy (OECD, 2006).

[4] France Telecom, Annual Report Pursuant To Section 13 or 15(d) of The Securities Exchange Act of 1934, May 2006.

[5] See http://010.ktoa.or.kr.

[6] Reported in the *Singapore Business Times*, 22 January 2007, p. 30.

[7] Such as www.simplyswitch.com and www.magsys.co.uk/telecom/residx.htm in the UK or www.francemobiles.com/sonnerie/francemobile.html in France, www.abtolls.com in the US and www.phonechoice.com.au in Australia.

[8] Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services (Universal Service Directive) [Official Journal L 108 of 24 April 2002].

[9] Generally, these indicators fall into four categories:

- Network-oriented indicators, which include call failure, availability of connection, call set up delay, speech transmission quality, congestion, call clearing delay, call jitter, and availability of payphones.
- Billing indicators, particularly with the percentage of complaints due to billing errors and billing accuracy.
- Service and maintenance indicators, such as the supply time for first connection, the percentage of orders completed on time, the repair time, the ratio of missed appointments for installation or repair and fault rate per access line.
- Commercial indicators, relating measures such as the response time for operator services and for directory services.

[10] CRTC, Retail quality of service rate adjustment plan and related issues, Telecom Decision CRTC 2005-17, Ottawa, 24 March 2005.

[11] Reported in: Ofcom, "Consumer Engagement with Digital Communications Services", July 2006 and Ofcom, Ofcom's Consumer Policy – Annexes 5 and 6, February 2006.

[12] Rural and Regional Services and Development Committee (of the Australian Parliament) "Inquiry into Regional Telecommunications Infrastructure for Business", July 2006.

[13] NERA (2003), paragraph 1.3, page 1, at http://www.oft.gov.uk/shared_oft/reports/comp_policy/oft655.pdf.

[14] The UK telecommunications regulator, Oftel (Ofcom's predecessor), considered whether to take action against SIM locking. It found that SIM-locking still represents a barrier to switching at least for some consumers; but thought that it is inappropriate to use more formal regulatory powers to reduce SIM-locking concluding that the importance to consumers is best promoted by improved customer awareness. If raising awareness does not improve matters sufficiently, Oftel will reconsider whether a more prescriptive approach is needed.

[15] In Japan, there are actually many free mobile phones available since various mobile phones are provided from very cheap ones to sophisticated ones through stiff service competition among mobile carriers.

[16] Accordingly, an e-mail address includes the "domain name" of each mobile operator using the Internet e-mail standard. As a result, when a user switches, the carrier's domain name included in the user's current e-mail address has to be changed to that of the new contract carrier. On the other hand, when a user switches, the user is able to use the service to send a new e-mail address to all of the e-mail addresses in the user's address book even if he/she makes an MNP contract with any carrier. Furthermore, web-based e-mail on the Internet can be used on mobile phones. When a user switches, the web-based e-mail address does not change.

[17] Subscribers are also able to approach their existing operators by telephone.

[18] For additional info see: WNP in Canada website: www.wirelessnumberportability.ca/english/faq.html#1.

[19] The MAC process is a process that enables consumers to switch easily between broadband providers with minimal disruption to their service. A MAC is a unique code that the consumer obtains from his existing provider and gives to his new provider to arrange for the migration of the same underlying service to the new provider. The MAC process was developed by the industry and was initially set out in a voluntary code of practice -- the Broadband Service Provider Migration Code of Practice -- followed by the majority of broadband ISPs.

[20] The market may also respond through less formal mechanisms (*i.e.* the growth or establishment of an intermediary market).

[21] Although self-regulation could be used in this instance, and competitive markets may facilitate such outcomes, in most countries this has not occurred. One example of a regulator's requirement that telecommunications operators clearly spell out the contract terms and conditions is Anacom's determination on "Guidelines for minimum content to be included in electronic communication contracts" of 1 September 2005 (http://www.anacom.pt/template31.jsp?categoryId=215793).

[22] CRTC, Telecom Decision CRTC 2006-52, Ottawa, 29 August 2006, p.8.

[23] *Source*: Public Utilities Commission of the State of California, *Decision Issuing Revised General Order 168 - Market Rules To Empower Telecommunications Consumers and To Prevent Fraud*, February 2006.

[24] For additional info, see: www.ic.gc.ca/cmb/welcomeic.nsf/261ce500dfcd7259852564820068dc6d/85256a5d006b9720852572b400524ba5!OpenDocument.