Evaluating EU policies on public services: a citizens’ perspective

Clifton, Judith and Díaz-Fuentes, Daniel
University of Cantabria, University of Cantabria

03. July 2008

Online at http://mpra.ub.uni-muenchen.de/9420/
MPRA Paper No. 9420, posted 02. July 2008 / 17:09
Evaluating EU policies on public services: A citizens’ perspective

Judith Clifton
Departamento de Economía, Universidad de Cantabria
Av. De los Castros, s.n Santander 39005 Spain
judith.clifton@unican.es

Daniel Díaz-Fuentes
Departamento de Economía, Universidad de Cantabria
Av. De los Castros s.n Santander 39005 Spain
diazd@unican.es

Abstract

This article evaluates EU policies on public services – particularly public network services - from the citizens’ point of view. It is first argued that citizens’ perceptions about these services are important because they are essential for quality of life, but also because they exhibit economic characteristics such as asymmetrical information, adverse selection and positive externalities. Changing EU policy on public services is synthesised and classified into two main phases in section two. Citizen satisfaction with public services as revealed through surveys from 1997 to 2007 is explored in the third section. In the discussion, the prospects for EU policy on public services are considered and, it is argued that, from the perspectives of subsidiarity and proportionality, policy towards strengthening the common market is being increasingly uploaded to the supranational level in the form of directives, whilst cohesion and redistribution policies are being downloaded to the national level or dealt with at the supranational level by “soft” instruments.
I. Why do we need to know what the citizens think about public services?

Basic public network services - water, energy, transportation and communication - provide essential services for life. Water is the most fundamental of these services and, though the majority of water consumed by people and organizations is not for drinking purposes, the availability of drinking water of a certain quality for all has been recognised in the UN Millennium Goals. In a similar way, though advanced telecommunication services may not be fundamental, basic services are considered essential for economic, social and human development (ITU, 2006). A similar logic applies to energy and transportation. In addition to these fundamental justifications as to why citizens’ opinions about public services are important, there are more specific ones, since public network services exhibit certain economic characteristics which render them different to most other sectors. In synthesis, these characteristics include: natural monopoly, resulting from the high capital intensive and long-term investment required to build a network; dynamic economies of scale and scope; network externalities, which are strategic for economic and social development of all other activities; public service obligations and information asymmetries. The rest of this section briefly analyses why characteristics make citizens’ views important.
Although technological change has vastly reduced the requirements of high capital intensive costs for new entrants in some segments of the public network services, such as satellite, mobile telephony and cable technologies in the telecommunications sector, in the twenty-first century, important parts of public network services still exhibit non-competitive or monopolistic characteristics, such as intra-regional rail infrastructure, electricity transmission and distribution over high voltage networks, and water and sewerage. Economies of scale and scope still exist across some parts of the networks. High fixed sunk costs associated with building the network continue to deter new entrants, reducing potential for competition, whilst economies of scope allow the largest firms to offer more services. Despite the confidence placed in programmes of privatization, liberalization and unbundling to reform the network services during the 1990s, it is being increasingly recognised that there are limits to these policies because of the economic characteristics of these sectors. In practice, competition can often be introduced into parts of the network, but not across the whole network, as shown in Table 1. For instance, in the postal service sector, competition is possible in the delivery of urgent mail or in densely populated areas, but delivery of non-urgent mail in rural areas needs protecting by exclusive right, or else cream-skimming occurs whilst the periphery is neglected, as demonstrated in the Corbeau case.
Table 1.

| Non-competitive activities | Potentially competitive activities |
|----------------------------|-----------------------------------|
| **Telecommunications**     |                                   |
| Local loop services        | Long-distance; Mobile; Value-added services. |
| Termination of call on other networks | Local loop to high-density areas or broadband-cable-TV |
| **Postal**                 |                                   |
| Door-to-door delivery of non-urgent mail in lower density residential areas | Transportation of mail; Delivery of urgent mail or packages to high volume business in high density areas |
| **Electricity**            |                                   |
| High-voltage transmission. Local distribution | Electricity generation. Retailing or marketing. Trading activities |
| **Gas**                    |                                   |
| High-pressure transmission of gas. Local distribution in low density areas. | Gas production, storage, retailing and marketing |
| **Air Transport**          |                                   |
| Access to runways, take-off landing slots | Aircraft Maintenance Catering |
| **Railways**               |                                   |
| Track and signalling infrastructure | Operation Maintenance |
| **Maritime**               |                                   |
| Port facilities            | Pilot services, port services     |

Source: OECD (2002) Restructuring Public Utilities for Competition

Externalities are strong in network services because all subscribers or users are linked to most, or all, of the network: put simply, the more network users there are, the more the users can benefit from the larger network with a greater potential for communication and shared information. For historical reasons, universal public service obligations have been established in most network services and guaranteed by the privilege of exclusive rights for an enterprise, whether public or private, although these incumbents are increasingly on the defensive as EU competition policy is gradually extended more deeply to the network services. In this regard, it is important to know what citizens - as opposed to consumers - think about these services. Some citizens may be excluded from receiving these services because they live in the periphery or isolated areas (rural or mountainous zones, islands or enclaves) where network investment is not profitable, or because they cannot afford
them. Even if citizens can afford these services, they may not want them, but their provision affects them indirectly through externalities via their neighbours’ access to these services. When considering questions such as affordability and accessibility of public services, distortion is introduced if only consumers’ views are included, excluding citizens or “non-consumers”. However, this is what sometimes happened in some EU surveys, as is shown in section three.

Finally, public service networks exhibit problems of asymmetric information (adverse selection and moral hazard) between the regulatory authority and the firm, between firms in the same or different industry segments, as well as between citizens and the firm. Most citizens cannot properly know the quality of water they drink, nor can they appreciate the quality of electricity or gas that cooks their food or warms their home, even after repeated consumption. In this situation, the provider may decrease quality while maintaining prices (moral hazard), whilst consumers struggle to choose the superior provider (adverse selection) assuming there is competition. Hirschman’s “exit-voice-loyalty” framework is of use here, since, generally speaking, “exit” for citizens is difficult (Hirschman, 1970; Costas, 2006). In the case there is dissatisfaction with a particular service, this service cannot be returned to the provider, whilst any unknown effects could have an irreversible effect on the consumer (water, energy or transport). Nor can the citizen necessarily opt for another service provider either because there is no competition, or because the perceived costs of switching provider are high, such as internet or electricity. In these cases, the need for “voice” is particularly important. Citizens’ opinions about public network service provision are important sources of information for other citizens, firms (competitors and new entrants) and regulators. Comparative, dynamic
knowledge (observation and analysis) about the evolution of citizens’ opinions on the provision of public network services disaggregated into sectors and countries provides a useful basis for designing and evaluating public policy reform in these sectors. Citizens’ opinions on public services in the EU-15 and the EU-25 between 1997 and 2007 are examined in section three. Before that, a brief synthesis of the evolution of EU policy on public services is included in section two.

2. EU policy on public network services

Hirschman (1982) enquired as to the reasons for oscillations between intense interest in public issues and concentration on private goals: the evolution of EU policy on public services is an interesting case of changing public-private involvement. EU policy on public network services can be envisaged as a triangle, with the State, Market and Citizens/Consumers at the corners. EU policy always includes all three, but in different proportions. In general terms, from the post-war period, the State was entrusted to supply, top-down, public services to citizens, usually via public monopolies and public service obligations. This changed from the 1970s, when private ownership was deemed preferable to public ownership for public service supply. The most extreme proponents argued that private monopoly was superior to a public one, due to the assumed superior benefits private management would entail (Meggison and Netter, 2001), though privatization was often accompanied by new State regulation (Majone, 1996). From the late 1990s, there was increased recognition of the limits of privatization, liberalization and unbundling in the public services.
Generally speaking, EU policy on public services can be divided into two main phases. The first phase, from the Treaty of Rome (1957) to the beginning of the 1980s, is the “blind eye” period, since this was characterised by EC competence in the field, but neglect in practice. The Treaty of Rome aimed to create a single common market characterised by regional competition policy, where goods, services, persons and capital could freely circulate. In addition, the treaty made reference to Services of General Economic Interest (SGEI), stating that these services should be subject to competition as long as that did not deter their provision of these services. In practice, however, it was left to Member States to gradually phase out regulation and interventionist policies and, in the quest for competitive markets at a supranational level, a blind eye was turned to national government subsidisation or preferential treatment of public and private enterprises providing public services, as this could have been perceived as interference, and potentially highly conflictive with Member States. Historically, in Europe, and indeed, most other economies around the world, public intervention in many forms was commonplace and, until the 1970s, only the most extreme of debates would have argued that public intervention was incompatible with the functioning of the market. Most prominent economists analysed and dealt with the problem of competition in markets operating in networks in terms of the public interest. The control of natural monopolies had constituted, within the analysis of general equilibrium, the exception to the rule about perfect competition and the traditional justification for public intervention. At the same time, public services had played an important role in the historical evolution and institutional building of EU Member States, representing a different model than that found in the United States (Galambos, 2000). Though there were some important differences in the public service regimes across Member
States, there were also many common features in terms of *raison d’être*, organization, ownership, regulation and development.

A change in EU policy occurred during the 1970s, starting in 1974, when the European Court of Justice clarified that Article 86, which dealt with providers of SGEI and competition law, was now understood to mean that the burden of proof would fall to the provider: in other words, it would have to be proved that exposure to competition damaged SGEI provision. This became known as the “rule exemption clause”, according to which competition law is the “default” and the general interest the exemption once proven (Damjanovic, 2007). This change opened the door in legal terms for the second phase of EU policy on public services, “activation”.

Change in EU policy was prompted by economic and financial crises, accompanied by a shift in economic policy objectives from Keynesian “interventionism to sustain economic activity” to one based on faith in the market-oriented reforms and private ownership. In this period, the previously unresolved contradictions at the heart of policy on public services were increasingly exposed to probing, and, finally, dramatic reform. Deepened integration, combined with the global shift towards more “neo-conservative” economic policies, increasingly forced State intervention – in general and in enterprises providing public services – onto the defensive. In the telecommunications sector, most European countries transformed the direct regulation by bureaucratic public operators (typically Post, Telecommunications and Telegraph, PTT) of State-owned enterprises (such as BT, Deutsche Telekom or France Télécom) during the 1980s, whilst the EC introduced modest reforms to open up certain segments of national markets (terminal equipment in 1988, public procurement in 1990). In the 1990s a regulatory framework for liberalization and
independent sector regulation was introduced (EC 96/19/EC). Accordingly, Member States set up independent regulatory agencies and agreed to liberalise the sector by 1998 (in Ireland and Portugal the date was 2000, and in Greece in 2001).¹ Whilst privatization was not an EC competence, most governments also fully or partially privatised the sector too.

Internal market energy liberalization developed in parallel with that of the telecoms industry, the first measures taking place in 1996 (92/EC) and 1998, but was dogged by delays and reforms (Directives 2003/54/EC and 2003/55/EC). Privatization in the energy sector proceeded liberalization in many regions, such as England, Wales, Austria, Belgium, Germany and Spain, whilst the rest of the EU-15 started to privatise in the 1990s (Clifton, Comín & Díaz-Fuentes 2003). France generally resisted both privatization and liberalisation (Cenoud & Varone 2002). Over one decade later, a study of the effects of privatization and liberalization of the three largest electricity markets in the EU revealed that prices were lowest in France, precisely where less reform had occurred (Florio 2007).

EU transport policy is the oldest, the most heterogeneous (in terms of ownership and technology) and perhaps the most complex of all policy on public network services. A common transport policy was included in the Treaty of Rome, as it was recognised that Europe’s transport system needed to be integrated in order to facilitate market integration, so policy was less of a “blind eye” than in other sectors. Despite this, there were multiple delays and failures in implementing a common transport system as argued by Pelkmans (2006). EU transport policy needs evaluating by sub-sector due to its heterogeneity, which is beyond the aim of this paper, but a general
conclusion is that there is still significant public intervention in these sub-sectors and no common European model as yet.

Postal services reform is much more recent: liberalization commenced with the reform of the PPT and was pushed further by the first and second postal directives (97/67/EC and 2002/39/EC). Whilst liberalization has been resisted in some Member States, a recent development is the successful internationalisation of firms such as DHL (UNCTAD, 2004).

The speed and depth of these policy reforms alarmed certain European politicians and social partners from the 1990s. The basic concern was that citizens needed some kind of guarantee to ensure their rights to satisfactory public service provision amid profound reforms. The European Centre of Enterprises with Public Participation and of Enterprises of General Economic Interest (CEEP), and the European Trade Union Confederation (ETUC), were particularly active, and were commissioned by the French and Belgian presidencies to draft a Charter for Services of General Interest (SGI) as a basis for a Framework Directive (CEEP and ETUC, 2000). These groups were not against the market reforms per se, rather, they sought to reduce uncertainties about public service provision. Public services, previously provided mostly by State ownership, had been subject to regulation enshrined in a Constitution or national legal system. Citizens had a “voice” via the universal right to vote nationally and locally. Under privatised ownership and market-driven rules, it was feared that commercial interests would be pursued over and above the public interest, which could negatively affect public service obligations, universal service, quality, price and continuity of supply. These concerns grew when
Foreign Direct Investment, in particular Mergers and Acquisitions, took off in the public network services from the end of the 1990s. Liberalization created new business opportunities to expand within the EU and beyond, whilst privatization generated new financial opportunities for Mergers and Acquisitions in these services, where size mattered, given persisting economies of scale and monopolistic competition. Newbery (2007) argues that one of the reasons for the “merger wave” in recent years is that since energy demand and thus organic growth is increasingly only slowly, electricity utility managers either have the option of returning profits to shareholders or spending them on acquisitions, the latter being more in their interest. This conflict of interests was predicted by the “principal agent” dilemma whereby, in the face of Mergers and Acquisitions, managers, shareholders, workers and citizens can all have different interests. This conflict was one of the justifications for introducing golden shares and designating the sectors of “strategic” interest.

Recently, public network service providers, bound by Nation States for the bulk of the twentieth century, have transformed into some of the world’s leading Transnational Corporations, led in particular by EU-based firms: Deutsche Telekom, Électricité de France, Vodafone, DHL, Suez, Telefonica and Enel (Clifton, Comín and Díaz-Fuentes 2007). These services, once delivered and guaranteed by the State, can now be delivered by State-regulated Transnational Corporations, whether private, State-owned, foreign or domestic. Public network services, understood for most of the twentieth century as a domestic instrument of the Nation State, have become an increasingly important part of international trade and a key issue in international economic policy. An important turning point was the incorporation of services into the establishment of the World Trade Organization in 1994. Raza
(2007), following Krugman (1997) argues that, although EU trade commissioners support free trade in theory, in practice, they are inspired by mercantilism. In contemporary trade policy, the State, which must safeguard the interests of a national economy and its principal stakeholders, privileges nationally-based firms at home in order to facilitate their expansion abroad. This can be understood as a neo-mercantilism, in that the objective of trade policy is to achieve a trade surplus (public service exports are promoted whilst imports are blocked). Indeed, “national champion” policies at home have been one of the key developments in promoting the expansion of public network services abroad (Clifton, Comín and Díaz-Fuentes 2007, UNCTAD 2008).

In parallel to the increasing involvement of public service networks to liberalization, privatization and internationalization, there was a notable shift towards their “commodification”, in policy reform and in the way in which public services were conceived. As part of this change, systematic efforts to survey and collect data on citizen and consumer satisfaction began in this period. During the 1990s, a decision was taken within the EU to replace the house-hold term “public service” in official discourse with SGI. The Commission (EC 1996:1) argued that this was necessary in order to avoid the ambiguity of the term “public service”. This ambiguity, it was argued, lay in the fact that two things were generally understood: public ownership and a service for the public. Claiming it must adopt a neutral stance on ownership, the EC argued that SGI was a more accurate term as it expressed the service was for the “general interest” without suggesting who owned it. It will be remembered that SGEI figures in the original treaty, but SGI does not. Definitions of these two terms were fore-grounded in the Green and White Papers on SGI (EC 2003d and 2004a).
Confusingly, the term SGI was used to refer to two different things: it referred to non-economic services, and was also used as a “blanket” term to refer to both SGI and SGEI. Although the categories SGI (“non-market”) and SGEI (“market”) are stable theoretically, the way in which sectors are classified into “market” and “non-market” sectors is fluid and subject to change. Moreover, Member States may have different ideas about how to classify services. While it may be less controversial to justify the classification of justice and security as SGI, it is more difficult to agree on social protection and education classification. Those services not falling in the SGI category are understood as “market” services upon which specific public obligations are placed and subject to competition when this does not negatively affect service provision. Writ large, this fluidity has important consequences at the international level since the GATS rules are applicable to privately-owned services that are no longer deemed appropriate for protection from the competition at the national level (Raza, 2007).

Though, ostensibly, the terms SGI and SGEI were introduced in order to present EU policies more clearly, after more than a decade of reform, most citizens simply do not understand this terminology. Blame lies with the EU, as the terminology is confusing, and has not been communicated well. The problems are greater in countries such as Germany and the UK, which do not have similar legal equivalents at the national level, making their adoption more challenging. In some of the newer Member States such as Poland, the Czech Republic, Estonia and Slovenia, these legal categories do not even exist (Mangenot, 2005). Furthermore, SGI documentation is usually not translated into the new Eastern European languages leading to semantic confusion.
As part of this “activation” phase, systematic attention was paid, from the mid 1990s, to the opinion of citizens and consumers about public service provision. Two main influences were at play here: firstly the New Public Management school, secondly, continental legal traditions (Clifton, Comín and Díaz-Fuentes 2005; Prosser, 2005). The next section critically analyses the major surveys on citizen and consumer satisfaction published between 1997 and 2007.

3. Evaluating satisfaction with public services: consumers, citizens and “non-consumers”

From the mid 1990s, the EC intensified efforts to produce systematically data on citizen satisfaction with public services, as well as on measuring public service performance. In regard to the latter, a horizontal, “evolutionary” method of evaluation was adopted in 2002 and applied from 2004. This methodology was developed by the DG Internal Market in consultation with the CEEP and the Initiative for Public Service Utilities in Europe. Topics are selected (such as productivity, cohesion, transposition of directives, or access) that are common concerns to all the network services, and considered on a cross-sectoral, cross-national basis. Methodology combines economic analysis of market performance, public policy objectives and developments and public service obligations, whilst it also takes into consideration the results from the surveys on citizen satisfaction. Horizontal evaluations have been used to complement sectoral evaluations of air and railway transportation, local and regional public transport, electricity, gas, postal services, telecommunications and, from 2006, internet and bank services. Among the main challenges faced by the
evaluators are that there are gaps in statistical information about service quality indicators across the EU; there is limited experience in the horizontal evaluation of these services; and cross-country evaluation is difficult since policy objectives vary according to the Member State. Moreover, public policy objectives can be achieved via different means (access may be ensured using electricity or gas for instance). Horizontal evaluations are not, therefore, full evaluations in the traditional sense, and they are not used to produce recommendations for specific sectors. It is left up to Member States to evaluate public service performance in the last instance, though comparative studies act as a pressure for underperforming countries to improve. In addition, the evaluations serve as a basis when working with regulators and network operators to develop and foster common criteria. In some cases, such as postal services, it has been possible to develop common service quality criteria using European standardisation bodies, but this is an exception to the rule.

In regard to evaluating citizen satisfaction with public services, the methodology used is similar to that which has been used by the EC to monitor public opinion from 1973 (Eurobarometer). Standard survey techniques, in addition to “flash” surveys (conducted by telephone for rapid publication), and focus group techniques are used. Citizen satisfaction with public services has been gauged in a series of Eurobarometer surveys published from 1997 to 2007. Here, the six main surveys on SGI satisfaction are considered. The first in-depth survey on customer satisfaction with public services was the Eurobarometer Opinion Poll 47.1 (EC, 1997). For methodological reasons, results from the 1997 survey cannot easily be compared to the surveys from 2000. In 2000, the EC took great strides to use similar methodological approaches so as to make data on satisfaction comparable over
time. Eurobarometer 53 (EC, 2000a) and 58 (EC, 2002a) are in-depth surveys dedicated to the analysis of customer – not citizen - satisfaction with SGI in the EU-15. Another survey conducted in the Candidate Country European Barometer (EC 2003) uses similar methodologies and is thus directly comparable. In 2004, the EC commissioned Eurobarometer 219 (EC, 2005a) for the EU-25, which is also comparable to the SGI surveys from 2000. Eurobarometer 260 (EC, 2007a) deals with consumer attitudes towards SGI including new services such as internet and banking during the year 2006. EC 2000a, 2002a, 2003a and 2005a measure customer satisfaction with SGI using access, price, quality, information, and other contract indicators. Global results are broken down into sectors: electricity, gas, water, fixed telephony, mobile telephony, postal services, urban transport and railways, EC 2007a covers these sectors plus internet and banking.

In what follows, the surveys will be analysed in order to extract information about citizens and consumers views on public services. Data revealing information about consumers´ and citizens´ satisfaction with SGI in general is analysed for the EU-15 (using EC, 1997; EC, 2000a and EC, 2002a), the EU-10 (EC, 2003a) and the EU-25 (EC 2005a and 2007a). Attention will be paid to methodological changes, and efforts will be made to compare over time the results, by country, sector and by issue surveyed, contrasting where necessary, the “official” interpretation with an independent analysis.

The first survey (EC, 1997), entitled “Consumers´ Europe: citizens face competition of public service monopolies”, was designed to understand how citizens perceived public service reform, particularly liberalization, their recent experiences with service
quality and price, satisfaction with public services, and their expectations about minimum service. Services were included in this survey were quite broad, including gas, water, fixed telephony, postal services, air transport, urban transport, inter-urban coach transport, rail transportation and television access, in addition to non-network services, such as justice, health, ambulances, road maintenance and so forth. Some 61% of European citizens stated they were aware of the opening of public services to competition, while 70% of them considered it a good thing in regard both to service quality and price. However, the vast majority claimed they had not yet witnessed improvements in price (85%), quality (76%), choice (73%) or customers’ interest protection (83%). Price reductions in the telecommunications sector were slightly better than average, since “only” 73% believed they had not enjoyed cuts yet. The UK did slightly better than the rest of the EU in terms of price reductions in telecommunications, electricity and gas distribution, though results for water, railways and postal services were very similar to the EU average.
Table 2. Perception of Quality of SGI: EU15 average of satisfaction and country differentials (1997).

| Service                  | EU  | GR  | I   | P   | E   | B   | F   | UK  | D   | IR  | S   | A   | LU  | NL  | FI  | DK |
|--------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Electricity distribution | 81  | -28 | -13 | -17 | -7 | -3 | 1   | 4   | 2   | 15  | 13  | 14  | 7   | 16  | 15  | 16  |
| Gas distribution         | 66  | dk  | -6  | -22 | -3 | -3 | 3   | 10  | 9   | -14 | dk  | 4   | 5   | 30  | dk  | 4   |
| Water distribution       | 63  | -24 | -13 | -15 | -2 | 1  | -11 | -6  | 13  | 1   | 28  | 23  | 17  | 28  | 28  | 27  |
| Fixed Telephony          | 74  | -40 | -9  | -16 | -4 | -4 | 6   | 7   | 2   | 12  | 17  | 4   | 10  | 6   | 20  | 5   |
| Postal services          | 53  | -6  | -32 | -16 | -6 | 2  | 7   | 22  | -3  | 28  | -2  | 9   | 26  | 29  | 5   | 30  |
| Public urban transport   | 44  | -19 | -21 | -16 | 9  | -2 | 1   | -3  | 7   | 7   | 17  | 16  | 27  | 11  | 25  | 28  |
| Intercity railway        | 41  | -6  | -25 | -6  | 6  | 6  | 1   | -8  | 9   | 16  | 1   | 17  | 26  | 17  | 33  | 37  |

Source: Elaborated by the authors using Eurobarometer 47.1 (1997) data.

In regard to perception of service quality, EU citizens revealed strikingly different results depending on the sector: whilst 81% of EU citizens thought electricity distribution was of a good quality, only between 41% and 44% thought the same about public transport and railways respectively, as shown in Table 2. Within each sector, country responses differed: in the case of electricity distribution, percentages ranging from 53% in Greece to 97% in Denmark thought the service was satisfactory. When interpreting results, there may be a large percentage of “don’t knows” (dk), particularly in certain countries for particular sectors (such as gas in Greece, Finland and Sweden where availability was limited).

Another clear trend was country differences. Countries fell into one of three categories: those with citizens having below-average satisfaction with public services (Greece, Italy, Portugal and Spain); those with above-average satisfaction (Austria, Luxemburg, Netherlands, Finland and Denmark); and those with close-to-average satisfaction (Belgium, France, the United Kingdom, Germany, Ireland and Sweden). Despite an early start and prolonged privatisation process, and the liberalisation of many public utility monopolies, UK citizens were not, on average,
relatively more satisfied with their public services in general than in the rest of the EU. Indeed, in the UK, most satisfaction was shown for postal services, which, in 1997, was still a public corporation subject to public service reform, whilst the lowest quality perceptions were perceived for railways and urban transport, where liberalisation was relatively advanced. In sum, this survey noted a paradox: European citizens had high hopes about the benefits that the liberalization of public services would bring, but most of them had not as yet experienced the benefits in terms of price, quality and choice.

The next survey (EC, 2000a) avoided the dilemma of using “citizen” or “consumer” in

| EU-15 | Quality = Q | Price = P | Information = I | Contracts = C | Overall = O |
|-------|------------|-----------|-----------------|---------------|-------------|
| 2000  | 2002       | 2000      | 2002           | 2000          | 2002        | 2003        |
| Electricity | 92 | 91 | 56 | 55 | 75 | 73 | 68 | 68 | 73 | 72 | 95 | 44 | 82 | 67 | 72 |
| Gas | 87 | 86 | 56 | 55 | 71 | 69 | 65 | 65 | 70 | 69 | 91 | 49 | 81 | 67 | 72 |
| Water | 89 | 89 | 55 | 56 | 72 | 72 | 67 | 66 | 71 | 71 | 90 | 51 | 82 | 68 | 73 |
| Fixed Telephony | 91 | 90 | 50 | 51 | 76 | 75 | 63 | 64 | 70 | 70 | 84 | 29 | 75 | 51 | 60 |
| Mobile Telephony | 81 | 84 | 40 | 44 | 66 | 67 | 55 | 59 | 60 | 64 | 76 | 35 | 66 | 53 | 58 |
| Postal services | 80 | 82 | 67 | 68 | 79 | 78 | 70 | 70 | 74 | 75 | 87 | 60 | 88 | 73 | 77 |
| Urban transport | 66 | 66 | 49 | 47 | 70 | 68 | 59 | 57 | 61 | 60 | 70 | 48 | 77 | 61 | 64 |
| Intercity railway | 61 | 59 | 41 | 38 | 66 | 62 | 55 | 51 | 56 | 53 | 58 | 38 | 70 | 54 | 55 |

Correlation index

| Quality | Price | Information |
|---------|-------|-------------|
| Price = P | 0,44 | 0,59 |
| Information = I | 0,51 | 0,69 | 0,88 | 0,89 |
| Contracts = C | 0,66 | 0,84 | 0,95 | 0,93 | 0,88 | 0,90 |

| Q | P | I |
|---|---|---|
| 0,35 |               |
| 0,69 | 0,81 |
| 0,62 | 0,94 | 0,91 |

Eurobarometer 53 2000 (conducted 5 April - 27th May 2000) Survey carried out at the Request of the EC Director General Health and Consumer Protection
Eurobarometer 58 2002 Consumers and General Interest Services The European Opinion Research Group Survey carried out at the Request of the EC Director General Health and Consumer Protection
CCEB Candidate Countries Eurobarometer 2003.3 (Fieldwork June-July 2003) DG Health and Consumer Protection
its title, calling itself “The People of Europe and Services of General Interest”. In practice, EC (2000a) and EC (2002a) deal only with consumers. Respondents who declared that certain questions did not concern them (“not applicable”) were screened \textit{a posteriori}. These citizens were “non-consumers” of services. Data on satisfaction was thus recalculated on that basis. This survey measured consumer satisfaction with access, prices, quality, information, contracts and complaint handling for SGI. Since the methodology was identical, comparative analysis of consumer satisfaction could be derived.

\textbf{Table 3. Consumer satisfaction with SGI: EU15 average opinion on Quality, Price, Information, Contracts and Overall in 2000 and 2002 and EU 10 new members in 2003}

Comparing overall consumer satisfaction with SGI in 2000 and 2002 in the EU-15 (calculated using the four indicators quality; price; information provided and contracts), a clear sectoral ranking emerges. Consumers were most satisfied with postal services (75% in 2002), though electricity, water, fixed telephones and gas distribution all scored highly in both surveys (above 69%). Of these four “high performing” sectors, average consumer satisfaction with quality, price, information nor contracts were stable between 2000 and 2002, as shown in Table 3. This ranking of satisfaction is similar to that of EC 1997 (bearing in mind the 1997 option ‘neither good nor bad’ is not included in EC 2000a and EC 2002a). “Lower performing” sectors were urban and rail transportation and mobile telephony, but with some important differences. Firstly, satisfaction with intercity rail services trailed far behind the other sectors, with just 53% of customers expressing overall satisfaction, but this represented a drop from 56% in EC 2000a. Urban transport
faired less badly, with overall satisfaction rates falling from 61% to 60% in the same period. Overall satisfaction with mobile telephony, mostly provided by private operators, and not dealt with in EC 1997, increased in EC 2002a to 64% from 60% in EC 2000a. The reasons for this lower overall satisfaction rate are clear: consumers had lower satisfaction rates with price, information provided and contracts. The 2000 and 2002 polls are not only homogenous in methodology, permitting coherent sectoral and country comparisons, they also show consistent results about customers´ opinions about different SGI as revealed in the matrix of correlation between criteria (quality, price, information and contracts). This indicator was most significant between price, contracts and information, and between information and contracts, suggesting consumer concern about their rights.

In the face of enlargement, the survey “Consumers´ opinions on SGI” (EC 2003a) was published on consumer satisfaction in the ten candidate countries. This found that overall satisfaction rates with SGI were very similar in acceding countries. Satisfaction with postal services, electricity, water, gas, urban transport and railways were rated somewhat higher than in EU-15, whilst there was less satisfaction with fixed and mobile telephony (EC 2003a). The main source of dissatisfaction by consumers from the candidate countries was the perception of high prices.

The most recent surveys on satisfaction with SGI are EC 2005a and EC 2007a. These surveys, called simply “Services of General Interest” deal with the same sectors as the surveys from 2000, whilst they also include internet and banking. There is an interesting change in the methodological approach in these recent surveys. Whilst EC 2000a and EC 2002a screened out non-consuming citizens from
the analysis, EC 2005a and 2007a identify SGI consumers and non-consumers at the outset. Questions of access are stressed for consumers and non-consumers, and the latter were surveyed further on issues such as accessibility, affordability-price, quality, consumer rights protection and consumer relations. Non-consumers who nonetheless potentially had SGI provision were in particular asked about affordability and lack of knowledge. In addition, for the first time, additional socio-economic variables of respondents were considered, including gender, age, education, household composition and “subjective” urbanisation. Another significant change is that these recent surveys seek to better understand the use of SGI. EC 2005a and 2007a focus on five main areas of “consumer satisfaction”: access; use of SGI; how much they use; affordability; quality and consumer relations. Three aspects most suitable for comparison with EC 2000a, 2002a and 2003a are access, affordability and consumer relations (customer service, handling of complaints, consumer protection).

Table 4. Consumer satisfaction with SGI: EU-25 average opinion on Access, Complaints and Affordability (users and non-users) in 2004 and 2006

|                     | Access 2000 | Access 2002 | Access 2004 | Access 2006 | Affordability 2004 | Affordability 2006 | Protection-Complaint 2004 | Protection-Complaint 2006 |
|---------------------|-------------|-------------|-------------|-------------|--------------------|--------------------|------------------------|------------------------|
| Electricity         | 91          | 88          | 90          | 93          | 64                 | 66                 | 50                     | 56                     |
| Gas                 | 74          | 67          | 70          | 72          | 65                 | 65                 | 40                     | 55                     |
| Water               | 90          | 85          | 89          | 93          | 70                 | 75                 | 51                     | 53                     |
| Fixed Telephony     | 90          | 90          | 88          | 91          | 67                 | 76                 | 43                     | 51                     |
| Mobile Telephony    | 69          | 75          | 79          | 85          | 68                 | 76                 | 37                     | 56                     |
| Postal services     | 90          | 86          | 87          | 93          | 81                 | 87                 | 65                     | 44                     |
| Urban transport     | 75          | 68          | 71          | 80          | 68                 | 78                 | 54                     | 39                     |
| Intercity railway   | 70          | 61          | 64          | 73          | 63                 | 74                 | 49                     | 43                     |

Note = 2006 Non-Users opinion on Affordability affordability of particular SGI
Source: Elaborated by authors based on Eurobarometer 219 – “Consumers’ opinions on services of general interest” (2005) conducted in 2004 and Eurobarometer 260 (2007) conducted in 2006. Eurobarometer 2000, 2002 and 2004.
It is interesting to contrast the official interpretation of survey findings with an independent analysis. In terms of SGI access, the latest survey is upbeat: “The results show how widely spread access is to a number of services ranging from the routine (water and electricity) to new technologies (mobile phone and internet) and services such as banking and transport….. it can be noted that at an EU level, access has not become more difficult in any sector…” (EC 2007b: 5). This optimistic scenario is largely derived from the fact that EC 2007b was compared with EC 2005b. If, however, access to SGI is considered over the longer term, as in Table 4, it can be seen that SGI access has not actually improved so significantly between 2000 and 2006. There was an improvement in access between 2004 and 2006, but only after a general decline in SGI access between 2000 and 2004. Mobile telephony is the exception; as a new technology, access grew from a lower access level from 2000. Breaking down SGI access by socio-economic group, differences in access to SGI becomes clearer. Access to mobile phones for the over 55s was 25 points lower than the average, 9 points less for those in rural areas and 18 points lower for people living alone. For gas, access to the over 55s was 5 points down and rural villages 11 points down. In the case of urban transport, over 55s were 12 points down for access and 26 points lower for rural villages (EC 2007b). Despite these inequalities highlighted, little is said explicitly about their significance, for instance, what is an “acceptable” level of SGI (in)access. This leaves no clear target for EU policy on public services.

Satisfaction with affordability is the next category whose evolution can be assessed. Again, EC 2007b is upbeat, asserting that, according to users’ views, most services have become more affordable. This assertion is questionable. A significant
proportion of consumers consider that the prices of some of the basic SGI are either not affordable or excessive (31% for electricity and 33% for gas). In addition, there is an important proportion of citizens who are excluded from SGI because they are unable to pay. Among mobile phone users, 76% claim the service is affordable, as shown in Table 4. However, of the “non-consumers”, 73% think this service is excessive or unaffordable. Some 40% of non-consumers of electricity and fixed telephony find the services excessive or unaffordable. For internet users, 80% consider the service affordable, while for non-users only 38%.

The third category is consumer relations (including a growing number of issues, such as complaints handling and consumer protection). The EC considers consumer protection as critical, especially when there is monopoly provision. According to EC 2005b and 2007b, “a majority of consumers consider their interest to be well protected”. Factually, this is true, since around 50% of consumers are satisfied. Satisfaction with consumer relations has, however, worsened over the last two years and from 2000 to 2006 in the cases of electricity, gas and water. Again, it is left unclear as to what is an “acceptable” level of dissatisfaction with consumer relations.

In sum, between 1997 and 2007, surveys on citizen or consumer satisfaction with SGI have undergone shifts in terms of the survey focus, questions posed, inclusion/exclusion of those surveyed, and survey outcomes. EC 1997 repeatedly used the term “citizens” – in a document of 121 pages, citizen was used 303 times – though a shift towards consumerism was already embedded in the questionnaire. Concern about consumer satisfaction was consolidated in EC 2000a, 2002a and 2003a. Interestingly, the most recent surveys show an interest about socio-economic
categories and a renewed attention to “non-consumers” is apparent, this despite the fact that EC 2007a contains 144 pages and uses “citizen” thirteen times and “consumer” 363 times. EC 2007a reveals few explicit policy objectives, however, such as what level of inaccessibility and unaffordability is acceptable in Europe. As a conclusion, EC 2005a and 2007a are still fundamentally concentrated on the consumer.

4. Discussion

Shifting public and private involvement in public service provision has long been a feature of societies. It is argued here that EU policy on public services started as a “blind eye” one from 1957 to the late 1970s, but then became “activated”. This latter phase was characterized by liberalization, deregulation, privatization and unbundling of many public service providers. Particularly from the 1990s, there has been a gradual “commodification” of public services through the stressing of consumer satisfaction, over and above citizen satisfaction. This trend has been revealed through the evolution of surveys on satisfaction with public services.

The horizontal surveys on SGI also reinforce this trend. The three latest reports published in EC 2004b, 2005b and 2007b show a gradual, but unquestionable shift to market driven and structural reforms of network industries providing SGI more than a concern to implement regulation based on citizen voice. The latest report stresses above all the issues of market policy, market structure and competition, prices and competitiveness, and the effects of market opening. The final two parts of the seven-part report deal with public service obligations and consumer views. The
term “citizen” is not even used. When citing consumer views, an upbeat perspective is adopted whereby the public service reform has been an unconditional success.\(^5\) From a policy perspective, the cure to improve network industry performance is more market. If consumers do not benefit from market reforms it is not because of any lack of enforced regulation, but rather, because competition is restricted by Member States, incumbents firms, technical, legal and other barriers, and even “consumer inertia”.\(^6\) What is needed, it is claimed, is more liberalisation, and further removal of barriers to new entrants. Market-orientated reform will cure EU sclerosis and, at the same time, increase “consumer satisfaction”. Even though the creation of EU Transnational Corporations in these sectors in a monopolistic competitive market could block market integration, the EC is largely unwilling or unable to challenge this process.\(^7\) In the energy sector, Helm (2007) has argued there is a “new energy paradigm” whereby governments are focusing on security of supply and climate change, rather than full liberalization of markets.

What of the future? If, in the middle of the 1990s, it looked possible that a Directive on SGI could be passed that focused squarely on citizens’ rights, in 2008, it seems that the EU is quietly, and gradually, abandoning the aim of protecting citizens through supranational “positive integration” (Tinbergen, 1954), downloading this to the national level, or else promoting discussion with “soft” instruments or in non-committal ways. For instance, it has been argued that, whilst the latest satisfaction surveys pay a renewed attention to socio-economic variables previously ignored, connecting these to questions of access and affordability, no clear policy targets are identified in terms of what levels of satisfaction with access and affordability are acceptable. The lack of policy proposals and targets contrasts sharply with the clarity
and confidence of policy statements in the recent horizontal evaluations on SGI performance.

SGI was finally included in Treaty of Lisbon (in a Protocol) with a legal basis for the first time, where it is recognised that the provisions of the treaty do not affect nation State’s competences to organise and provide SGI (EC 2007b). This inclusion could make the possibility of approving a Charter for SGI more likely. However, this requires political will. Interestingly, there are ongoing proposals to approve a Charter on the Rights of Energy Consumers (EC, 2007d). This charter, which will not constitute a legal document, mainly focuses on problems consumers may have when the market does not work (difficulties in switching provider, lack of choice, intelligibility of the utility bill and so on). There is only residual attention to ensuring all citizens have a right to public services. The division of sectors into mini-Charters must be viewed with caution: it may signal the beginning, or the end, of the debate on consumerism, at the expense of citizen rights.
Bibliography

AHARONI, Y., 1986, The Evolution and Management of State-Owned Enterprises, Cambridge, Mass: Ballinger.

BALANYÁ, B. et al., 2000, Europe Inc: Regional and Global Restructuring and the Rise of Corporate Power, London: Pluto Press.

CEEP, 2004, “Service of General Interest: A Chance for an Integrated Europe”, XVIth Congress, Leipzig, 16-18 June, Leipzig.

CEEP, 2002, “Declaration on Services of General Interest for the European Council of Barcelona”, Brussels: CEEP.

CEEP, 2000, “Opinion: What European evaluation of the performance of the services of general economic interest?”, Brussels: CEEP.

CEEP, 1995, “Europa: Competencia y servicio publico”, Brussels: CEEP.

CEEP, 1984, “Public Enterprise in the European Economic Community”, Brussels: CEEP.

CEEP and ETUC, 2000, “Proposal for a Charter for Services of General Interest”, Brussels: CEEP and ETUC.

CLIFTON, J., COMÍN, F. & DÍAZ-FUENTES, D., 2003, Privatization in the European Union: Public Enterprise and Integration, Dordrecht/Boston: Kluwer.

CLIFTON, J., COMÍN, F. & DÍAZ-FUENTES, D., 2005, “Empowering Europe´s Citizens? On the prospects for the Charter of Services of General Interest”. Public Management Review, Volume 7 (3), 417-443.

CLIFTON, J., COMÍN, F. AND DÍAZ FUENTES, D., 2004), “Reconceptualising Public Services after Integration: States, Markets and Entitlements in the European Union”, W-2004/8, Bruges: United Nations University-CRIS.

CLIFTON, J., COMÍN, F., & DÍAZ-FUENTES, D., 2006, “Privatization in the European Union: Ideological, pragmatic, inevitable?” Journal of European Public Policy, Volume 13, No. 5, 736-756.

CLIFTON, J., COMÍN, F., & DÍAZ-FUENTES, D., eds, 2007, Transforming public enterprise in Europe and North America: Networks, Integration and Transnationalisation, London: Palgrave-Macmillan.

CLIFTON, J., COMÍN, F., & DÍAZ-FUENTES, D., 2008, “The Rise of the New Public Service Transnationals: European or Global Phenomenon? in Schröter, H., ed. In Search of the European Enterprise, Berlin: Springer.
COMÍN, F. AND DÍAZ FUENTES, D., 2004, Las empresas públicas en Europa, Síntesis, Madrid.

COSTAS COMESAÑA, A., 2007, “De consumidor a ciudadano: el papel de la satisfacción del ciudadano en la sostenibilidad de los mercados de servicios públicos”, Información Comercial Española: Revista de Economía, 33-50

DAMJANOVIC, D., 2007, “The EC market rules as socio-cultural policy instruments in Europe: A normative analysis”. Paper presented at the conference “An alternative to the market. The social, political and economic role of public services”, Workshop II: EU policies on public services: stock taking and critical assessment, organised by ETUI-REHS, EPSU, SALTSA Brussels, November 19-20, 2007

EC, 1996, Communication on SGI

EC, 1997, Eurobarometer 47.0: L’Europe des Consommateurs, Les Citoyens face a l’ouverture a la concurrence des monopoles de services public.

EC, 2000a, Eurobarometer 53 : Les Européens et les services d’intérêt généraux.

EC, 2000b, Communication on Services of General Interest in Europe.

EC, 2001, Communication from the Commission on the application of State aid rules to public service broadcasting.

EC, 2002a, Eurobarometer 58: Consumers´ opinions about Services of General Interest.

EC, 2002b, Etude sur les services d’interet economique general aupres des citoyens des 15 pays.

EC, 2002c, Methodological note for the horizontal evaluation of services of general economic interest COM (2002)331.

EC, 2003a, CCEB Eurobarometer European Consumers and services of general interest.

EC, 2003b, European Consumers and Services of General Interest: Qualitative Study.

EC, 2003c, Flash Eurobarometer 150: La qualité des services.

EC, 2003d, Green Paper on Services of General Interest.
http://www.europa.eu.int/eur-lex/en/com/gpr/2003/com2003_0270en01.pdf

EC, 2004a, White Paper on Services of General Interest
http://europa.eu.int/comm/secretariat_general/services_general_interest/docs/com2004_374_en.pdf
EC, 2004b, Horizontal evaluation of the performance of network industries providing SGEI

EC, 2005a, Eurobarometer 219 Consumers opinions on Services of General Interest

EC, 2005b, Horizontal evaluation of the performance of network industries providing Services of General Economic Interest

EC, 2006a, Evaluation of the Performance of Network Industries Providing Services of General Economic Interest

EC, 2006b, Communication on Social Services of General Interest

EC, 2007a, Eurobarometer 260, Consumers opinions on Services of General Interest

EC, 2007b, Horizontal evaluation of the performance of network industries providing SGEI,

EC, 2007c, European Consumers’ Opinions On Certain Services Of General Interest Qualitative Study In the 25 Member States

EC, 2007d, Communication from the Commission: Towards a European Charter on the Rights of Energy Consumers http://ec.europa.eu/energy/energy_policy/consumers/doc/2007_07_05_comm_386_en.pdf

EC, 2008 Consolidated Versions of the Treaty on European Union and the Treaty on the Functioning of the European Union http://eur-lex.europa.eu/OJHtml.do?uri=OJ:C:2008:115:SOM:EN:HTML

EPSU, ETF, ETUCE, 2003, “Services of General Interest and the European Convention”.

FLORIO, M., 2007, “Electricity Prices as Signals for the Evaluation of Reforms: An Empirical Analysis of Four European Countries”, International Review of Applied Economics, Vol. 21, 1, 1–27.

GALAMBOS, W. (2000) “State-owned enterprises in a hostile environment” in Toninelli, P. E. ed., The rise and fall of State-owned enterprise in the western world, Cambridge: Cambridge University Press.

HELM, D. (2007) ed. The new energy paradigm, Oxford: Oxford University Press.

HÉRITIER, A., 2002, “Public-interest services revisited”, Journal of European Public Policy 9:6, 995-1019.

HIRSCHMAN, A., 1970, Exit, voice and loyalty: Responses to decline in firms, organizations and states, Cambridge: Harvard University Press.
HIRSCHMAN, A., 1982, Shifting involvements: private interest and public action, Princeton: Princeton University Press

HOOD, C., 1991, “A Public Management for all Seasons?” Public Administration, 69:1, 3-19.

ITU, 2006, World Telecommunications/ICT Development Report 2006: Measuring ICT for social and economic development, Geneva.

KAUL, I., 2003, “Redefining Public Goods: Why, How and to What Effects?” Paper presented at the UNU-CRIS International Conference on Global Public Goods and Regional Integration. UNU Bruges, November 20-21.

KRUGMAN, P. (1997) “What should trade negotiators negotiate about?” Journal of Economic Literature XXXV 113-20

LOUIS, V.-J, RODRIGUES, S., 2006, eds, Les services d’intérêt économique général et l’Union européenne, Brussels : Bruylant.

MAJONE, G. (1996) Regulating Europe, London: Routledge.

MANGENOT, M., 2005, ed., Administrations publiques et services d’intérêt général: quelle européanisation, Maastricht: European Institute of Public Administration.

MEGGINSON, B., and NETTER, J. (2001) “From state to market: a survey of empirical studies on privatization”, Journal of Economic Literature, 39, 321-89

NEWBERY, D., 2007, “What are the issues in Merger and Acquisitions Arising from Electricity Market Restructuring?” Working Paper of the European University Institute, RSCAS

NEWBERY, D., 2004, “Privatising Network Industries”, CESIFO Working Paper 1132, Category 9 Industrial Organisation.

PELKMANS, J. (2006) Economic Integration, third edition, London/New York: Financial Times/Prentice Hall.

PROSSER, T., 2005, The limits of competition law: markets and public services, Oxford: Oxford University Press.

RAZA, W., 2007, “The liberalization of Trade in Services in the WTO: Implications for Public Services in the EU”. Paper presented at the conference “An alternative to the market: The social, political and economic role of public services in Europe” ETUI-REHS, EPSU, SALTSA, Brussels, November 19-20, 2007.

SCHRÖTER, H., 2008, ed. In Search of the European Enterprise Berlin: Springer.

THATCHER, M, HÉRITIER, A., 2002, eds., “Analysing regulatory reform in Europe: special issue”. Journal of European public policy 9(6).
TINBERGEN, J. (1954) International economic integration, second edition, Elsevier

UNCTAD (2004) World Investment Report, Geneva: UNCTAD.

UNCTAD (2008) World Investment Report, Geneva: UNCTAD.

1 OFTEL was established in the UK in 1984, the Autorité de Régulation des Télécommunications in France in 1997, the Regulierungsbehörde in Germany in 1998, and the Autorità per le garanzie nelle comunicazioni in Italy in 1998.

2 Interview with Dr. Francisco Caballero Sanz, Head of Unit, Economic Analysis and Evaluation, DG Internal Market, 18 February 2005.

3 Correspondence on 23rd February 2005 with Dr Francisco Caballero Sanz, Head of Unit, Economic Analysis and Evaluation, DG Internal Market.

4 Unfortunately, because the questionnaire provided three possible answers (good, bad or neither good nor bad) for respondents, it is difficult to compare these results with the following polls (where those surveyed were offered four possible options).

5 “Consumers benefit as market opening leads to better performing network industries. The performance of network industries, such as telecommunications, transport and utilities has continued to improve and consumers are generally satisfied, according to a European Commission report. The opening up of these industries to competition has benefited users by putting pressure on service providers to keep their costs and prices down. Access to services at affordable prices for the less well off is also improving” (EC, 2007b).

6 “In some Member States delays in market opening and in removing legal and technical barriers to new entrants have held performance back and competition is developing only slowly in postal services, the railways and the energy sector (EC, 2007b).

7 “Other indicators of market integration relate to the intensity of M&A activity… one would expect two absolute effects in the M&A trends in the EU network industries.. firstly, ..an increase in networks M&A activity .. secondly, as result of reduced market barriers an increase in the share of EU cross border M&A” (EC, 2007b).