

OECD REVIEWS OF REGULATORY REFORM

REGULATORY REFORM IN SWITZERLAND

**REGULATORY AUTHORITIES
FOR AIR TRANSPORT, RAILWAYS,
TELECOMMUNICATIONS AND POSTAL SERVICES**



ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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FOREWORD

Regulatory reform has emerged as an important policy area in OECD and non-OECD countries. For regulatory reforms to be beneficial, the regulatory regimes need to be transparent, coherent, and comprehensive, spanning from establishing the appropriate institutional framework to liberalising network industries, advocating and enforcing competition policy and law and opening external and internal markets to trade and investment.

This report on *Regulatory Authorities* analyses the institutional set-up and use of policy instruments in Switzerland. It also includes the country-specific policy recommendations developed by the OECD during the review process.

The report was prepared for *The OECD Review of Regulatory Reform in Switzerland* published in March 2006. The Review is one of a series of country reports carried out under the OECD's Regulatory Reform Programme, in response to the 1997 mandate by OECD Ministers.

Since then, the OECD has assessed regulatory policies in 22 member countries as part of its Regulatory Reform programme. The Programme aims at assisting governments to improve regulatory quality — that is, to reform regulations to foster competition, innovation, economic growth and important social objectives. It assesses country's progresses relative to the principles endorsed by member countries in the 1997 *OECD Report on Regulatory Reform*.

The country reviews follow a multi-disciplinary approach and focus on the government's capacity to manage regulatory reform, on competition policy and enforcement, on market openness, specific sectors such as telecommunications, and on the domestic macro-economic context.

This report was prepared by Stephane Jacobzone, with the collaboration of Fabienne Cerri in the Public Governance and Territorial Development Directorate. Lisa Heldwein also provided very valuable research assistance at the start of this project. It benefited from extensive comments provided by colleagues throughout the OECD Secretariat, as well as close consultations with a wide range of government officials, parliamentarians, business and trade union representatives, consumer groups, and academic experts in Switzerland. The report was peer reviewed by the 30 member countries of the OECD. It is published under the authority of the OECD Secretary-General.

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SUMMARY

This report analyses the governance and context of regulation in four sectors of the Swiss economy, *i.e.* air transport, including the Federal Office for Civil Aviation (FOCA), rail transport, including the Federal Office of Transport (FOT), the postal sector, including the regulatory authority *PostReg*, and the telecommunications sector, including the Federal Office for Communications (OFCOM), and the Federal Communications Commission (ComCom). The analysis is conducted in an international perspective in the light of the trend towards establishing independent regulatory authorities observed in a large number of OECD countries.

Switzerland enjoys a high level of quality services in these sectors, ranking at the very top, for example, in terms of consumption of postal services and connection to telecommunication services. The railway sector is highly developed not only with regard to passenger transport but also goods transport, which is relatively open. In the field of air transport, the bilateral agreement with the European Union ensures considerable openness to competition and full compatibility of the regulatory framework. However, tariffs sometimes remain high, especially for mobile telecommunication services and Internet. The postal market remains comparatively closed. In the field of air transport, major reforms have been undertaken to improve further the level of safety provided.

Economic liberalisation is a key element in Switzerland's strategy for improving the long-term growth of its economy. The sectors covered in this study have been liberalised in the recent period in relation with European trends, even though the measures taken have often been of a fragmentary nature and the pace of change is slower than in neighbouring countries. The changes are also influenced by a specific governance framework in which direct democracy and attachment to public services play an important role.

The institutional basis of the authorities sometimes remains limited, even though they can play a key role in the development of a balanced market while at the same time ensuring that socially desirable objectives are respected. The independence and/or powers of these authorities have sometimes remained less developed than is the case in other comparable countries. Until recently, ComCom only had limited powers in terms of interconnection and local loop unbundling. The fact that there is a Price Inspector creates a specific context in which certain functions performed by independent regulators in other countries are carried out by this authority, but using different procedures. Relations with the Competition Commission (Comco) have only been formalised in the field of telecommunications, where they have functioned satisfactorily. The current organisation of the judicial system has resulted in some uncertainties, hindering the efforts made by certain authorities, including ComCom, to change the market framework within the current regulatory context. Consumer protection remains relatively undeveloped.

These authorities benefit from the Swiss institutional context, which is conducive to consultation, transparency, consensus and accountability. The practice of performance evaluation is highly developed, even though it shows uneven results across sectors. The authorities procure high-quality information on the regulatory framework and on the impact of their decisions if need be. In some cases, the organisation of responsibilities between bodies, for example in the field of the regulation of telecommunications and postal services, results in complex forms of institutional organisation, which poses a risk to efficiency and rapidity in some cases.

The report concludes by providing public policy options aimed at reinforcing the independence and powers of these authorities while improving the overall effectiveness and clarity of the regulatory system.

INTRODUCTION

Recent trends and the drivers of change

The regulated sectors covered by this study have been undergoing changes and liberalisation measures in recent years, often in conjunction with European trends. However, the liberalisation measures are often being implemented more slowly in Switzerland than in neighbouring countries. The changes taking place are also influenced by Switzerland's specific governance framework in which direct democracy plays an important role in the defining of policies, either implicitly beforehand or more directly at a later stage. The recent examples of referenda on postal and electrical services illustrate the influence of the system of direct democracy on network activities, including in the related electricity sector. All this is taking place against a background of a strong attachment to public services, in which the nature of the debate is often similar to that in neighbouring European countries such as France, but is marked by a certain rural character specific to Switzerland, which means that there is a high level of involvement at the canton level and great sensitivity to geographic equity. The issue of public services is a cross-cutting aspect of the issues addressed in this study.

Another aspect of the recent reforms is the ad hoc character of the reforms implemented. There is still not a unified approach to regulatory authorities in Switzerland. There has often been a strong tendency not to establish regulatory authorities as such through legislation, so as to leave the administration greater leeway to settle this matter through ordinances. However, this approach has the major disadvantage of giving only a limited institutional basis to the institutions created. It would also seem that the potential contribution that regulatory authorities could make to preserving key aspects of public services, to which citizens are attached, has not always been explicitly put forward in recent discussions on reforms.

An evolving European context

The changes in the economic structures of Switzerland are strongly influenced by European trends. Co-operation between Switzerland and the European Union has been marked by a number of bilateral agreements. In the 1980s and 1990s, Switzerland participated in the negotiations on the agreement on the European Economic Area (EEA), as did Norway, but accession to this agreement was rejected by referendum. Co-operation between the authorities and European structures has been continued through bilateral agreements, with a constant concern for evolving towards a regulatory framework that will be compatible with the European framework. As a result, bilateral agreements have been signed in the field of air transport and for road and rail transport, with agreements signed in 1999, approved in 2000, and ratified in 2002 by the European Union (cf. Box).

The recent time frame gives an idea of the slowness of the process, even though the European framework is rapidly changing. The construction of the single market required major changes to liberalise basic services. Consequently, European directives set clear standards for the regulation of the sectors covered by the study, and even for the establishment of independent decision-making and regulatory bodies. On the other hand, countries have been left considerable latitude in implementing this framework in the light of the specific features of their institutional apparatus.

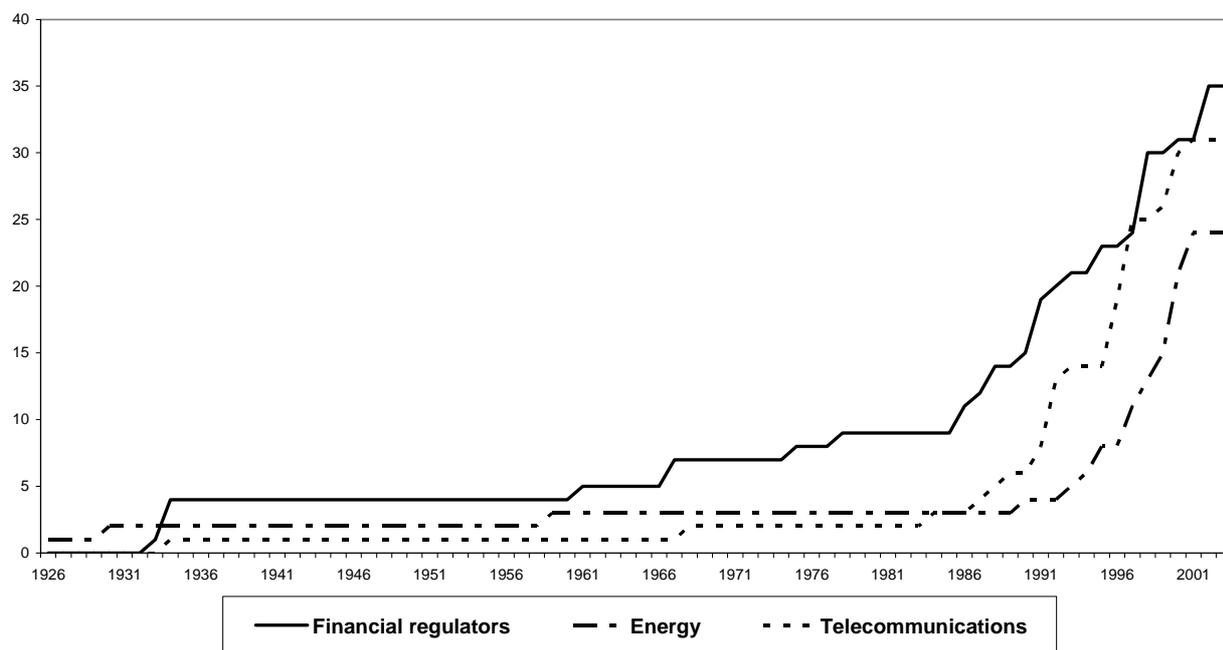
It is vital for Switzerland to ensure that its basic infrastructure services are well integrated within a European framework. This is true, of course, in the field of rail transport, where the heavy infrastructure constructed within the country only makes sense if it makes it possible to act as a central axis in Europe. Similarly, in the field of air transport, the Swiss domestic area in itself has only a limited economic

relevance. It is very important for a country whose industry and high-value added services include a number of front-ranking multinational corporations to have high-quality connections with the rest of the world.

The challenge of establishing independent regulatory authorities

The setting up of independent regulators is a common challenge faced by OECD countries in modernising their regulatory framework. The establishment of independent authorities, operating outside the chain of command of executive power in the strict sense, is part of a trend aimed at clarifying the functions of the central government, since its regulatory function must be distinct from its public strategy and ownership functions. The goal is to ensure independent regulatory decision-making that is protected from specific private interests and short-term political considerations. For this purpose, independent regulatory authorities have been established for many sectors in network industries such as telecommunications, energy and transport. In Europe and in the countries affected by the development of common policies at the European level, this trend is driven specifically by the implementation of European directives and the Community *acquis*. These agencies have been established following the introduction of competition into monopoly sectors such as energy and telecommunications and the opening of the capital of State-owned enterprises, and in other sectors in which specific prudential supervision is required, such as financial services.

Figure 1. Independent regulatory authorities (IRA) in OECD member countries



Source: Data from the OECD inventory on independent regulatory authorities (OECD 2005), extending the results of Gilardi, 2003.

From a perspective of public governance, independent regulatory authorities are agencies, endowed with significant powers and which have a certain degree of autonomy in their decision-making process. This corresponds to a further stage in the decentralised method of public management, which has been

promoted through New Public Management. However, independent regulators differ significantly from decentralised agencies because of their independence in decision-making, which is greater than is the case for decentralised management, and the fact that they enjoy delegated powers, which are traditionally a prerogative of the executive.

The advantage of independent regulatory authorities is that they ensure that regulatory activities are shielded from short-term political considerations and the influence of special private or public interests, in particular those of the regulated enterprises. However, these structures must be introduced in conjunction with coherent and timely structural reforms if they are to be effective. Independence is a guarantee of the transparency, predictability and quality of decision-making. It is in the sectors in which independent regulators have been established that economic benefits of more open markets have often been most evident, both in terms of investment and lower relative prices for consumers. Regulatory structures have unquestionably contributed to technological progress and innovation in a number of sectors.

However, independent regulators, understood as authorities endowed with specific powers, pose specific problems in Switzerland, as in other OECD countries, since these agencies differ considerably from decentralised government administration in the traditional sense of the term. They pose specific challenges, for in many democratic systems it is a very sensitive matter to establish “non-majoritarian institutions” under the responsibility of the executive, but not necessarily placed under the direct hierarchical supervision of ministries as is the case for Swiss “Offices”.¹ Furthermore, these agencies must be endowed with specific governance and institutional structures, as well as an appropriate framework for accountability. An approach based on regulatory quality provides an adequate analytical framework adopted in the OECD’s work.

The establishment of very specific independent regulatory authorities within a narrow sector might sometimes “slow structural change” or interfere with intersectoral governance. There is also a risk of “capture” of regulatory agencies by the operators that they are supposed to regulate, which might cause them to lose their overall perspective of the market. This is particularly true when the supervision is limited to one aspect or segment of the market. Next, their relations with the competition authorities must be fine-tuned, since there is a risk of fragmentation of government policies and measures, with corresponding dysfunctions due to the lack of co-ordination.

For independent regulatory authorities to provide the benefits expected of an optimal regulatory system, there must be a well-thought out institutional organisation. The political, institutional and administrative implications of independence are not always grasped fully. This independence must go hand in hand with a number of procedural conditions and a system of checks and balances. An effective appeal system, but that does not paralyse the action of regulators, is an important element for responsibilities to be exercised properly. For all these reasons, it seems essential to give the utmost attention to the design and implementation of these bodies, and to conduct periodically performance evaluations and reviews.

The institutional framework of regulation in Switzerland

At a higher level, a number of activities are mentioned in the Constitution, which defines the powers that belong respectively to the Confederation and the cantons. The Constitution includes a number of important aspects concerning infrastructure, particularly with regard to alpine transit, which must be carried out by rail (Art. 84), and general responsibility for transport (Art. 87) and postal and telecommunication services (Art. 92). The Constitution also lays down that there must be adequate universal service in the field of postal and telecommunication services. However, these provisions in no way determine the type of organisation that may be adopted at the administrative level.

The “offices” characteristic of the Swiss public administration are a good illustration of a partially decentralised method of management. At first glance, the framework of Swiss public governance, with this form of administration by agency, seems to be partly akin to the philosophy of the new public management, emphasising decentralisation and a differentiated governance structure so as to “improve the effectiveness and efficiency of government entities invested with special functions” and to “strengthen the legitimacy and expertise of decision-making”. Nevertheless, these offices cannot be considered as being the same as independent regulatory authorities.

The independent bodies that have been set up, such as ComCom or the Railways Arbitration Commission (RACO), have the status of extra-parliamentary commissions. However, this is a general status that is also given to many other consultative and quasi-judicial bodies. Federal laws currently do not make a clear distinction between decentralised administrations that are simply a delegated form of the central government administration and are under its supervision, and independent regulatory authorities that have real decision-making and regulatory powers and enjoy a certain degree of independence.

Box 1. Independent regulatory authorities in the OECD’s work

In its work, the OECD has examined independent regulatory authorities from a number of different standpoints.¹ The 1997 recommendations advised governments in particular to “create effective and credible mechanisms inside the government for managing and co-ordinating regulation and its reform”. In its reviews of regulatory quality (2002d), the OECD “welcomed the move to establish independent bodies” since, in many respects, it is the best way of improving regulatory efficiency. There is every reason to expect that specialised and more autonomous regulatory authorities will make faster and higher quality regulatory decisions, and that they will operate more transparently and accountably. In the cases in which they have proved to be the most effective and credible, their independence and role were determined by specific legislation clearly defining their mission and objectives. However, it is essential to solve the key problems of institutional architecture in order fully reap the benefits of establishing independent regulators, given the risks mentioned above. These issues have led the OECD call for “comprehensive reviews of the functioning of the independent regulatory bodies to identify problems and develop consistent solutions. More work by the OECD itself to monitor and assess best practices in the design of these important regulatory institutions would further assist countries in ensuring that they yield the expected benefits in market performance, while respecting norms of transparency and accountability”.²

More recently, the OECD has conducted reviews of the regulatory authorities in the regulatory reviews of Norway and Mexico. A specific workshop was also organised on this topic in 2005 (OECD 2005). The new OECD recommendations adopted in 2005 stipulate that steps must be taken to “ensure that regulations, regulatory institutions charged with implementation, and regulatory processes are transparent and non-discriminatory”, specifying that it is necessary to “establish regulatory arrangements that ensure that the public interest is not subordinated to those of regulated entities and stakeholders” and to “ensure that regulatory institutions are accountable and transparent, and include measures to promote integrity.”

Independent regulatory authorities are institutions that make it possible to implement regulations in a transparent and non-discriminatory way, ensuring that the public interest is not subordinated to special interests, and they are directly targeted by these recommendations, which also call for clear conditions of accountability.

1. OECD (2002), “Improving the institutional basis for sectoral regulators”, *OECD Journal on Budgeting*, Paris; OECD (2002), *Distributed Public Governance: Agencies, Authorities and other Government Bodies*; *OECD Journal of Competition Law and Policy*, n° 1, 3, 169-246; “Relations between regulators and competition agencies”, Competition Policy Roundtables n° 22, Paris; OECD (2000), “Telecommunications regulations: institutional structures and responsibilities”, Paris, 25 May.

2. See OECD (2002d).

All this is no doubt reflects the specific requirements of the Swiss institutional and federal framework, which has an administration that is traditionally limited in size and is highly accountable both because of parliamentary oversight and the many possibilities for referenda. In addition, there is still no overall philosophy of the regulatory framework as a whole. The objectives, the institutional design and the mandates of specific regulatory authorities are defined in ad hoc legislation and at times in ordinances,

which are of an infra-legal nature. The authorities whose responsibilities are established through a mere ordinance, such as PostReg, necessarily have more limited autonomy than those whose mandate is defined in legislation, such as ComCom.

Box 2. Decentralised federal administration in Switzerland

The Swiss federal administration comprises a number of decentralised administrations, only some of which are regulatory bodies.

Chancellery	Economic Affairs
Federal Data Protection Commissioner	Competition Commission
Foreign Affairs	DETEC (Environment, Transport, Energy, Communications)
Presence Switzerland	Aircraft Accident Investigation Bureau
Home Affairs	Railway Accident Investigation Bureau
Federal polytechnic schools (and others)	Independent Complaints Authority for Radio and Television
Federal Institute for Forest, Snow and Landscape Research	Federal Aircraft Accident Commission
Federal Laboratory for Materials Testing and Research	Federal Communications Commission
Federal Institute for Environmental Science and Technology	Railways Arbitration Commission
Swissmedic, Swiss Institute for Therapeutic Products	Service Responsible for the Monitoring of Correspondence by Post and Telecommunications
Justice and Police	Finance
Swiss Institute of Comparative Law	Swiss Alcohol Board
Federal Institute of Intellectual Property	Federal Audit Office
Office of the Prosecutor General of the Swiss Confederation	Federal Banking Commission
	Federal Pension Fund PUBLICA

Note: Price monitoring is carried out by the central administration of the Department of Economic Affairs. The federal offices responsible for civil aviation, communications, energy and transport are part of the central administration of DETEC. The postal regulatory authority is part of the central administration, attached to the General Secretariat of DETEC

Source: Ordinance on the Organisation of the Government and the Administration, 25 November 1998, RS 172.010.1

Lastly, the issue of independent regulation, which is aimed at clarifying the relationship between the State as a regulator and as a shareholder, also requires in the same way a new approach and clear rules of governance for publicly-owned enterprises. This can include strategic objectives assigned by supervisory authorities, and goes hand in hand with the full exercise of its shareholder rights by the State. The problem exists in other OECD countries, such as France, where much thought has been given to clarifying the conditions of management of State-owned enterprises and a formal solution has been developed through planning contracts since the beginning of the 1980s.²

In Switzerland, the strategic management of the main State-owned enterprises in the telecommunications, postal and railways sectors is being conducted in the framework of four-year strategic objectives set by the Confederation, which must be distinguished from the actual service mandate mentioned in laws and ordinances and which lays down the conditions for basic service provision. In this regard, the objectives set for the Post and for Swisscom for 2002-2005 are admittedly relatively clear, but do not include any economic quantification. Contrary to the experiences of other countries, Swisscom's objectives do not provide for a specific "price cap" or productivity requirement. On the other hand, the objectives for the Swiss Federal Railways (CFF) during the 2003-2003 period, in addition to quality and security, require a productivity increase of 3% per year for passenger traffic and 5% per year for freight traffic, with an average increase of 1% per year in market share for freight traffic through the Alps. Lastly, despite the progress made, in particular towards rationalising boards of directors, data published by FTSE and ISS in a corporate governance perspective³ seem to show that there is room for further progress for Swisscom, even though these kinds of ratings are not necessarily adapted to enterprises that are mostly State-owned.

A brief summary of the authorities covered

The authorities covered by this study have key responsibilities in infrastructure sectors in Switzerland, in markets that have been unevenly liberalised in different sectors. These offices are attached to DETEC, the Federal Department of Environment, Transport, Energy and Communications. The Office for Civil Aviation (FOCA) and the Office of Transport (FOT) have very broad responsibilities and a long history. On the other hand, the Federal Office for Communications (OFCOM) has more specific responsibilities. The Federal Communications Commission (ComCom) is the authority whose framework and missions are closest to those of an independent regulator as found in other countries, particularly in the telecommunications sector. The role of the Railways Arbitration Commission (RACO) is very limited. ComCom's role is defined by legislation, while that of PostReg is only established through an ordinance. The role of the FOT is defined in many legislative acts that reflect the historic and institutional importance of railways in Switzerland. FOCA and OFCOM are also defined in respective legislation. Lastly, ComCom and PostReg were created in the context of the process of harmonisation with the European regulatory framework (ANNEX 1).

CURRENT TRENDS AND CHALLENGES IN THE SECTORS OF AIR AND RAIL TRANSPORT AND POSTAL AND TELECOMMUNICATIONS SERVICES

The authorities analysed in this study cover four key sectors of the Swiss economy.

The air transport sector

This sector has been the focus of major policy concerns in Switzerland. Historically, the first report to Parliament on air traffic dated from 1953 and essentially concerned financial support for Swissair. A report prepared by FOCA in 1980 was another landmark document. However, at the end of 2004 the Federal Council presented a new report that shows the great importance that the authorities attach to policies in this sector and provides an overview of the main issues at stake. In general, the aviation sector is highly developed in Switzerland in terms of aircraft per capita and intended movements (NLR 2003). There are half as many aircraft registered in Switzerland as in France and Germany, which have a population 8 and 12 times larger, and five times as many as in the Netherlands, which has a population twice as large.

Overview

The air sector is complex and highly regulated. In addition to airlines *per se*, it also includes airports, groundhandling services and air navigation services. It has now become a global sector internationally, marked by the liberalisation that started in North America with the U.S. deregulation of 1978⁴ and then in Europe in the late 1980s. This has affected the policies and regulations that prevailed in the sector during the preceding decades which were focused on issues of safety, national prestige and local development.⁵ Gonenc and Nicoletti (2000) provide a general overview of the diversity of the sector and the effects of liberalisation in OECD countries. Market conditions, occupancy rates and tariffs have generally evolved more favourably in countries where the market was open. More open competition has also facilitated market restructuring around a hub and spokes system, making possible economies of scale and scope within the sector. Having control of a major hub then became the key for companies, enabling them to integrate their network effectively at the international level (Adler Berechman 2001).

The development of competition has been facilitated by the third air package in Europe (Box 3). It has caused regular airlines to change their behaviour⁶ and has led to the emergence of low cost airlines, which have partially called into question this hub and spoke model by establishing direct routes, often from secondary airports less busy than the main hubs to which they were denied access, following an economic model allowing strong price competition.⁷ One of the key factors shown by this analysis was the degree of openness of traffic rights in terms of access to routes, as well as access to airports in peak periods (slots). The first depend on traffic rights attributed through agreements in terms of air transport services, which are often bilateral agreements, as well as rights attributed in the context of the EU for European countries. The second, the slots, depend on the ability of departure and arrival in airports to accommodate demand during peak and off-peak periods, as well as schemes for managing slots between the country concerned, Switzerland, and the departure and arrival countries. This then attracted attention to the regulatory authorities in charge of managing these slots and to how these slots were allocated. Following these developments, low-cost airlines now account for 20% of capacity within Europe and are major users of the services liberalised by the “third package”. The OECD has also played a complementary role with regard to the opening up of air cargo transport services.

The international and European dimension with the 1999 bilateral agreement

Swiss air transport is integrated into a complex set of international regulations. The international framework is determined by the Chicago Convention of 1944, on the basis of a number of bilateral agreements. The regulatory framework for international civil aviation is set up through a complex network of bilateral agreements, in which Contracting States are engaged bilaterally, and of multilateral agreements involving groups of states with common interests. The bilateral agreements often imply restrictive conditions in terms of ownership and control of the airlines, to the benefit of nationals from the contracting countries. This may have the result of reducing access to certain financial markets in certain cases. Moreover, the world conference on air transport organised by ICAO in Montreal in 2003 concluded that “States should to the extent feasible liberalise international air transport market access, air carrier access to international capital and air carrier freedom to conduct commercial activities”, and that efforts should be made to facilitate cross border ownership and control of air transport companies, under the condition of clear responsibility and control for regulatory oversight, safety and security. Switzerland has signed bilateral agreements with 130 countries which lay down the legal framework for routes with third countries. For Switzerland, the most important regional aviation market is the European market, where a single market was established in 1997 (see Box 3).

Box 3. The European market was opened to competition in three successive stages

The **first “package”** of measures, adopted in 1987, began to relax the established rules. It limited the right of governments to oppose the introduction of new tariffs. A certain degree of flexibility was made possible for sharing seating capacity between the airlines of two signatory countries of a bilateral agreement.

In 1990, the **second “package”** continued to open up the market through greater flexibility in setting prices and sharing capacity.

The **third “package”**, which is the last stage in the liberalisation of air transport, was implemented in 1993 and extended the free provision of services throughout the EU, and led to the liberalisation of cabotage in 1997, *i.e.* the right for an airline of a member State to operate a route within another member State. The main measures contained in this package are as follows:

- The market was opened up to all airlines holding a Community air carrier licence (EEC Council Regulation n° 2407/92)
- Free market access was established by EEC Regulation n° 2408/92. This regulation opened all international routes within the EU to all airlines holding a Community licence. Since 1997 access to all domestic markets has also been granted.
- Tariff liberalisation was established by EEC Regulation n° 2409/92, which stipulates that national airlines are no longer required to submit their tariffs to national authorities for approval.

In this framework, a series of measures regulate liberalisation and lay down rules to ensure a level playing field:

- The uninterrupted growth of air transport over the past decade has gradually saturated the capacity available in airports for aircraft movements, making necessary a set of transparent and non-discriminatory rules regulating **slot allocation** (Council Regulation 95/93/EC).
- The **groundhandling** market, which plays a key role in the rational use of air transport infrastructure, was the subject of a 1996 directive (Directive 96/67/EC) which gradually opened up these services to competition.
- **Computerised reservation systems** installed in travel agencies were the subject of a regulation (n°2299/89) amended in 1999 preventing large airlines from receiving special treatment.
- The **pricing systems of airports** must not be discriminatory. The European Commission is justified, according to a decision by the Court of the First Instance in 2000, in requiring that charges be non-discriminatory.
- Lastly, **State aid** is strictly regulated. The Commission, under the rules laid down by Council Regulation 659/1999, has authorised the granting of this aid as an exceptional measure to support the restructuring of airlines affected by liberalisation. Today, State aid is no longer necessary or justified.

The first bilateral agreement between Switzerland and the EU was in the field of air transport, and was signed in 1999 and entered into force in 2002. Under this partial integration agreement, Switzerland undertook to adopt the relevant Community *acquis*, the enforcement and interpretation of which are partially controlled by Community institutions. With this step, Switzerland recognised the exclusive competence of EU institutions for monitoring compliance with the rules of competition, even though each of the contracting parties remains responsible for monitoring State aid and has sovereign authority for ensuring compliance with all rules of the agreement within its territory. Bilateral agreements are managed by joint committees in which parties make decisions by common agreement on a unanimous basis. The joint committee on air transport has decision-making power as specified by the air transport agreement and which enables it to amend the annexes of the agreement, the content of which is of a technical nature, and to propose a revision of the agreement and decide whether amendments made to the legislation in question are deemed compatible with the proper functioning of the agreement. The joint committee, which meets at least once a year, has approved the immediate transposition into Swiss legislation of a number of Community acts that have entered into force in the mean time (noise abatement, security and terrorism, data exchange, safety inspections). Beyond these provisions laid down by the framework agreement, the Federal Aviation Act specifies that the Competition Commission is responsible for evaluating the compatibility of projects of the Federal Council favouring certain companies and involving State participation, and of the support measures of cantons and communes.

Difficult changes in Switzerland

In a global perspective, at the end of the 1990s before the bilateral agreement with the EU was signed, Switzerland appeared to be a relatively restricted market, comparable to the most highly regulated European markets, with a single major national carrier. The measures of effectiveness taken in this regulated environment (Gonenc Nicoletti 2000) showed performance that was at the lower end of the European average within a relatively restricted market. All this changed rapidly with the opening up of the Swiss market to international competition. Swissair then underwent adverse developments, with a bilateral negotiation of traffic rights in the period following the rejection of the EEA in 1992, before the adoption of the framework agreement between the EU and Switzerland in the air transport field.

This did not have a major impact in the context of the economic recovery of the 1990s. At that time Swissair launched a wide-reaching policy of acquisition of market shares and shareholding interest in foreign airlines, such as Belgian Sabena. At the same time, its domestic competitor, Crossair, developed rapidly, becoming a major European regional airline. This was accompanied by a relative withdrawal of the role of the State – marked by the 1997 Aviation Act – with the elimination of subsidies to airports, the abolition of the monopoly of Swissair, the withdrawal of the Confederation from Swissair's board of directors, the end of prior approval for air fares and the conclusion of open skies agreements.

As in the other OECD countries, the sharp decline in air traffic that followed the attacks of September 2001 seriously affected Swissair, the historic carrier, and led it to bankruptcy. The historic economic model of Swissair was based on high prices and high-quality service. Swissair was competing with Crossair, a regional carrier with lower costs. Swissair then merged with Crossair, receiving a loan of 1.45 billion⁸ Swiss francs paid in instalments, and a 600 million francs shareholding interest by the Confederation in the new company (Total aid is estimated at 0.5% of annual GDP). These amounts are high in relation to the country's size, although they must be viewed in the light of the special role played by the air transport sector and the fact that other European countries have also supported their flag carriers (OECD 2004). It must also be borne in mind that this failure was the largest that had ever occurred in Europe, with 191 000 weekly seats concerned, as compared with 173 000 for Sabena (Belgium) in 2001 and 123 000 for Air Liberté (France) in 2003. The new company then kept two-thirds of the aircrafts of Swissair and reduced its staff by 20%, with the Confederation keeping a minority shareholding interest. The difficulties encountered also had implications for the national airports of Basel-Mulhouse and Zurich, which

experienced a 20% drop in traffic. Taxes at the Zurich airport and air control charges were increased, while “public service” requirements (service on certain lines and to certain airports) were relaxed for the new airline.

However, the rejection of the air agreement between Germany and Switzerland by the National Council and the Council of States caused Germany to react by imposing restrictions, which limited the possibility of flying over its territory to serve Zurich airport, creating difficult conditions for Swissair’s main operating hub. The complaint lodged with the European Commission by the Confederation in June 2003 was rejected by the Commission in December 2003, and later brought before the European Court of Justice, but has remained without effect until now. The complaints filed with German courts by airport operators and by the airline Swiss have also remained without effect.

The impact of longstanding adverse market trends

Recent traffic trends were marked by a significant downturn between 2000 and 2003, with a slight recovery in 2004, accompanied by the rapid development of low-cost airlines on slots that had become vacant in Swiss airports. The market for intercontinental flights, smaller in size, became increasingly dominated by foreign airlines, of which the market share rose from 54% in 1999 to 60% in 2000 and 66% in 2003. As a result, the local Switzerland/Europe market fell by roughly 10% between 2000 and 2003. After a limited recovery in 2002, European air traffic as a whole continued to develop, with a growth rate of 2.7% in 2003 (DG TREN 2005). Switzerland, which accounts for approximately 3.5% of the European total, is the country in which the reduction in capacity was greatest between January 2002 and January 2004, falling by nearly 15%, with -10% to France, -20% to Germany, and -22% domestically.⁹ In addition, the share of first-class and business-class tickets on flights departing from Switzerland was very small on the domestic intra-European market, which accounted for most of its market potential, which also fell by 5% between 2000 and 2003. On the whole, the prices of economic fares also dropped sharply by approximately 40% for flights departing from Switzerland between the end of 2002 and the end of 2003, a development that is beneficial to consumers in terms of savings but weakens the conditions of regular airlines operating on this market and favours low-cost airlines. However, at the end of 2003, the cost per km. remained 96% higher than the European average for flights in economic class and 69% higher for flights in business class¹⁰ for flights to Western Europe. Similarly, in Switzerland flights "in economy class" to North America remained 40% more expensive than the European average.

During the most recent period, the latest data available show a recovery in the seat occupancy rates of Swiss in spring of 2005.¹¹ In addition, the development of low-cost airlines has made it possible, at least in part, to make up for the losses of traffic observed, in particular at the Basel/Mulhouse¹² airport and the Geneva airport, where Easy Jet now has 30% of market share.¹³ In this competitive environment, certain Swiss companies, such as the tour operator Kuoni, have managed to hold their own with positive results by positioning themselves at the high end of the market. The groundhandling provider Swissport, hard hit by the changes in Swiss, has also been able to preserve its activities and development at the price of a severe programme aimed at reducing costs.

In this context, Swiss can be seen as a medium-sized airlines that does not rank among the world’s 20 largest airlines, does not belong to any large international alliances and that mainly conducts its activities inside Europe, with high costs. Swiss remains an important carrier in Europe, ranking sixth in terms of destinations served, ahead of Iberia, Alitalia and SAS. The two financial years completed by Swiss in 2002 and 2003 were marked by large losses, with a negative net margin of 23% in 2002 and 17% in 2003. Staff was cut by 3 700 in 2002 and 2003. As a result, major changes became inevitable to ensure the long-term survival of the airline. During this period, Swiss also sold its groundhandling service, Gate Gourmet, which is one of the main operators in the sector, to a U.S. investment fund. Swiss was ultimately absorbed into the Lufthansa group in 2005, which marked end of the independent management of the sector in Switzerland, while making it possible to maintain Zurich’s role as a major airport.

Framework and structure of the regulatory authorities

The Federal Aviation Act,¹⁴ the first version of which dates from 1948 and which was last amended in 2004, defined FOCA's role as a department of DETEC, with general responsibility for all aspects of legislation and for the supervision of civil aviation throughout the territory of the Confederation. The act regulates the use of air space, as well as infrastructure and staff. It defines the conditions in which FOCA exercises its responsibility and in which its decisions may be appealed, together with the scope of offences and criminal prosecution. In the economic field, the act defines the possibility of providing support to the three large airports. The act also allows the Confederation to participate in the operation of airports and air transport enterprises, mentioning a general interest requirement, but without defining it precisely. At the technical level, the regulatory framework is dominated by international standards.

The airport sector

Airport infrastructure is an important factor for economic development. Within the OECD, the ECMT (2005) presented an analysis of the hub phenomenon and its implications for European airports, stressing the need for multimodal connectivity, in particular with high-speed rail lines. In addition, an analysis of competition in airport services (DAFFE/CLP(98)3) shows the benefits of independent and dynamic airport management for the efficient management of landing and take-off slots, while evaluating the potential adverse effects generated by vertical integration between central governments and airports, and the risks of conflict of interest because of an ill-suited regulatory framework. The purpose of the regulatory framework should be to make allocation processes transparent and promote the most efficient allocation possible. This may require an appropriate regulation of slot allocation, if necessary with the possibility of exchanges on secondary markets. Competition may be extended to groundhandling services, if necessary with calls for tenders or the imposition of a price cap to cover the various airport services, including landing and take-off charges, groundhandling and various concessions.

Airports represent an important sector in Switzerland, which is vital to the main cantons concerned. In 2002 the six principal airports accounted for a direct value added of 4.3 billion Swiss francs and nearly 30 000 jobs and, taking spillover effects into account, some 20 billion Swiss francs (5% of GDP) and 154 000 jobs (SIAA 2003). The majority of the flights departing from Swiss airports to Europe were provided by foreign airlines (57% in 2003) and this percentage was 66% for intercontinental flights.¹⁵ Recent trends have had significant consequences for the main Swiss airports. Traffic to Zurich has fallen sharply – by 25% between 2000 and 2003 – as the general situation of Swiss air transport has been worsened by the flight restrictions imposed by Germany. However, an increase in the charges and fees levied has made it possible to maintain profitability and turnover.

From a legal standpoint, the Confederation has entrusted the development of airport infrastructure to the cantons that have airports, while participating in development costs. Under the Federal Decree of 22 June 1945 and the Federal Act of 14 December 1984, investments have been made in the three principal national airports (Zurich, Basel-Mulhouse, Geneva) and in secondary airports (Federal Council 2004). Airports are publicly-owned entities (Zurich), with a joint system of ownership for buildings, and a semi-private regime in Geneva, with participation of the canton. However, given the sector's size and the economic context, groundhandling services are not very competitive, with one main provider (Gate Gourmet) that is a former subsidiary of Swissair. Charges are set freely by airports following ICAO guidelines, with FOCA only intervening when required to do so under the terms of the Federal Price Monitoring Act. Leasing of slots is not allowed, but only swaps.

With regard to structural and spatial planning, the Confederation is responsible for preparing a sectoral air infrastructure plan (DETEC 2000). In a perspective of sustainable economic development, the possibility of linking the various airports to high-speed train lines is also an important element.

In terms of the apportionment of responsibilities, the current situation has drawbacks that were clearly seen when Parliament rejected the air agreement with Germany, with major consequences for the canton of Zurich. There are three national airports in Switzerland: Basel-Mulhouse, Geneva and Zurich. Although Basel and Geneva have a role of serving two or three countries, with a certain number of intercontinental flights, only Zurich can be considered a major airport facility on a European scale. Sager and Graf (2001) evaluate the impact of the Zurich airport at approximately 2.3% of Swiss GDP, with an additional spillover effect for businesses as a result of attracting financial investment and international companies. The problem resides in the distribution of the economic benefits, which are highly concentrated in the Zurich region, and the environmental impact, which can extend as far as the surrounding cantons and even to southern Germany. The current configuration left the Zurich cantonal authorities to their own devices when access to German airspace for approaching flights was terminated; this was a problem that no doubt called for a co-ordinated approach at the federal level. The discussions currently under way, under the threat of a popular initiative that would limit movements to 250 000 per year and introduce a 9-hour suspension of flights at night, would have major consequences for the future of the airport over the next two decades.¹⁶

Slot management

EU Regulation 95/93 of 1999 establishes common rules for slot allocation and requires that slots be obtained in order to land or take off at airports experiencing problems of congestion. In addition, these slots must be allocated on the basis of neutral, transparent and non-discriminatory rules by an authority known as the “co-ordinator”. The decision to co-ordinate an airport is the responsibility of States. Geneva and Zurich are fully co-ordinated airports. For certain times of the day, all available slots are allocated. In Geneva, it is mainly in winter that there are problems of capacity with charter flights.

The association Slot Co-ordination Switzerland has been responsible for slot allocation since 1 April 2004, replacing the co-ordinators responsible until that date (Swiss International Air Lines and Unique Airport Zurich) (see Annex 9). It has non-profit status and is primarily financed through the charges collected by the Swiss co-ordinated airports and the Swiss airlines that serve them on the basis of the proportion of slots used. All slots used appropriately are automatically reassigned to the carrier that has been using them and that reapplies to use them again for the equivalent season under the “historic right” principle. The slots available are placed in a pool and then allocated to new carriers and other carriers already present. After its disappearance, the slots of Swissair were transferred to Crossair and then to Swiss. In Switzerland, low-cost airlines have been able to increase their presence considerably at the main airports during the recent period, even in Zurich where they account for roughly 20% of the total.

Safety and airspace management

The issue of safety is a key public policy objective in the air transport field and extends from the certification of airlines and aircraft to the manner in which airspace is managed. Although from a technical standpoint this issue is very highly regulated by international rules and standards, countries are given considerable leeway for organising their institutional approach. In Switzerland, this is one of the functions assigned to FOCA.

Airspace management is entrusted to an entity, Skyguide, which currently takes the form of a public enterprise owned by the Confederation. It is the successor to the previous system, in which safety was ensured by the Confederation out of public funds until 1988. The control services were given financial autonomy in 1996. They were incorporated in 2001 and 99.85% ownership is held by the Confederation, which is represented by DETEC and the Federal Department of Defence, Civil Protection and Sports. In addition, a specific feature of these services is that they are simultaneously responsible for civil and military airspace. Skyguide has a balanced budget objective, but is obliged to meet public service requirements (military airport services) and provide services within German airspace, for which it does not

receive adequate compensation. This therefore weakened the entity financially and the conditions of the supervision exercised by FOCA were not very clear. DETEC is both the owner of Skyguide, and therefore interested in its financial viability, as well as its regulator, through FOCA. Consequently, the conditions for accountability in the field of safety were not fully met (NLR 2003).

The unfavourable economic context experienced by the Swiss air transport sector has also been marked by serious incidents in terms of safety. The crash of an aircraft of Swissair in Canada in 1998, and accidents involving two aircraft of Crossair in 2000 and 2001, and then the collision of two aircraft over Überlingen in Germany in airspace under the responsibility of Swiss air navigation services, led DETEC to order an exhaustive audit of the safety functions performed by FOCA by the NLR Institute, which was made public in 2003 (NLR 2003).

The report pointed out the inadequacy of FOCA's resources for performing its missions, as an audit by conducted ICAO in 2000 had already shown. This had shown that relative activity in terms of safety inspections was much lower than in the Netherlands, a country of comparable size (see Annex 7), with fewer inspectors available for take-off tests, since they are also overburdened with tasks that are not safety-related. The report also stressed the fact that there is no distinction between the functions of policy formulation, economic regulation and safety regulation that formerly existed within FOCA. Lastly, the report called attention to FOCA's weakness in terms of enforcement, with a limited use of sanctions and fines.

Another difficulty concerns the management of the accident system. All countries have air accident investigation bureaux, and they must operate with a certain degree of independence (Cf. Annex 8). In Switzerland, although the Aviation Accident Investigation Bureau (AAIB) is administratively attached to DETEC, in practice it does have operational independence. What is specific to Switzerland is the fact that the analysis of accident reports is not made by the relevant bureau of AAIB, but by FOCA, and the fact that there is a separate appeals body, composed of part-time members, which is subordinate to DETEC and which can invalidate the AAIB's decisions (Annex 8). Coupled with poor communication by AAIB, this partly compromises the authority of this body, which is nevertheless indispensable. In addition, its relationship with FOCA appeared to be antagonistic, and *"dysfunctional from the standpoint of the implementation of AAIB's recommendations"*. All of this is occurring in a context in which the small size of the units involved makes operational management even more sensitive.

The data available also showed that the safety conditions of Swiss air transport had clearly deteriorated during the period considered, even though it had previously had the best record of European countries. This is reflected in the data on accidents and serious incidents between 1993 and 2003, which rose from fewer than 0.5 per 100 000 hours flown to more than 2. International comparisons from the NLR database show that during the 1980-1989 period Switzerland had the lowest accident rate in comparison with the Netherlands, Germany and France. This rate has since dropped sharply in France and has remained stable in Germany, but it has deteriorated in Switzerland so drastically that it had the worst relative performance of the four countries studied during the 1990-2002 period. Similarly, the "airprox" rate per 100 000 instrument flights rose during the 2000-2002 period in comparison with preceding periods.

The NLR report recommended appointing an individual with explicit responsibility for safety in DETEC to monitor FOCA's performance in the field of safety. The resources of FOCA and Skyguide should be increased, with a better identification of public service functions and compensation for Skyguide. It also recommended separating the safety function from that of air policy formulation within FOCA. It was asked that AAIB be able to produce and publish its own analysis regarding accidents, and that FOCA set up an early-warning system making it possible to identify risks and to management proactively. FOCA's supervisory capacity with respect to Skyguide should be boosted significantly.

However, Switzerland is not the only country that has had to face difficulties in safety management at a certain juncture. Other countries, such as the United Kingdom in 1988, as well as Australia, the Netherlands and the United States have decided to revise their regulatory framework following accidents that had revealed shortcomings.

This has resulted in a significant reorganisation of the services of the regulatory authorities, and in particular of FOCA, announced on 3 January 2005, leading FOCA's director to resign. The reforms are aimed at separating the entities in charge of safety from those responsible for air transport policy in FOCA, with an "Aeronautic Strategy and Policy" division and three divisions devoted to "Technical Safety, Air Operations Safety and Infrastructure Safety". There are also plans to recruit 60 additional members working in the field safety, so that two-thirds of the 230 experts will be working on safety issues. These structures should enable Switzerland's system to be in line with the new European Aviation Safety Agency (EASA) and to participate in the Single European Sky (see Box 4). Switzerland's formal accession to the EASA must still be approved by the Federal Chambers, and should take place in early 2006. The relevant regulations regarding Switzerland's accession to the Single European Sky will be integrated into the air transport agreement as soon as EU has enacted the initial enforcement provisions.

Box 4. Towards regulatory co-ordination of air security and harmonised management of the European Sky

1. The European Aviation Safety Agency (EASA), which started its activities in autumn 2003, will take over certain monitoring and certification tasks currently performed by national authorities. It will continue to rely on the support and specific knowledge of the various civil aviation authorities.

EASA's mission is:

- To assist European institutions in preparing legislation and enforcement measures in the field of safety monitoring
- To promote more cost-effective regulatory and certification processes
- To assist the European Commission in monitoring the enforcement of the common rules defined
- To implement the safeguards that might be required

2. The "Single European Sky" initiative is aimed at establishing a regulatory framework for organising airspace and safety at a European rather than a national level. The fact that European airspace is fragmented into a large number of national airspaces with different regulations has led to difficulties in air traffic flow. The European Commission has proposed a regulatory approach aimed at improving and strengthening safety and restructuring European airspace on the basis of air traffic flows rather than national borders.

The legislative "package" comprises four regulations:

- Framework Regulation n° 549/2004,
- Regulation n° 550/2004 on the provision of air navigation services,
- Regulation n° 551/2004 on the organisation and use of airspace,
- Regulation n° 552/2004 on the interoperability of the European Air Traffic Management network.

The railway sector

The railway sector occupies a special place in Switzerland. With 1 900 km travelled per inhabitant per year, Switzerland ranks first among OECD countries ahead of Japan. In an alpine country located in the centre of Europe, alpine transit is a major political issue. This is reflected in the Constitution, Article 84 of which specifies that transalpine freight shall be transported by rail and that the Federal Council shall take the necessary measures in this regard. This Constitutional dimension was reinforced by referendum in 1992. The importance of this issue is also reflected by the number of legislative provisions that regulate this sector, with laws on the federal railways, alpine traffic, public transport and passenger transport.

Overview

From an overall perspective, the railway sector is a unique industry that poses complex problems in terms of regulation (IDEI 2003a). It is a multi-product activity, with a potentially monopolistic cost structure, indivisibilities of inputs and outputs, public service considerations that play a role and environmental and social externalities both in terms of pollution and lives saved. The key factor is to strike a balance between preserving the economies of scale and scope inherent to the network and infrastructure *per se* and introducing of a degree of market elements and openness to competition that will make it possible to optimise the service provided using this infrastructure. The technology has changed more slowly than in telecommunications. The economies of density are high and the co-ordination of operations is more complex than in other networks, such as the air transport network. The data available on the effectiveness of various regulatory approaches still remains fragmentary (IDEI 2003), even though with regard to freight, the experience of certain countries is more conclusive. On the whole, the OECD (2004) considered that the experience with mandated access and vertical separation remains limited, with a low level of competition. This being the case, in terms of liberalisation the discussion will be focused on the market segments that have been opened up the most, in the freight sector.

The work of the ECMT (OECD) has provided a study on the regulatory reform of the freight sector (2001), followed by an ECMT round table (2003), and also more recently, a review of urban transport policies. One of the challenges for the development of freight in Europe is the possibility of developing seamless services, beyond the borders of countries, in order to maintain the efficiency and relative competitiveness of rail. The regulatory framework is aimed at ensuring the transparent and open functioning of markets and avoiding pricing abuses in cases of a local monopoly, with a sufficient level of investment.

Experiences outside Europe

The European experience should be compared with that of the United States and Australia, which have very limited regulatory regimes, with great commercial freedom, and a railway sector concentrated on long-distance freight transport. In North America, regulatory intervention has been more limited since the Staggers Rail Act of 1980, which significantly reduced the federal regulatory burden on freight transport, with the possibility of appeal if a party considers that it has been injured and government intervention in the event of a merger. Competition takes place between vertically integrated companies. The deregulation of freight transport in the United States led to a drop in prices of approximately 50%, corporate mergers resulting in higher productivity and a reduced duplication of costs and the development of seamless services nationwide (ECMT 2001). The industrial structure that has developed on this market reaps economies of scale, while keeping unnecessary regulatory intervention to a minimum. The comparative data show that in Europe traffic in tonne kilometres has generally stagnated since 1970, while it has recovered significantly in the United States since 1982 and improved markedly since 1992 (ECMT 2001). The evaluations available (Ivaldi Mc Cullough 2001) show that although vertical integration does not provide any specific technological advantage, competitive access alone does not necessarily lead to effectively competitive market results on rail markets. However, the cost ratio between freight and infrastructure, involving transaction costs, determines the appropriateness of vertical integration. In any event, railways appear to be a natural monopoly. Competitive access can be seen as a complement to administrative regulation, which is necessary with regard to the large companies operating on networks.

The Australian approach is also interesting, for it combines aspects of the European and the U.S. approach. It consists of an inter-state railway that can cross the various networks of the states of the federation, each of which has had its own regulatory structures and regimes since the reforms introduced in the early 1990. Regulation combines elements of free access, as in Europe, with the regulatory flexibility of the U.S. model. This is important for States in which the modal share of rail is large and in which freight

accounts for a large segment of traffic in relation to passenger transport, which is the case in Switzerland. The interest of the Australian approach is that it is functioning as a genuine laboratory, making it possible to evaluate alternative institutional solutions. It has been the subject of a major governmental study (Productivity Commission 1999, Owens 2003), showing that different access and regulatory regimes are necessary for different types of rail activity. The report concludes that for urban passenger networks, there is no obvious advantage to vertical separation. Management can be franchised and granted to private companies in order to keep the level of public subsidies to a minimum. For freight transport in a situation in which a local operator has a dominant market position, an access regime should be implemented, with vertical integration. For freight transport in a situation in which no operator is dominant (as in the United States), a reduced regulatory regime will suffice. Lastly, for inter-state freight transport, when there is intermodal competition and many network managers, vertical separation is recommended, with a single network manager and an access regime supervised by the competition authority. The entire regulatory regime should be subject to high-quality regulatory standards.

However, all aspects of this experience cannot be transposed directly to Europe in general, where passenger markets are also highly developed and use infrastructure. The larger geographic area of the countries mentioned in these examples also allow them to have a number of competing lines to serve freight markets. Nevertheless, interesting lessons can be drawn from this experience, in particular regarding the need for access to major infrastructure in Europe, more open competition in the field of freight and management of local transport.

The European approach

In Europe, the experiences have been mixed. Sometimes regulatory reform can also raise costs because of the fragmentation of activities and lead to insufficient levels of investment, as was also illustrated by certain aspects of the reform in the United Kingdom at the beginning of the 1990s. However, new entrants may also be more efficient than historic companies because of more flexible management methods. The choices made in the United Kingdom¹⁷ represent one of the poles of the European approach, comprising a public strategy, a separate network manager, companies operating on this network, an independent regulator responsible for safety, performance and costs, and transit rights for freight on the most frequently used train paths. On the other hand, a number of European countries remained relatively sceptical and cautious about liberalisation and the comparative advantages of vertical disintegration.

The European approach has been able to build on these experiences in order progressively to open up of the European railway market, starting with the initial directive of 1991 up to the first railway package of 2001 (see Box 5). The growth in the demand for transport following the creation of the internal market and the growing mismatch of supply – because of important bottlenecks that affect European infrastructure – have made the integration of railway systems indispensable. There was concern over the relative decline of this mode of transport, especially in the field of freight. It therefore seemed necessary to take action to revitalise the sector. This led the Commission, in a white paper of 2001, to make the railway system a key factor for sustainable growth. The objective of European policies was to facilitate seamless point-to-point transport to ensure the relative competitiveness of rail. The strategy adopted is based on three pillars: structural separation in infrastructure management, the establishment of independent regulatory authorities and third-party access to national networks.

The texts adopted contain detailed provisions on the opening up of markets for railway freight and passenger transport, network access, the interoperability of high-speed and conventional railway systems, the granting of State aid, public service obligations and the conclusion of public service contracts. All these aspects are now covered, beyond the initial directive of 1991, in three railway “packages”, of which the first two are currently in force, with a third set of provisions still under study (see Box 5). However, the complexity of the process and the slow pace of implementation clearly illustrate a number of underlying tensions.

A key element is the vertical separation of infrastructure and service management, coupled with the management of access rights and the establishment of regulatory authorities. The ECMT (2001) considers that the EU approach seems to be most appropriate in small countries that have significant trade with each other, which is the case of Switzerland. However, this approach is not necessarily welcomed by everyone in Switzerland. For example, Pfund (2002, 2003) is sceptical about the developments under way, pointing out the great variety of the institutional solutions effectively implemented in the various European countries. Free access for passenger transport still appears to be a distant prospect.¹⁸ It is most highly developed for freight. Lastly, there remains the issue of the independence of the management of train paths and access, even within an integrated framework.

In economic terms, the challenge is to obtain the efficient management of freight transport paths and to establish a non-discriminatory access pricing system for the management and pricing of infrastructure use. In the current European perspective, on the basis of evaluations conducted in the United States and Australia, this will require the intervention of independent regulatory and arbitration authorities. There are two possible solutions. The first would consist of a light-handed system of arbitration that would intervene after appeals to the courts. The second one, which has been adopted by the EU, is for an authority independent of any freight operator to have the legal authority to allocate capacities and assign train paths, even though the detailed work of timetable management and the operational management of traffic can be left to the infrastructure manager, which may belong to an integrated group. The reciprocity requirement is a useful tool for ensuring non-discrimination, by blocking the entities of countries that manage access rights in order protect their historic operator and shifting traffic towards more open countries.

Another important aspect concerns infrastructure use charges. These charges are often determined at the marginal social cost. However, studies show that this only accounts for approximately 60% of the total infrastructure costs. The rest must be covered therefore either through subsidies or through other compensation mechanisms.

An evaluation of these reforms was conducted by IDEI (2003) on the basis of World Bank panel data for the 1980-2000 period for a group of European countries, but not including Switzerland. The reforms have improved efficiency, but their effect will depend on the sequencing of the reforms. The introduction of multiple reforms in a single package has effects that are at best limited, while sequential reforms improve efficiency. The 1% growth in freight traffic also had the effect of reducing passenger traffic by 0.25%. The reforms have generally improved efficiency, in particular for small countries. Germany and Sweden seem to have seen the greatest improvement in efficiency, both for passenger and overall transport. In Germany, the possibility of third-party access enabled many competitors to enter the market, even though infrastructure and operations remain in the hands of same holding company.

Box 5. Overview of legislative trends in the European Union in the field of rail transport

The initial foundations of the modernisation of the European regulatory framework were laid by Directive 91/440/EEC of 1991, which specifies that member States must manage rail companies competitively. Companies must be independent, with a budget and an accounting system that are separate from those of the State. Also, there must be a separate accounting system for railway infrastructure and service operators. Following this initial directive, two directives were adopted in 1995 in order to define common rules. They were included and effectively implemented in the first railway package presented below.

The first railway package develops a coherent set of instruments for promoting the opening and liberalisation of networks

- **Directive 2001/12/EC** strengthens the provisions of the 1991 Directive, which granted right of access to the network, requiring member States to extend access rights to the national segment of the Trans-European Rail Freight Network. The totality of the Trans-European Rail Freight Network will be open to international freight services by 15 March 2008.
- **Directive 2001/13/EC** amends Directive 95/18/EC and sets common criteria for the licensing of rail companies established within the Union; the licences will be valid throughout the territory of the Community.
- Lastly, **Directive 2001/14/EC**, which replaces Directive 95/19/EC, defines transparent and fair rules and procedures for the allocation of train paths: the allocation and pricing of paths should not be the responsibility of companies or groups of companies active in the transport sector. It also lays down the principles for levying infrastructure charges. Lastly, the member States are required to create a regulatory body that will ensure that no candidate is discriminated against; the decisions of infrastructure managers may be appealed to this body.

Under the “second railway package”, a series of texts entered into force in 2004, which:

- Accelerate the opening of international freight transport and allow it to be extended to domestic transport (cabotage). The agreed date for the total opening up of rail freight markets is 1 January 2007 (**Directive 2004/51/EC**, amending Directive 91/440)
- Reinforce safety through **Directive 2004/49/EC**, which develops a common approach to safety and establishes a common system for safety certificates
- Allows greater interoperability through **Directive 2004/50/EC**, amending Directives 96/48/EC and 2001/16/EC
- Establishes a European Agency responsible for railway safety and interoperability (**Regulation 881/2004**) providing technical support for work on interoperability and safety

The “third railway package”, a new series of provisions is under study and contains:

- A proposal for a directive on the certification of drivers of locomotives and trains used for passenger and freight transport in the Community
- A proposal for a regulation on international rail passengers' rights
- A proposal for a directive on opening up the market for international passenger services by rail by 1 January 2010
- A proposal for a regulation on the quality of rail freight services

The Swiss strategy

In the European context, and in the light of policy and constitutional imperatives, Switzerland is pursuing a railway strategy focused on three main elements:

Major investments

Road investments accounted for nearly four-fifths of total investments in the 1960s and 1980s. A major effort was made subsequently to increase the share of railways, which amounted to nearly 40% of the total at the end of the 1990s. The strategy has also changed. Following a strategy of establishing a high-speed line on the central plateau in the 1970s (ECMT 2003), the Rail 2000 concept is aimed at improving the efficiency of the network as a whole, by connecting large cities at half-hour to one-hour intervals. The final cost of the first stage of this project is estimated at 5.9 billion francs, *i.e.* 1.5 billion less than initially planned.¹⁹ Rail 2000 was inaugurated in December 2004, and enables trains to travel as fast as 200 km/h. The capacity of facilities has been increased through electronic signalling and a new radio system which will make it possible to increase the capacity of the main lines by 30% through an investment of 3.9 billion francs.

Another major project, which is underway and partly controversial, aims at implementing a more attractive environmental policy for alpine transit. This project, which represents 16.3 billion Swiss Francs (at 1998 prices) foresees the construction of two new additional train tunnels – the new railway line through the Alps (NLFA) and the Gotthard and Lötschberg lines, where costs have proven to be larger than anticipated. This is a major project, for only four standard gauge tunnels had been built previously between 1867 (Brenner) and 1913 (Lötschberg). However, given the federal balancing budget programme, the other projects for public transport infrastructure (FTP) will be delayed and will have to be rescaled. This includes, the second stage of Rail 2000, even if the people and the cantons have approved the federal ordinance concerning the realisation and financing of public transport infrastructure projects (FTP). The other element concerns the second phase of the connection of Switzerland to the High Speed Rail Network. These cuts have generated protests in 18 cantons.²⁰ These major projects will be re-examined as part of a general review.

The investments on public transport infrastructure, amount to approximately 30.5 billion Swiss francs,²¹ making the FOT one of the offices with the largest budget of the Confederation. Railway projects receive significant popular support. For example, a competing initiative launched by automobile interests (Avanti) to expand the motorway network, which was very costly, was ultimately rejected by 62.8% of the vote on 8 February 2004.

The heavy vehicle tax

The second element is the tax on heavy vehicles, negotiated with the EU since it affects European lorries under the bilateral agreement. This tax is known as the mileage-related heavy vehicle tax (RPLP). It contributes to financing major rail projects and has been integrated in the framework of the bilateral agreement. As a result, the limit for heavy vehicles admitted for transit was raised (from 28 to 34 tonnes on 1 January 2001, and to 40 tonnes in 2005),²² which is higher than the objective previously targeted, but is coupled with clear conditions for transferring freight traffic to rail (Brändli 2003). Even though the European pressure led to an increase in the authorised weight limit, the EU has accepted as a result the introduction of the RPLP in 2005 as well as the increase of the rate of this tax on 1st January 2005.

Liberalisation of railway transport under the bilateral agreement

The third element is the liberalisation of railway transport, which is viewed in Switzerland as a means of revitalising and maintaining the sector. This has gone through a number of stages, between the first phase of reform (“railway reform 1”) and the current plans for railway reform 2. This issue will be discussed in greater detail below in the section covering the regulatory framework.

Framework and structure of the regulatory authorities

The modernisation of the regulatory framework has been carried out in stages, with an initial reorganisation in 1996, which initiated the opening up of the market and the liberalisation of access to infrastructure. The legislation was initially revised in depth through railway reform 1 in 1998, with the provisions entering into force in 1999.

One of the first consequences was the conversion of the Swiss Federal Railways (CFF) into a State-owned enterprise in 1998²³ in order to ensure the accounting and operational separation of the network and transport. Relations between the CFF and the Confederation were defined on a contractual basis through a service commitment for the 1999-2002 period, which gives the CFF operational and managerial freedom, including with regard to strategic policies, aspects relating to infrastructure maintenance and commitments regarding productivity gains. The CFF must generate profits on operations and cover infrastructure costs. A refinancing and debt conversion operation was undertaken,²⁴ as in other European countries.

The 1999 reform reflects an attempt to bring the situation in line with the first wave of European directives, Directives 91/440, 95/18 and 95/19 (see Box 5), and is consistent with the bilateral land transport agreement signed between Switzerland and the European Union in 1999, which implies that Switzerland will adopt the Community *acquis*. A joint committee was created to ensure the administration and proper enforcement of the agreement. This agreement has made it possible to implement railway reform in Switzerland that is co-ordinated with that in Europe. “Railway reform 1” covers the points required by Directive 91/440, which is aimed at ensuring that railways are separate from State administration and that competition is introduced on the railway network, especially for freight traffic. Consequently, the first stage of “railway reform 1” carried out at the beginning of 1999 provides for the separation of infrastructure and transport in terms of accounting and organisation; network access; competitive tendering, which means that deficits will no longer be covered subsequently; a partial liberalisation of freight traffic on the basis of the principle of reciprocity, which enables foreign companies to establish links with Switzerland and transit through it in partnership with a local operator.

Under the bilateral agreement and in terms of liberalisation, the focus in Switzerland has been placed on mandated non-discriminatory access. The introduction of separate accounting systems has made it possible to isolate the financing of regional transport and infrastructure (subsidised), of freight (partially subsidised) and long-distance transport (unsubsidised). The CFF has been asked to establish an organisational separation of infrastructure management within the structure of the company. Access charges have been based on variable costs to ensure equal treatment of different sized companies.

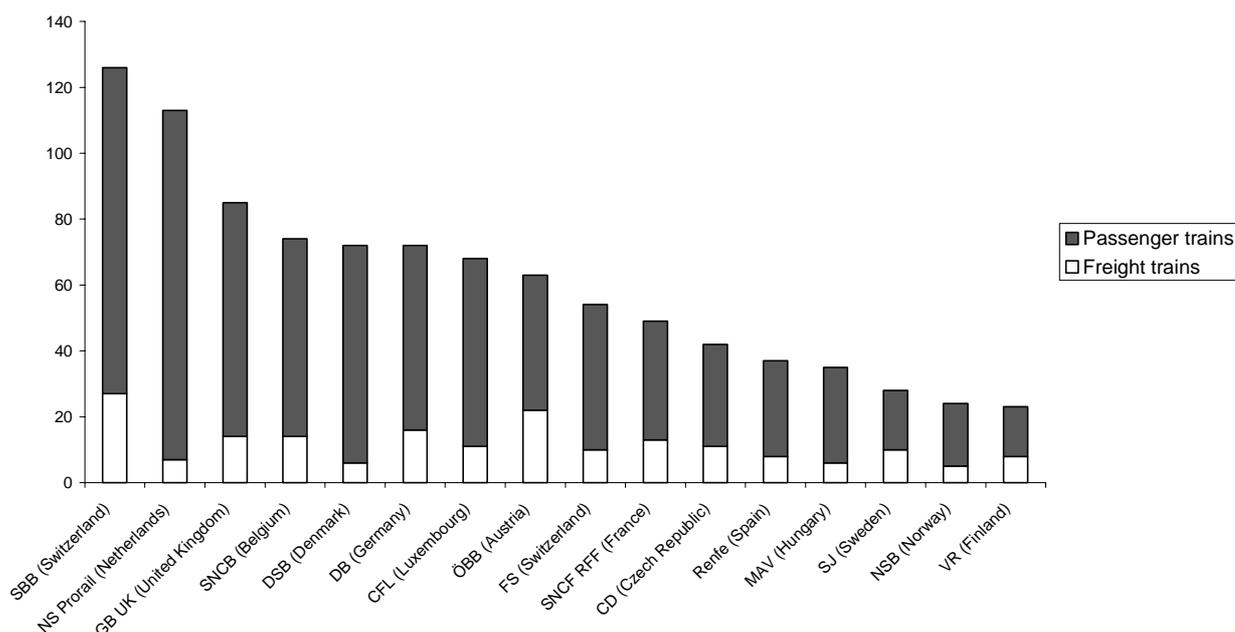
In terms of institutional regulatory structures, the FOT will retain its responsibilities in the field of safety and in terms of general matters of policy definition. With regard to safety, which is managed through the issuance of licences by the “monitoring division” and the “technical division”, 6 requirements are verified before access is granted to networks in Switzerland, on the basis of a company’s capacity to ensure safe and reliable operations, with qualified staff, adequate rolling stock, financial coverage, compliance with the collective bargaining agreements generally applicable in the sector and compliance with the safety conditions applicable to specific lines (see Annex 22). The economic aspect implies the

implementation of a light-handed regulatory framework, based simply on an arbitration commission set up since 1999 to ensure consistency with European rules. Its role remains marginal, however, with only two cases so far, which essentially involved complaints by the CFF against other companies. Access to train paths is organised by a joint office created in 2001 and managed by the two main railways, CFF and BLS (Bern-Lötschberg-Simplonbahn). The canton of Bern owns a 65% share of BLS, CFF's main competitor, and 18% is owned by the Confederation.²⁵ The price of train paths consists of a basic charge plus an additional service charge. The minimum charge is a function of the standard marginal cost and is published by the FOT. The infrastructure manager sets the contributions and charges for additional services.

Recent trends

Performance evaluation in the field of railways is complex and is based on a range of different indicators. International evaluations tend to group countries by size, since gross productivity indicators are affected by the specific characteristics of the network. The Swiss network is that of a small country with dense traffic located in the heart of Europe. The number of trains per line, at 128 per day, is the highest in Europe, ahead of the Netherlands (Chart 2). The size of the network in terms of kilometres of lines is comparable to that of the Netherlands or Belgium, and to one-fifth of the Italian or U.K. networks, one-tenth of the French and 8% of the German network.

Figure 2. Number of trains per day and per line in 2003

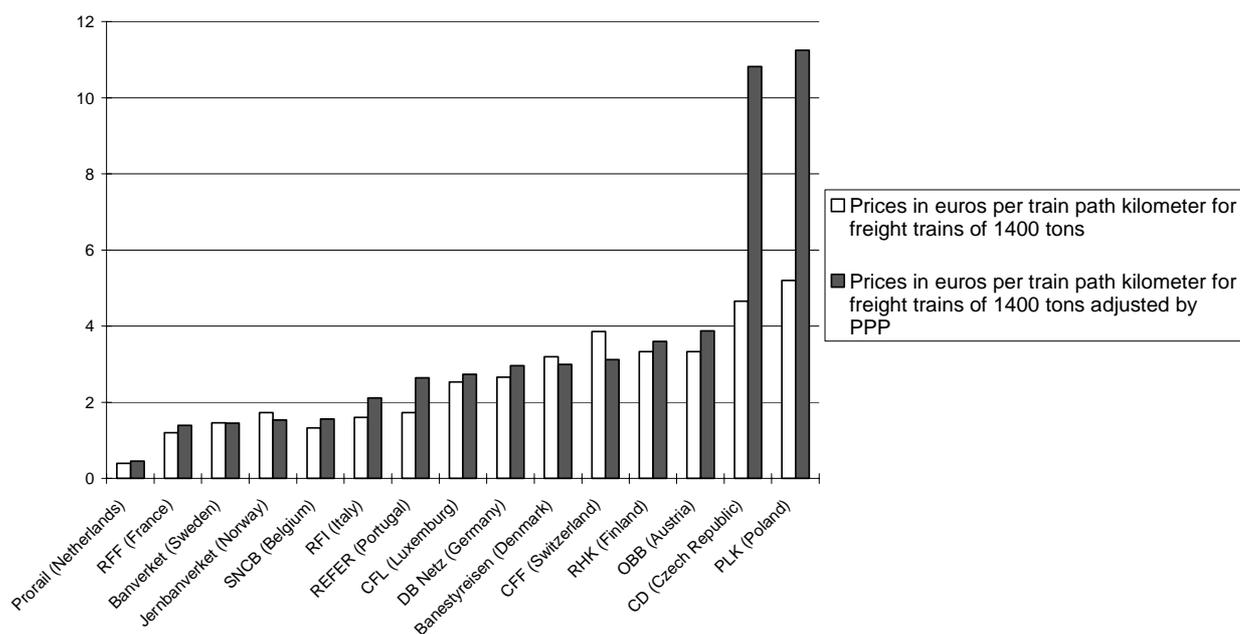


Performances can be evaluated from two standpoints. The first can be aimed at examining the extent to which the results obtained are consistent with the objectives sought. In this regard, the priority given to freight transport by rail rather than by road is reflected in the results. In Switzerland, 69% of goods were carried by rail in 1999 against 31% by road (Brändli, 2003). This contrasts sharply with Austria (24%) and France (26%). Despite the relative erosion, since rail still accounted for 93% of this traffic in 1980, the policies pursued seem to be producing tangible results. At the same time, transit traffic accounts for 24.6% of total rail traffic, and 5.5% of road traffic.

A second important element concerns restoring the economic performance of the Federal Railways (CFF) during the recent period. The increase in traffic, combined with a 15% reduction in staff during the 1985-2001 period, has made it possible to raise productivity by approximately 6% a year. It appears that these productivity gains also continued during the 2002-2004 period (CFF 2004). This being the case, the company's economic health indicators have recovered, with a smaller share of personnel costs in total expenditure and a higher rate of coverage of costs by revenues. The negative return on capital, which stood at 14% in 1985, became positive again in 2001.

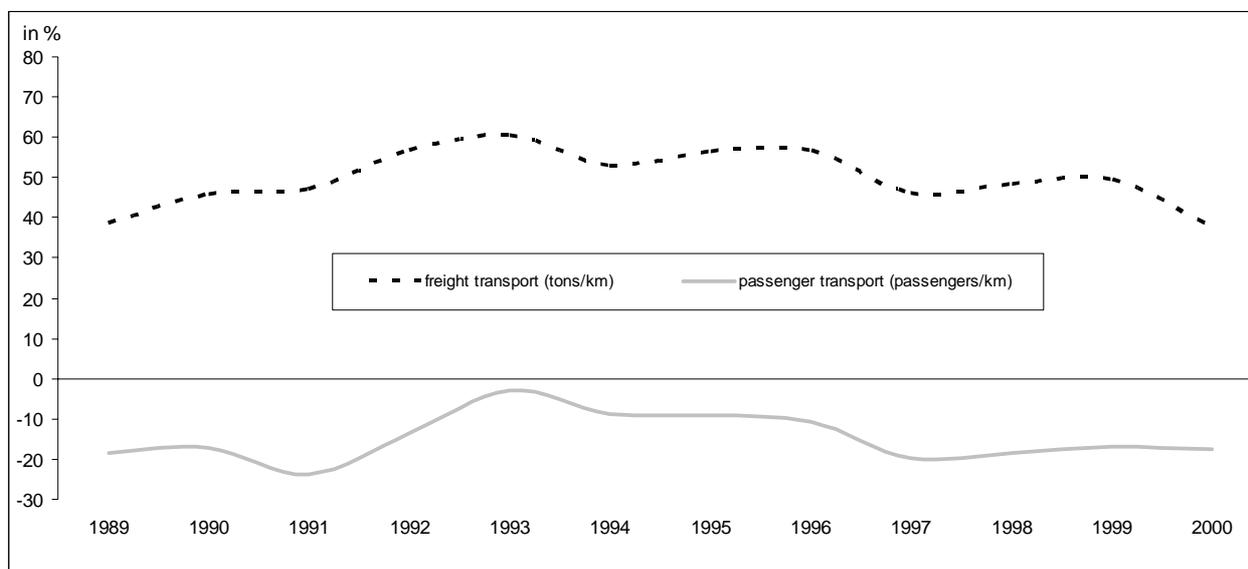
Other indicators concern the degree of market openness, prices and quality. In the liberalised freight market, the share of the historic operator's competitors has grown regularly, reaching 8.8% in 2002 and 12% in 2003, while the passenger sector remains closed. The share of train path kilometres travelled by third parties on the CFF network came to 6.5% in 2003. With regard to the price of available train paths, 2003 data showed that prices were slightly above the European average in 2003, but after adjustment for purchasing power parities they were still lower than in Finland and Austria, and barely higher than in Germany (Chart 3). Lastly, an evaluation was conducted by Vaterlaus et al (2003) that makes it possible to analyse the comparative performance of the sector in terms of relative prices, but also in terms of punctuality, safety and relative prices.

Figure 3. Price of train paths for freight trains



With regard to the relative prices of the services provided, prices for passenger transport appears to be approximately 18% lower than the European average for the countries studied in 2000 in the study by Vaterlaus et al. (2003). However, they were 38% higher than the average for the countries studied for freight, even though this percentage had fallen sharply from the 60% level reached in 1993 (Chart 4). In terms of quality, the accident rate remained constantly lower than that of comparable European countries between 1989 and 2000, and then it fell slightly. Punctuality appears to be high and stable.

Figure 4. Trend of the price of Swiss railways in an international comparison



Difference in prices in comparison to the average of the countries studied: CH, D, F, S, GB (in real terms, converted into francs at the current exchange rate).

Recent trends show a strong increase in traffic, linked to the implementation of Rail 2000 and the reorganisation of timetables, with a 7.5% rise in traffic in mid-2005 in comparison with the same period of 2004. However, this was accompanied by a growing vulnerability of the CFF, which tarnished its image of technical excellence. For example, on 23 June 2005 some 200 000 passengers were stranded because of a giant railway power failure, which was followed by a similar incident on 24 June that paralysed the French-speaking part of the country.²⁶ This was due to a failure in the electrical power supply system of CFF, which has a policy of supplying its own electricity separately from the rest of the electrical system.²⁷ The first blackout seems to have been caused to a poor assessment of electrical capacity, together with an obsolete alarm system, while the second seems to have been due to a high-tension line having been struck by lightning in the canton of Valais. A report will be submitted to DETEC by the end of August. However, this also illustrates the ambiguous situation of DETEC in this regard, which is both the regulatory authority of the sector through the FOT, which is part of DETEC since it is not an independent regulator, and the CFF, which is a public enterprise owned by the Confederation, the objectives of which are set by the Federal Council.

An open market

On the whole, the modernisation of the regulatory context in Switzerland is in step with the situation in other European countries (Annex 21). Structural separation has been restricted to the accounting level, given the arguments advanced in this regard in Switzerland, resulting in the rejection of a complete structural separation (Lalive d'Epinay, 2003; Pfund Litra, 2002). In this respect, Switzerland is in a situation similar to a number of European countries, where the separation is limited to accounting or organisational aspects. Even though in some countries the separation has been made from a strict legal standpoint, it often remains very limited in practice, given the small size and limited responsibilities of the infrastructure manager. In addition, in many countries the railway company remains a public entity that is entirely owned by the State.

In terms of access, the opening up of the Swiss market to third parties is effective with regard to freight. Although Switzerland lags slightly behind the countries that opened up earlier such as Germany, the United Kingdom, the Netherlands and Sweden, it is ahead of others where access is more recent, such

as France, where the first private train travelled on the network in spring of 2005, and Austria. There is no access to passenger transport in Switzerland as in a number of European countries, where this remains a medium-term prospect.

With regard to safety and the issuance of licenses, this is the responsibility of ministries in a number of countries, such as France, Austria, Germany and Italy. In other countries, such as Switzerland, licenses are issued by the regulator. However, this is not the case for network slots or train paths, which are currently allocated by a body controlled by the two main companies, CFF and BLS. In a number of countries, such as Italy, the Netherlands, Spain and the United Kingdom, this is carried out by the infrastructure manager, who is legally separate from the historic operator. There is no independent supervision of charges. The only independent regulatory body in the current Swiss institutional structure is the Railways Arbitration Commission (RACO). However, this very small agency, which has modest resources and has had very limited activity thus far (2 cases handled in 4 years), cannot really play an effective counterbalancing role.

Various evaluations have been made in Europe to analyse the compatibility of the institutional framework with directives and to see to what extent these have been implemented (NERA et al 2004). The results of the evaluation conducted by Steer Davis Gleave (2003) for DG TREN show that railway reform I has made it possible to implement Directive 91/440, but not Directive 96/48 on interoperability or Directives 2001/12, 2001/13 and 2001/14 of the first package. Lastly, Directive 2001/16 on interoperability has not been implemented either. Another evaluation conducted by IBM Business Consulting (2004) shows that Switzerland belongs to the group of 8 European countries for which liberalisation was deemed to be “on schedule” in 2002. With regard to the legal structure index, which comprises regulation of access, the powers of the regulatory authority and the organisational structures of the historic operator, Switzerland ranks eighth out of 25 countries, with good performance in terms of access and competition, even though it has not yet transposed the first package at the “formal” level. It provides “non-discriminatory and objective conditions of access in the freight sector”.

Greater coherence through railway reform 2

In the light of the above, in the second phase of railway reform (“railway reform 2”), Switzerland is currently negotiating with the EU regarding the adoption of the first two “railway packages” within the land transport agreement. The market remains closed to passenger transport, in particular because it is based on a system of concessions granted in a discretionary manner by the Confederation and cantons. Be that as it may, openness in this field also remains limited in EU countries and the open market for international services is scheduled for 2010. However, Switzerland must adapt its legislation and incorporate the regulations applicable to non-discriminatory access to the network. The EU is requesting in particular that the allocation and pricing of train paths not be the responsibility of companies or groups of companies active in the transport sector. Consequently, steps must be taken to establish an independent and separate service in charge of allocating and planning train paths, analysing bottlenecks in prices of train paths and setting network timetables. The adoption of the railway packages would enable Swiss railway companies to have access to the EU market more broadly and readily than is the case today.

In this context, railway reform 2 was submitted to Parliament in early 2005.²⁸ Its effect will be to amend 6 existing acts²⁹ and it will supplement the first phase of the reform and make possible this adaptation to legislative developments in the EU. It primarily concerns the following points:

- The implementation of a new regulation of the financing of infrastructure through service agreements, and a new apportionment of responsibilities between the Confederation and cantons. This is aimed at avoiding overlapping responsibilities between the Confederation in charge of the basic network and the cantons and communes, which will now be responsible for secondary lines.

- Safety service (railway police).
- Guaranty of non-discriminatory access. This is aimed at increasing the responsibilities of RACO, which will be able to open investigations on its own initiative.
- Interoperability of the European railway network. The revision of the legislation makes it possible to increase interoperability, and the consultation conducted by DETEC shows that there is unanimous support for incorporating the directives on interoperability into Swiss law. This will make it possible to use the NLFA tunnels better.
- Equal treatment, from a legal standpoint, between transport companies, in particular with regard to the guarantee of their financing.

Consequently, the reform will maintain vertical integration for reasons of economic efficiency, while creating an independent service for allocating train paths. The price of train paths is a sensitive issue, since it only covers half of costs because of the incentives provided to promote transfer policy. This service will be an institution independent of the Confederation. It is planned for it to have a board of directors. The option of whether it is to be a private corporation or a department of the federal administration remains open. Keeping it within the federal administration raises the problem of conflicts of interest since the government owns CFF. In this regard, the contributions that independent regulation can make analysed in this report and relevant practices in other sectors and other OECD countries will be valuable. This service is to have a staff of approximately 40 and a budget of 8 to 9 million francs, which will be covered by taxes on the train paths sold. However, the reform does not explicitly specify the creation of an independent regulatory body combining the regulatory functions of the FOT. Some analysts have nevertheless argued that in the Swiss administrative context, the current regulatory structure did not make it possible to clarify sufficiently the responsibilities of the State as regulator and as owner of the main company on the market.³⁰

The current regulatory structure implies that the FOT monitors network access. The role of the Competition Commission appears to be limited thus far, for there is an exclusion under Art. 3 of the Cartel Act LCart. There is an arbitration commission for disputes between users of the network and the infrastructure manager. This arbitration commission currently only acts upon request. Experience shows, however, that small companies avoid appealing to the Commission since they are afraid of reprisals by large companies, especially in fields where their co-operation is necessary (tariffs). The definition of discriminatory behaviour might also be broadened. Lastly, the arbitration commission is to act as the appellate authority for decisions by the path allocation service that involves network access. The Competition Commission, the role of which is unchanged, will be responsible for the competitive behaviour of companies having a dominant position on the market, *i.e.* for issues outside network access. Lastly, the Act changes certain aspects regarding concessions for public passenger transport (cf. *infra*).

This reform will allow foreign companies to enter the freight transport market freely. It is aimed at ensuring the efficiency and quality of railway traffic (Friedli 2003). It creates the conditions for compatibility between the Swiss institutional framework and the Community framework. Economiesuisse has called for a broader opening up of the transport sector, coupled with giving greater priority to freight (Hutzli 2003). A more open market is also supported by the sector, specifically by the *Union des Transports Publics* (Vollmer 2003). However, there is reluctance on the part of trade unions (Leuenberger 2003), which want to require compliance with the rules on working conditions when concessions for regional passenger traffic are granted.

Regional passenger transport

Over 30 small-sized companies, which are often cantonal, provide services on this market, even though the CFF has approximately 80% of the market share. The cantons were not required to have competitive bidding for these lines in the past, which can be operated by public sector companies.

In 1996, an amendment to the Railways Act introduced a service mandate system by which railway companies are only required to provide service on profitable lines or on those for which they receive a subsidy, most often from the canton. As a result, subsidies are organised as incentives to promote efficiently organised service rather than to cover existing deficits. The reform also allows subsidies to be paid to companies making profits, and thus neutralises the possibility of subsidies between public and private companies. However, it should be borne in mind that the share of regional transport remains relatively marginal in relation to that of the CFF.

Railway reform 2also will also reinforce the obligations that companies must meet in the field of passenger traffic, in terms of continuity of service, publication of fares, quality and integration of traffic. It is aimed at clarifying the responsibilities of companies and the State so as better to ensure companies' independence in relation to the contracting authorities by making them autonomous entities, separate from canton administrations. It strengthens the requirement for competitive bidding, which was only optional in the 1996 reform. It authorises companies to use profits to increase their equity capital, thereby creating a more incentive-based structure. Lastly, the reform creates the conditions for eliminating the debt of private railways, as was done for the CFF in 1999.

The postal sector

The postal sector is undergoing changes as is the case in the other OECD countries. This sector plays a significant role in the political and institutional life of Switzerland, in particular through its territorial dimension.

Overview

Postal service is a specific form of communication transport service used to transport products and information. The boundaries and definition of this service are less clear than is the case for other sectors. It comprises dense, regular point-to-point delivery over a specific region, which involves economies of scale and scope. The traditional core sector consists of letters, postcards, bills, payments and direct mail. Beyond this core, a wide range of other services are included in the postal sector in the broad sense:

- Express mail services. Because of the low density of service and rapid delivery time, this service requires special forms of delivery.
- Parcel services. The sending of parcels can be distinguished from normal postal service, for it may not involve regular traffic and a dense delivery network, especially in the case of rapid delivery.
- The delivery of unaddressed mail (advertising, newspapers). This service involves regular, dense delivery, but can be distinguished on the basis of the degree of sorting and processing required.

The majority of mail is sent by businesses, with private individuals only generating 20% of the total. On the other hand, individuals receive the majority of mail. The users/customers of mail are highly concentrated. The top 100 users often generate a significant share of mail. International mail accounts for less than 5% of the total, except in small countries. The definition of the postal market depends on the

potential rapidity of the information to be delivered and the possibility of substituting another means of communication, such as fax or e-mail. In some cases, special delivery arrangements can be made for specific communities. The postal chain of production consists of: collection, outward sorting, transportation, inward sorting and final delivery. Transportation often accounts for a very marginal share of costs, while final delivery accounts for approximately two-thirds of costs in the EU.³¹ Inward and outward sorting account for between 15 and 20% of costs.

Postal markets have historically been served by very large companies. These companies, which were long government departments in many countries, before being transformed in Switzerland as elsewhere into corporations. The definition of the market in which these corporations operate is often of a regulatory nature, since they enjoy what are known as "reserved" services, which are their exclusive responsibility, and they also provide "non-reserved" services in competition with other providers. The role of the "reserved" services is to allow the cross-subsidisation necessary to meet non-commercial obligations, also known as universal service. This most often concerns isolated geographical areas, with low population density, where the prices charged cannot cover costs.

The central issue involves the boundaries of the natural monopoly of the postal service. These are defined by regulation, but the extent to which they can be justified from an economic standpoint remains to be seen. The fact that a natural monopoly exists is confirmed by many studies on economies of scale and scope, even though the results may vary.³² Among postal activities, transportation does not seem to display any particular economies of scale. The economies of scale mainly reside in the final delivery of mail and depend on the population density. The general opinion is that a 10% growth in volume increases costs by 6 to 8%. Consequently, postal operators delivering high-density mail, as is the case in the United States³³ and Switzerland, enjoy a favourable situation that enables them to take advantage of the economies of scale associated with delivery. These economies are not as great when the delivery time is short and the delivery density is low. There are also cost complementarities between different postal services that use the same network (NERA 2004).

What is the potential for competition on this market? There is intermodal competition, via fax, e-mail and e-commerce. As in the case of railways, there are two possibilities for introducing competition:

- *horizontal competition*. A competitor operates a network parallel to that of the historic operator, but on specific customer/goods delivery segments.
- *competition through vertical disintegration*. A competitor may ask to have access to the historic operator's delivery network, which is then considered as a non-reproducible basic facility, and this competitor may be directly given mail to deliver. Access does not require changing the structure of the historic operator and may be carried out in a regulated framework. Contracts for the mutual delivery of mail at the international level between historic operators already represent a form of third-party access to another network. This system is important, for it can encourage the practice of remailing, in which mail is delivered that was posted in another country where international rates are lower than the domestic rates in a given country.

This has implications in terms of regulatory structures. The definition of horizontal competition places emphasis on open market segments competing with closed market segments. On the other hand, competition through third-party access requires defining an efficient price for network access and especially for delivery (Billette de Villemeur *et al.* 2003, 2005). The definition of access charges and the possibility of vertical openness are the subject of international debate (Crew Kleindorfer 2002). However, access costs can be high, and the issue of "unbundling" is not at all same in the postal sector as in the telecommunications sector (Panzar, 2002).

On the other hand, postal enterprises are often relatively vulnerable economic entities, with relatively high personnel and fixed network costs. This being the case, the whole challenge of regulation is to stimulate the economic efficiency of the sector but without destabilising the historic operator to an extent that would be socially or politically unsustainable. The historic operator is also a provider of financial services in a number of European countries, which enables it to make profitable its network of offices and provides it with significant resources that are often vital to its overall economic balance.

“Universal service” refers to the need to serve high-cost geographic areas under conditions that are not commercially viable. This service can be provided in conditions similar to those of the rest of the country, as is generally the case with historic operators, or else with costs that must remain "affordable". Its role is more important in the postal sector than in other sectors, and partly restricts the competitive openness that can be achieved for this activity (Panzar 2002).

Openness of the postal sector at the international level and in Europe

The European strategy is aimed at striking a balance between the objective of introducing competition and the need to preserve universal service.³⁴ The development of a Community postal policy began with the Green Paper on the development of the single market for postal services of 11 June 1992, which emphasised that the quality and efficiency of postal services varied across member countries. The lack of co-ordination between national post offices introduces barriers that hamper the development of the single market. The Framework Postal Directive of 1997 is aimed at rectifying this situation by establishing a distinction between reserved and non-reserved services (see Box 6). This directive also provides for the establishment of independent national regulatory authorities in the postal field, but it did not define their powers in a detailed manner. This being the case, there are considerable differences in the functions and structures of these authorities. Market opening is reinforced by the new Postal Directive 2002/39/EC of 2002, which defines additional stages and further limits the service sectors that can be protected from competition. (see Box 6). The directive gives additional monitoring powers to the regulatory authorities in order also to ensure compliance with the boundaries of reserved services. The anticipated effect of this measure will be to open up to competition 9% of the revenues that universal providers derived from mail activity in 2003, and 16% in 2006 (as compared with 3% allowed by the 1997 directive) (Von Danwitz 2002). The national regulatory authorities also have the right to take steps to prevent the reserved sector from cross-subsidising non-reserved services within universal service. However, the directive remains vague about the regulation of prices, simply stipulating that they must be geared to costs. Some countries such as Germany have, in certain cases, subjected postal services to price control.

The opening up of the market is generally of a more horizontal nature, consisting of a gradual reduction of the boundary between reserved and non-reserved services by changing the threshold defining reserved services (Annex 14). This threshold was lowered from between 200 to 350 g for a number of European countries to 100 g in 2003, before dropping to 20 g in 2006. In some countries, direct mail has also been introduced. The directive does not create an effective framework for access to public postal networks.³⁵ This access has been determined on a case-by-case basis by countries, as in Sweden, United Kingdom and Germany. In Germany in spring of 2005, the post office, which is 56% State controlled, reacted by announcing the potential suppression of 6 000 jobs following a decision by the Cartel Office, asking that reductions be granted for pre-sorted mail regardless of the sender, although until then these had only been available to large companies.³⁶ The issue of horizontal access is also being debated in the Netherlands, but no decision has been reached thus far (Van der Lijn, Meijer 2003). In Europe, the country where liberalisation has gone farthest is Sweden,³⁷ where the operator Sweden Post, which still holds 94% of the market, meets its universal service obligations without the protection of a reserved sector or financing through a compensation fund. Network access is guaranteed through access to information on address changes, access to post office boxes, the possibility of having competing postal codes, and the possibility of using remailing services. The regulator's responsibility is limited to sorted mail sent in small quantities

and corresponding to universal service. Beyond this, the competition authority has responsibility. Local competition has developed thanks to lower labour costs and the elimination of the least costly services. The efficiency of the sector has increased, with an overall net decrease of 15 000 jobs and an increase in volume and prices that are closer to covering costs, with an increase in the price of urgent sorted mail. However, there still continues to be cross-subsidisation.

The Commission has commissioned comprehensive evaluations of the European postal market.³⁸ It observed in its 2005 report³⁹ on the application of Directive 2002/39/EC that the reform of the postal sector is on the whole well advanced. The quality of service and the performance of companies have improved and the separation of functions between regulatory authorities and operators has been established. The pace of implementation remains uneven across States. Further efforts must be made to ensure the practical application of some of the most complex requirements of the directive (monitoring of tariffs, transparency of accounts, authorisations and licences). There must be additional investigations of cost allocation and of the monitoring of universal service, as well as of special tariffs, terminal costs and cross-subsidies. There continue to be regulatory asymmetries between historic operators and new entrants, in particular with regard to VAT. Despite these reservations, the impact of the directive is positive, as it has led to an improvement in the quality of service through the opening up of the market while guaranteeing universal service. The further stages will be subject to regular evaluation by the Commission. Since Article 16 of the Treaty of Amsterdam was adopted, postal services have been characterised as services of general interest that can be exempted from restrictions laid down in Article 86 of the Treaty of Rome.

Box 6. European policy in the postal sector

The development of a complete regulatory framework through Directive 97/67/EC

This 1997 framework directive has two main objectives:

- To improve the quality of service
- To facilitate the creation of a domestic market.

Out of respect for the principle of subsidiarity, the directive leaves the member States the possibility of following different paths to achieving the harmonisation of postal services within the Community. The directive:

- Lays down minimum characteristics of universal service that each member State must guarantee within its territory
- Sets common limits for the services which may be reserved by each member State for the universal service provider(s) and a timetable for continuing a gradual and controlled liberalisation. The transport of items of domestic correspondence weighing less than 350 g and the price of which is less than five times the tariff for a standard letter sent by basic mail may be reserved for the universal service operator. Cross-border mail may also be reserved on the basis of the same criteria. Non-reserved services include the transport of parcels weighing up to 10 kg, registered items and insured items.
- Lays down the principles governing authorisations and licences for non-reserved services.
- Regulates the establishment of service quality standards and confirms the mechanisms promoting technical harmonisation in the postal sector.
- Requires the separation of the regulatory function from that of postal operator in the member countries.
- Provides for the establishment of an independent postal regulator in each member country.
- Defines service quality criteria for postal services.

New postal directive 2002/39/EC defines additional stages for opening up to competition

This directive establishes liberalisation in three stages: 2003, 2006 and 2009:

- Since 1 January 2003, the member States may only shelter from competition items of correspondence weighing less than 100 g and costing less than three times the basic tariff. As from 1 January 2006, the limit will be lowered to items weighing less than 50 g and costing less than two-and-a-half times the basic tariff.
- Outgoing cross-border mail shall be open to competition from 1 January 2003. Exceptions are possible where these are necessary to maintain the universal service.
- 1 January 2009 is set as a possible date for the full accomplishment of the Interior Market for postal services.

At the international level, postal services are also regulated by the rules of the Universal Postal Union (UPU),⁴⁰ based Bern, and increasingly by the General Agreement on Trade Services (GATS) of the WTO. The stipulations of the UPU primarily concern universal service and freedom of transit, with the obligation for national post offices to re-forward the mail of other post offices.⁴¹ Postal services are also affected by the General Agreement on Tariffs and Trade (GATT) 1994 and the GATS. At this stage, there is no overall convergence between these systems, in particular in terms of systems of terminal charges. The UPU's provisions in the field of remailing are not entirely consistent with the GATS. Conversely, the separation of regulatory functions and operations are not recognised as such by the UPU, in which representatives are operators rather than national regulatory authorities. Discussions have been held in the GATS on competition in express delivery and mail services, with different approaches on both sides of the Atlantic,⁴² even though the goal is to obtain fair treatment for all operators.

The Swiss postal sector in a European perspective

The data from international comparisons remain somewhat fragmentary. The elements available show that the sector is following patterns comparable to those prevailing in EU countries. An initial important point is that Switzerland, given its very high standard of living, had an average number of nearly 760 letter post items per capita in 2003, which is much higher than in other European countries. This is 50 to 100% higher than in France and the United Kingdom, 6 times higher than in Spain and Italy, and is even higher than in the United States, where the number has fallen since 1999.⁴³ Another important point is the density of the postal network, which is one of the highest in OECD countries. Although the number of inhabitants served by a post office rose from approximately 2 000 to 2 600 between 1999 and 2003, the density remains higher than in the principal neighbouring countries of France, Italy and Germany, and much higher than in countries such as the Netherlands and Belgium. This point was one of the key elements discussed at the time of the 2003 reform (*cf. infra*).

Figure 5. Stationary post office density and number of letter-post items in selected European countries

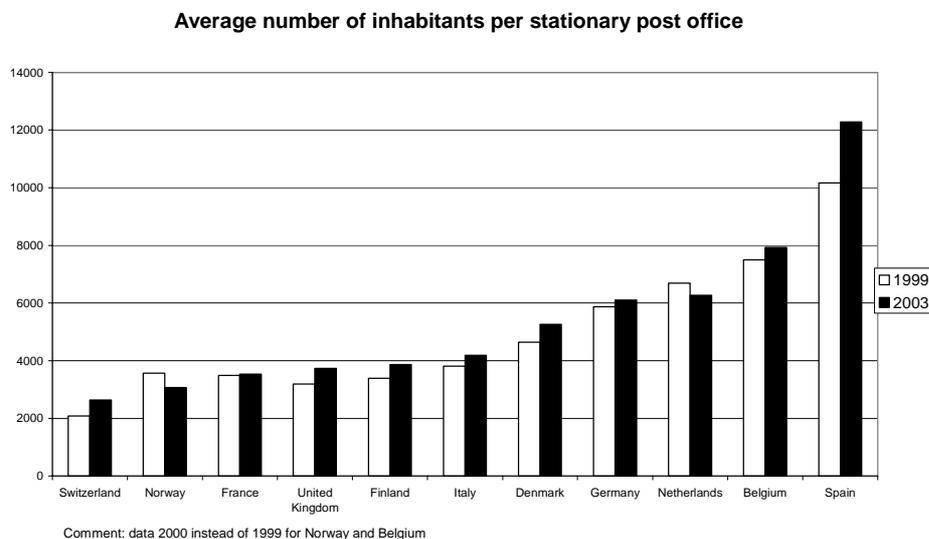
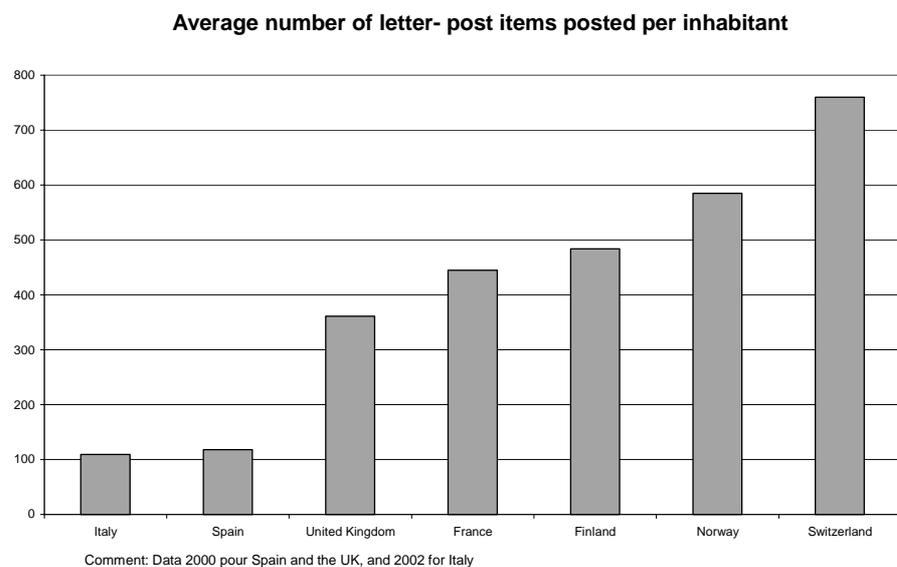


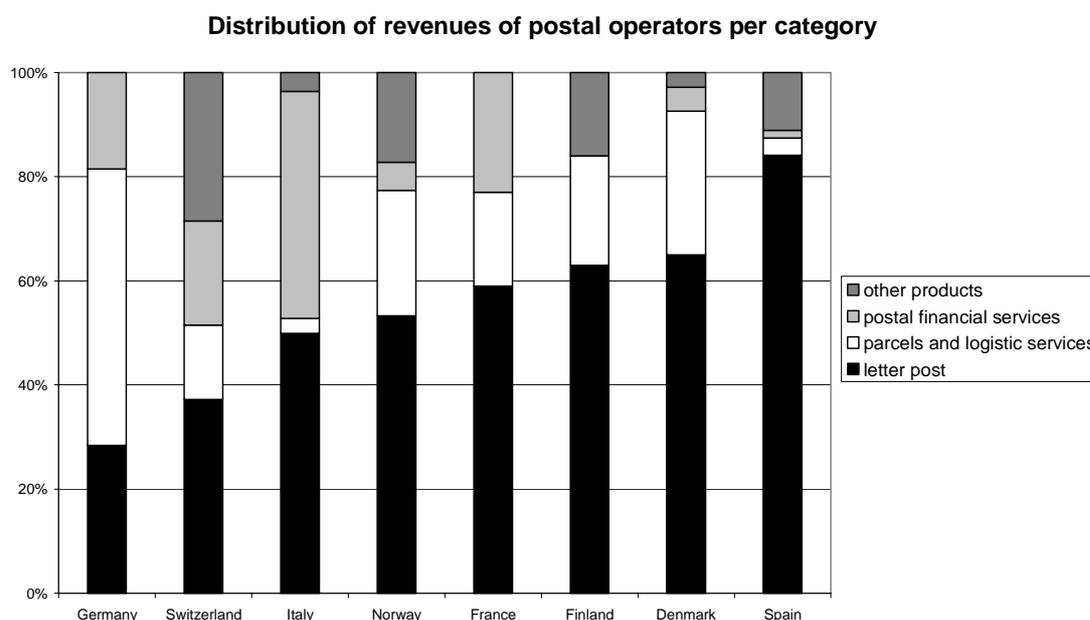
Chart 6.



This outcome has been achieved with moderate tariff levels, despite recent increases. The data collected by Vaterlaus et al. (2003) showed that prices for letters up to 50 g were 12 to 13% higher than in a comparable group of European countries (France, Germany, Sweden, United Kingdom), and 18% lower in 2001 for letters up to 250 g. More recently, PostReg published price comparisons for 2004, which show that prices for domestic items up to 20 g, *i.e.* within the limits of the monopoly, are higher in Switzerland, in particular for rapid mail. Switzerland is below the average for items up to 100 g. On the other hand, after adjustment with purchasing power parities, Switzerland ranks average for items under 20 g, and its prices are among the lowest for items up to 100 g (see Chart 2). More detailed data from the Post Office for items up to 1 kg and even 5 kg, confirm and further enhance these results.

However, the economic equilibrium of the Swiss Post Office is not dependent on mail activity alone. Mail service in the strict sense accounts for less than 40% of its revenues. In this regard, Switzerland ranks second behind Germany in a group of selected European countries. A heavy reliance on mail activity makes postal operators more vulnerable in the economic transition to competition under way in the field of mail service. In Switzerland as in France, Germany and especially Italy, the financial services of the Post Office account for a significant share of revenues, which has grown by 4 points between 1999 and 2003. Lastly, the Swiss Post Office seems to have unusually high level of other revenues (including income in terms of real estate and financial management, as well as an activity of passenger transport which does not exist for other Post offices).

Figure 7. Distribution of revenues of postal operators in selected European countries



The recent trend of the operating data of the Swiss Post Office in comparison with the operators of certain countries show that it has succeeded in increasing its operating income by 3% per year on average in real terms, which is one of the best performances of the sample studied, after Germany and Spain. What is more, the Swiss Post Office has systematically had positive results for the past 5 years, even though this has not been the case in a number of other European countries. It made a profit of 366 million francs in 2003 and approximately 800 million francs in 2004,⁴⁴ benefiting from a 21% tariff increase that year.⁴⁵ However, the first annual report prepared by PostReg shows that the profit from the provision of universal service alone amounted to 522 million euros in 2004 according to data submitted for assessment by an independent audit company, which accounted for approximately two-thirds of the profit published. This corresponds to 335 million francs for the monopoly on letters and to 441 million francs for the non reserved services of the universal service. The payment services which are part of the universal service (non reserved) represent 90 % of the profit of Postfinance. The possible establishment of a postal bank was discussed in Switzerland as in other OECD countries, even if results differ.

The number of staff employed by the Swiss Post Office as such has decreased by 1% per year, which is a lower rate than in Germany, Italy and the United Kingdom, but is higher than in France and the Netherlands. More specifically, the number of staff increased by 3.3% between 1998 and 2000, following the introduction of new sorting centres and the problems encountered, and then began to fall again. The

number of staff being trained increased by 30% between 2000 and 2004, and the number of staff working in the group, not including the postal operator in the strict sense, tripled during this period. On the whole, the number of staff employed by the group decreased by 0.3% per year, and productivity is increasing by 3.2% per year. These productivity gains are lower than in Germany, Spain, Norway and the United Kingdom, but higher than in France, Denmark and Belgium. On the whole, the operating revenue per employee is high, even though it is lower than in the German post office. Switzerland's favourable results would be lower if they were corrected by purchasing power parities (PPP). The German operator's performance stands out, with economic growth and improvements that place it at the forefront of its European partners and are one of the consequences of the vigorous reforms carried out in this sector in Germany.⁴⁶

On the whole, quality appears to be high in a European perspective.⁴⁷ For example, for post delivered on time at D+3 at the international level, Switzerland still has one of the highest score in Europe, and for all countries in 2004. At the domestic level, on-time delivery indicators are higher than 97% and were stable during the 2000-2004 period and improved slightly for priority parcels.⁴⁸ The high-quality data published⁴⁹ on the basis of data provided by the Post Office and monitored by the regulator on the whole confirm this high level of quality. At present, nearly 91.5% of the population has access to universal service provision in 20 minutes on average, which exceeds the objective of 90% set by the Federal Council. The restrictions on delivery are marginal and, according to the available data, customer satisfaction is improving, although the degree of satisfaction of commercial clients is lower than for private customers.

The data also reflect the low degree of openness to competition of European postal markets and of Switzerland in this market. With regard to postal services *per se*, they remained under 99.5% control of the historic operator, as compared with 97 and 98% in Germany and the United Kingdom in 2002 (Table below). The parcel market is more open since parcels up to 20 kg have been opened to competition⁵⁰: The Swiss Post Office has 83% of the market of universal service parcels up to 20 kg, which represents 800 million francs,. For the entire parcel market, the Post Office only has 62%, with the main competitors being DHL (14%), a subsidiary of the German Post Office, and DPD⁵¹ (6%), a subsidiary of the French Post Office. In all, the economic weight of the Post Office's competitors grouped together in the association Kip and Mail, measured in terms of their turnover (350 million francs) and their staff (2 200) amount to roughly 5% of the corresponding total for the Post Office.

Table 1. Overview of competition in several European postal markets in 2002

Country	Number of operators on the market	Market share of the historic operator in volume terms	Market share of the historic operator in value terms
Germany	450	98.3%	97.6%
Spain	Approximately 1 000	81%	90%
United Kingdom	10	96%	97%
Netherlands	Approximately 4	95%	98%
Sweden	36	95%	97%
Switzerland	18 concessions	NA	98.4% addressed letters 83% universal service parcel market (<20Kg)

Source: Joëlle Toledano, Editor, *Economie postale, les fondements*, 2004, adapted by the OECD Secretariat for Switzerland.

Framework and structures of the regulatory authorities

The structures of postal regulation in Switzerland were reorganised in depth by the reform of 1998 (Meier Bruhin 2002), which created the Post Office as a separate public entity and established the regulatory authority PostReg as a body integrated into the structure of DETEC. The stages for liberalisation are based on those implemented at the European level, but the slower pace takes into account Switzerland's specific institutional features in terms of direct democracy and territorial preferences. As a public enterprise, the Post Office is subject to quadrennial objectives set by the Confederation. It is required to provide the services specified by the Postal Services Act adopted in 1997, which was based on the European Green Paper of 1992 (Finger, 2001). However, the Post Office still has a hybrid status, in particular in terms of its commercial orientation and its board of directors, and it retains certain privileges and statutory provisions that distinguish it from its competitors. In particular, it has a customs privilege and maintains the exclusive right to transport mail overnight and on Sundays defined by ordinance.⁵² For example, according to the data of regulators, when goods are ordered via Internet, the customs charges are 10 francs for the Swiss Post Office as compared with 43 francs for its competitors.⁵³ Lastly, as a Confederation body, it is consulted beforehand regarding regulatory changes.

The Post Office Act of 30 April 1997 differentiated between reserved and non-reserved services. Article 2 incorporates the requirements of Article 92 of the Federal Constitution, which lays down that adequate universal service, at reasonable prices, must be provided throughout all regions of the country. The universal service is broader than in other European countries, as it also includes financial services. Within the universal services, non-reserved services may also be offered by competitors. The 2002 provisions, implemented in 2003, have made it possible to open up the market further to competition by liberalising the parcel market, although this is subject to licensing. It was initially planned that providers having more than 100 000 Swiss francs in turnover would pay a fee to the Post Office, but would be exempt if their services covered the entire Swiss territory. Below this threshold, providers would merely have to file a declaration with the regulatory authority. However, the fees were not paid since it was decided to ensure the financing of universal service. On the whole, the weight limits for the open market remain higher than those established or anticipated for the European Union.

Box 7. Overview of reserved and non-reserved postal services in Switzerland and the European Union

	Reserved services	Non-reserved services
Switzerland	<ul style="list-style-type: none"> Addressed letter post items mailed in Switzerland and to Switzerland from abroad.⁵⁴ The weight limit for reserved services is to be lowered to 100 g in 2006. 	<ul style="list-style-type: none"> Letter post items being sent abroad Addressed parcels up to 20 kg (reduced to 2 kg at the end of 2003 and to 1 kg at the end of 2004). Subscription newspapers and periodicals Deposits, withdrawals and fund transfers
European Union	<ul style="list-style-type: none"> Items of correspondence weighing less than 100 gr and costing less than three times the basic tariff since 2003. As from 1 January 2006: Items of correspondence weighing less than 50 g and costing less than two and a half times the basic tariff. 	<ul style="list-style-type: none"> Transport of parcels Outgoing cross-border mail (exceptions may be made if necessary to ensure universal service provision) Recommended items Insured items

The Ordinance of 2003 created a regulatory authority (PostReg) under the supervision of the General Secretariat of DETEC. This authority is in charge of handling complaints about the quality of services and access and of organising and monitoring independent quality control, the technical specifications for calculating the costs of universal service and compliance with the ban on cross-subsidies.

Licences are granted by the ministry, which is the issuing authority, but PostReg is responsible for enforcement and implementation. It plays an advisory role with regard to tariffs, preparing the Department's pricing decisions in the reserved services sector. However, this is a field where there is little leeway, as prices are merely submitted for monitoring by the Price Inspector. As owner of the Post Office, the Confederation may also find that it is in its interest for prices to rise in order to avoid paying indemnities. In 2004, accompanying measures were implemented by the Federal Council, in particular to regulate labour law for private providers, with monitoring by PostReg. PostReg plays a role in policy definition since it prepares legislation and the handling of international issues. In the field of quality, PostReg has established directives concerning quality control and the presentation of the costs of universal service. Quality will be monitored by an independent body, and the costs of universal service have been examined by an external auditor. This audit has shown that the Swiss Post Office derived two-thirds of its total income from universal service in 2004 and also that there had been a failure to comply with the requirements for presenting the costs of universal service since through transfer pricing Expresspost had borne the variable costs of Postmail but only part of the fixed costs, the rest being covered by Postmail. However, at this stage PostReg is unable to impose any sanctions on the Post Office.

The "Postal services for all" initiative, which was aimed at rejecting the process of transforming the post offices network, required guaranteed universal service, a postal network covering the entire territory and the right of review by communes if the network was changed. All this broadly followed the demands of trade unions (Ruchti 2002). The analysis of the OECD (2002)⁵⁵ shows that regulatory reforms can have asymmetric distributional effects on a territorial basis, requiring policy instruments to offset these asymmetrical effects. In the context of implementing the new postal legislation, following the "Overview of the Swiss postal market", the government and parliament decided to reinforce the protection of access to universal service through a modification of the postal law on 21 March 2003. In addition, the provisions envisaged for territorial equity were reinforced by establishing an independent "Post Offices" Commission. The revised Post Office Ordinance lays down clear rules for the closing and transfer of post offices, requiring the Post Office to submit the case to this Commission if the Post Office and the communes concerned do not agree. The rules on accessibility must take into account accessibility by public transport. The objective is for 90% of the population to be able to go to the post office on foot or by public transport. The Commission's secretariat is provided by PostReg. Unfavourable opinions on post office closures have already been handed down.⁵⁶ On the other hand, the Federal Council, followed by Parliament, has refused to grant indemnities for universal service, deeming that the resources available were adequate. Unlike what occurred in the electricity sector, the referendum initiative was finally rejected by a small majority of 50.2% on 26 September 2004. Since then, the Federal Council has been able to implement the act through the relevant ordinance.

The high political sensitivity of this issue has led the authorities to be very cautious in managing the further stages of opening up the market, even though it seems clear that there will have to be a further revision of the Post Office ordinance and no doubt of the relevant legislation given the existing gap with EU practice. This next stage is still uncertain and will only take place if there is an assessment of the liberalisation introduced thus far that shows that the financing of universal service is ensured and the financial equilibrium of the Post Office allows further liberalisation. It is for this reason, and given the economic and political importance of this issue, that the accounts of the Post Office and the cost of universal service will be analysed annually by an external auditing body.

The most recent estimates published by WIK in August 2005 following a request by PostReg in the context of a remit from DETEC, show that the full opening of parcel markets in 2004 did not create any threat for the supply and financing of the universal service, while providing positive effects in terms of diversifying supply options and improving the nature of the services offered in line with clients' needs. The report also states that limiting reserved services to items up to 100g will have limited consequences, in terms of market entry of competitors on this market, given the experience of other EU countries, and that the supply of a quality universal service will not be endangered. As a result, this report recommends opening to competition in 2006, as well as a better justification of the costs of universal service. The report also recommends increasing the regulator's resources, with increased independence and competencies.

The telecommunications sector

The telecommunications sector is characterised by the mutual interaction between rapid technological change and a constantly changing regulatory framework. In Switzerland, as in other OECD countries, this sector has become so technologically sophisticated that certain regulatory structures now find that they must adapt to changes that they were the first to promote. Liberalisation began in Switzerland starting in 1998, following the same pattern as in other European countries. On the whole, this has enabled the sector to reach a high level of development. Switzerland ranks at the very top of OECD countries in terms of access and use of technologies. However, efforts to update the regulatory framework have lagged in recent years, particularly with regard to the unbundling of the local loop, which had already been identified and recommended in the two previous OECD studies (OECD 2002, 2004).

A global perspective, the opening of the sector at the international level and in Europe

Since the modified final judgement of the Court of the District of Columbia in 1982, which led to the dismantling of AT&T's former integrated monopoly in the United States, all OECD countries have undergone rapid changes in his sector. In Europe, the separation between postal and telecommunications services was first established in the United Kingdom in the early 1980s, in particular with the 1984 act that allowed the privatisation of the historic operator, liberalisation of the sector and the establishment of the first independent regulator for network industries, OFTEL. Competition was introduced in the long-distance market. Next, technological changes during the 1980s made it possible for wireless telephony to develop.⁵⁷ These changes led the United States to open up its market completely in 1996 by abolishing the regulatory barriers between the short and long-distance markets, given that cable providers could provide telecommunication services and Internet users could place calls without using wired networks.

In Europe, the initial "Green Paper" published in 1988 promoted openness by recommending a partial liberalisation of the sector, excluding infrastructure. The terminal equipment market was liberalised in 1988, including services other than telephone services. Next, progress towards liberalisation went through a number of stages (see Box 8). The 1990 ONP Framework Directive (90/388) liberalised value-added services and data services for businesses and closed user groups and defined the general conditions of access by service providers to the public operators' network. This directive was supplemented in 1995 by the lifting of restrictions on the use of cable networks and the opening up of the mobile telephony market in 1996.

The key stage took place in 1998, with the adoption of a "package" consisting of texts liberalising the market on the basis of rules of competition and introducing open competition in nearly all member States on 1 January 1998. This package consolidates and extends previous texts. It introduces harmonisation directives to support this process and lays down the principles and conditions with which member States must comply in transposing the Community system into domestic law. In particular, Directive 90/387, amended by Directive 97/51, addresses the functioning and powers of national regulatory authorities

(NRAs) and defines their supervisory mission. Directive 97/13 deals with licences and Directive 97/33 specifies that the conditions of access and interconnection should be guided by market forces. Lastly, access to the local loop was decided in 2000, with NRAs being given supervisory power to ensure fair competition (Box 8).

The opening up of the market continued with the adoption of a second “package” in 2002. Directive 2002/21 requires the establishment of legally separate and functionally independent NRAs, and defines their rights, responsibilities and powers. It lays down objectives of transparency, consultation and access to information, which in fact define a "best regulation" approach. This package simplifies general authorisations by reducing the regulatory burden regarding market access. It specifies the conditions of access and interconnection, giving powers to NRAs. A number of directives concern universal service, users' rights and the general extension of competition (see Box 8).

Beyond the European framework, the WTO Agreement on Basic Telecommunications Services, which entered into force on 5 February 1998, commits countries progressively to opening up their markets to competition and foreign investment. A jointly negotiated "reference document" is aimed at ensuring compliance with a common set of rules aimed at guaranteeing fair trade, and includes safeguards in the field of competition, compliance with interconnection requirements, the transparency of licensing formalities and the independence of regulatory bodies vis-à-vis telecommunications service providers. The decisions and procedures of regulators must be fair and non-discriminatory. The regulator's mission is to promote a fair and transparent market. However, the agreement does not impose a specific administrative structure for regulation.

Box 7. The key stages of the opening up of European telecommunications markets

Initial stages towards liberalisation in the 1990s

- 90/388/EEC liberalised all markets, except for voice telephony
- 94/46/EC liberalised satellite services
- 95/51/EC lifted restrictions on the use of cable networks for telephony services
- 96/2/EC opened up the mobile telephone market
- 96/19/EC supplemented liberalisation by lifting restrictions on the use and installation of parallel infrastructures

The 1998 package consolidated earlier efforts and harmonised the regulatory framework:

- 90/387/EEC, amended by Directive 97/51/EC specifies the functioning and powers of National Regulatory Authorities (NRA). These must be independent from network operators and equipment and service providers. A structural separation is required in member States in which the State owns shares in or controls the historic operator. Their mission is to supervise the following: licensing, the provision of interconnection, the principle of non-discrimination for leased lines, universal service and the extent to which tariffs reflect costs.
- 97/13/EC on licences lays down harmonised criteria for the issuance of general licences, which may be replaced by individual licences under certain circumstances.
- 97/33/EC on interconnection specifies that the conditions for access and interconnection must be guided by market forces. It imposes a number of obligations on operators having significant market power.
- 92/44/EC on leased lines specifies that tariffs must reflect costs and be transparent
- 95/62/EEC was amended by Directive 98/10/CE on voice telephony

Local loop access approved in 2000

In April 2000, the Commission adopted a recommendation asking member States to adopt all legislative and regulatory measures to implement unbundling by the end of 2000. Regulation n° 2887/2000 then established harmonised conditions for unbundled access to the local loop. It also gives NRAs the power:

- to impose changes on the reference offer for unbundled access to the local loop and related facilities.
- to require notified operators to supply relevant information
- to intervene on their own initiative in order to ensure fair, non-discriminatory competition.

In 2002, a new regulatory framework was adopted in the field of electronic communications

“Framework” Directive 2002/21/EC states that member States shall guarantee the independence of NRAs by ensuring that they are legally distinct from and functionally independent of all public and private providers. It defines the rights, responsibilities and powers of NRAs and policy objectives. It lays down objectives of transparency, consultation and access to information. Operators that have significant market power will be subject to obligations specified in the directives on universal services and access.

Directive 2002/20/EC on “authorisation” imposes a general authorisation for all types of networks and electronic communications services; individual rights are only granted for the use of radio frequencies and numbers. The directive ensures more consistent treatment for operators, who have the right to be treated in an objective, transparent and non-discriminatory manner.

Directive 2002/19/EC on “access and interconnection” ensures that relations between operators concerning the conditions for access and interconnection are guided by market mechanisms. NRAs are empowered to intervene in cases in which these mechanisms are insufficient. In return, NRAs must co-ordinate their actions at the national and Community level. In order to ensure end-to-end connectivity and accessibility of digital radio and television broadcasting services for end-users, NRAs may:

- impose obligations of transparency in relation to interconnection and/or access; publication of a reference offer; non-discrimination and cost recovery and price control.
- require operators to give third parties access to specified network elements or facilities, to negotiate with undertakings requesting access, not to withdraw access to facilities already granted, to interconnect networks or network facilities.

Directive 2002/22/EC on “universal service and users’ rights” defines the scope of universal service and the rights of end-users. NRAs are empowered to enforce these rights. Designated undertakings shall be subject to public service obligations. Undertakings can recover the net cost of providing these services.

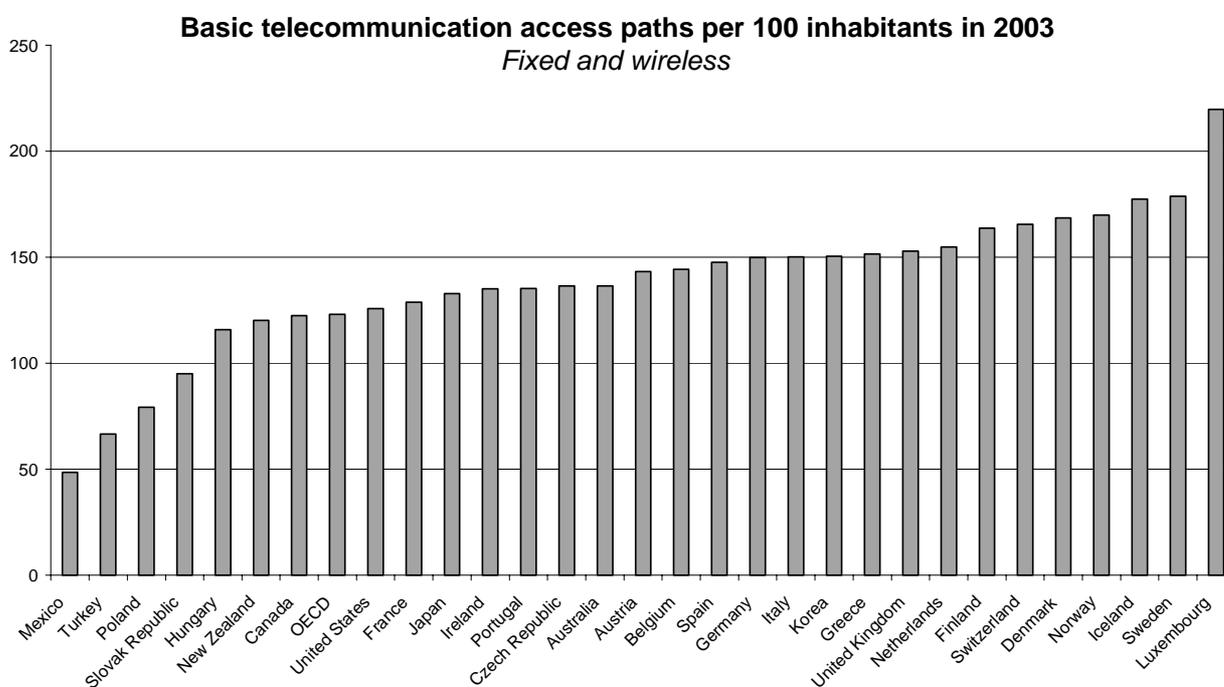
Directive 2002/58/EC on “privacy and electronic communications” protects the interests of end-users in terms of the security of networks and services, confidentiality of communications and traffic and location data.

Directive 2002/77/EC on “competition” provides for the abolition of exclusive or special rights granted by member States for the establishment and/or use of electronic communications networks and the provision of electronic communication services. It ensures that all undertakings are entitled to provide electronic communications services. States ensure that the general authorisation granted to an undertaking to provide services is based on objective, non-discriminatory, proportionate and transparent criteria. Reasons must be given for any decision by the competent regulatory authority to deny an application for a general authorisation that prevents an undertaking from providing services or using networks. States must ensure that vertically integrated public undertakings do not discriminate in favour of their own activities. The liberalisation also covers directory and information services, frequencies, satellites and cable television networks so as to eliminate any unjustified restrictions.

The Swiss market in an international perspective

In comparison with OECD countries as a whole, the Swiss telecommunications market has reached a high level of development, as has been shown in the OECD Communications Outlook (OECD 2003, 2005).⁵⁸ The number of telecommunication access paths per 100 inhabitants stood at 166 in 2004, placing Switzerland in the group of top-ranking OECD countries, alongside the Nordic countries (chart). This performance is due to the highly developed cable market, to which 9 out of 10 households have access. Together with Belgium and the Netherlands, Switzerland therefore ranks ahead of all other OECD countries, including Korea and the United States (Figure 7). Lastly, in the field cellular telephony, although Switzerland lagged behind the most advanced European countries in 2003, such as Italy, Finland and the United Kingdom, and also Austria, it was ahead of all other European countries, including the Netherlands, Germany and France. (Figure 8)

Figure 8. Telecommunications penetration in OECD countries



Source: OECD Communications Outlook 2005

Figure 9.

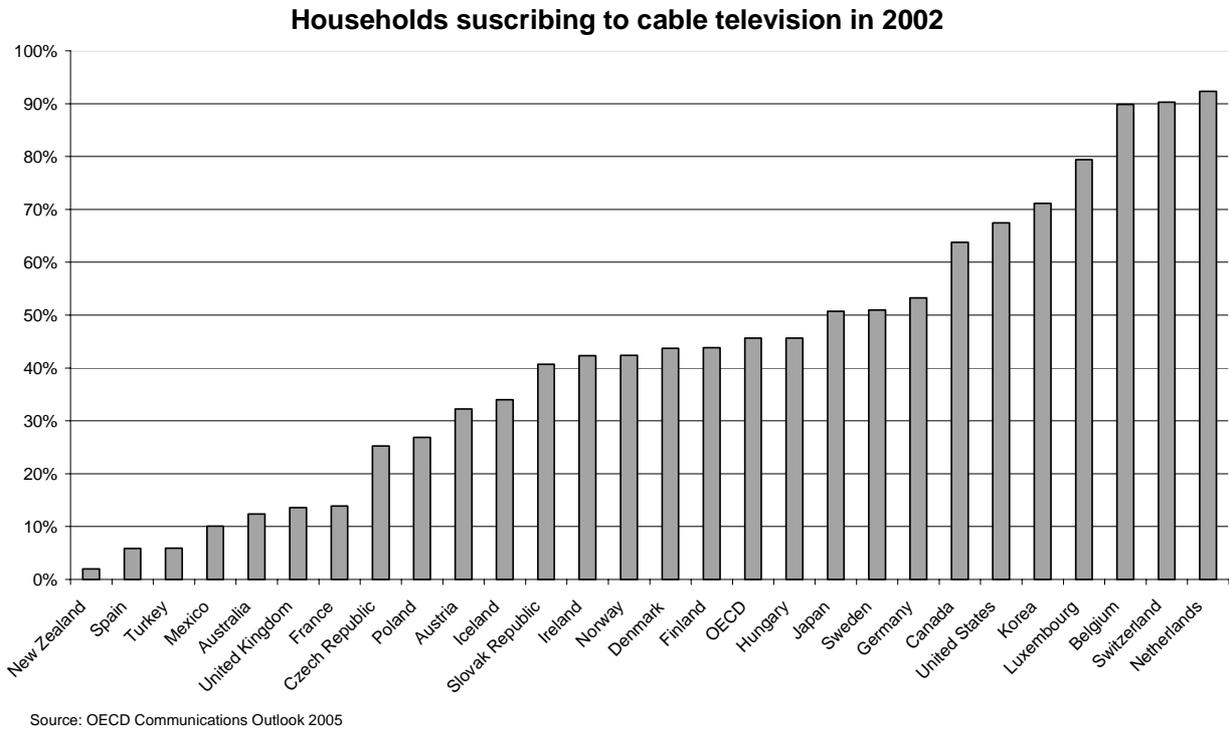
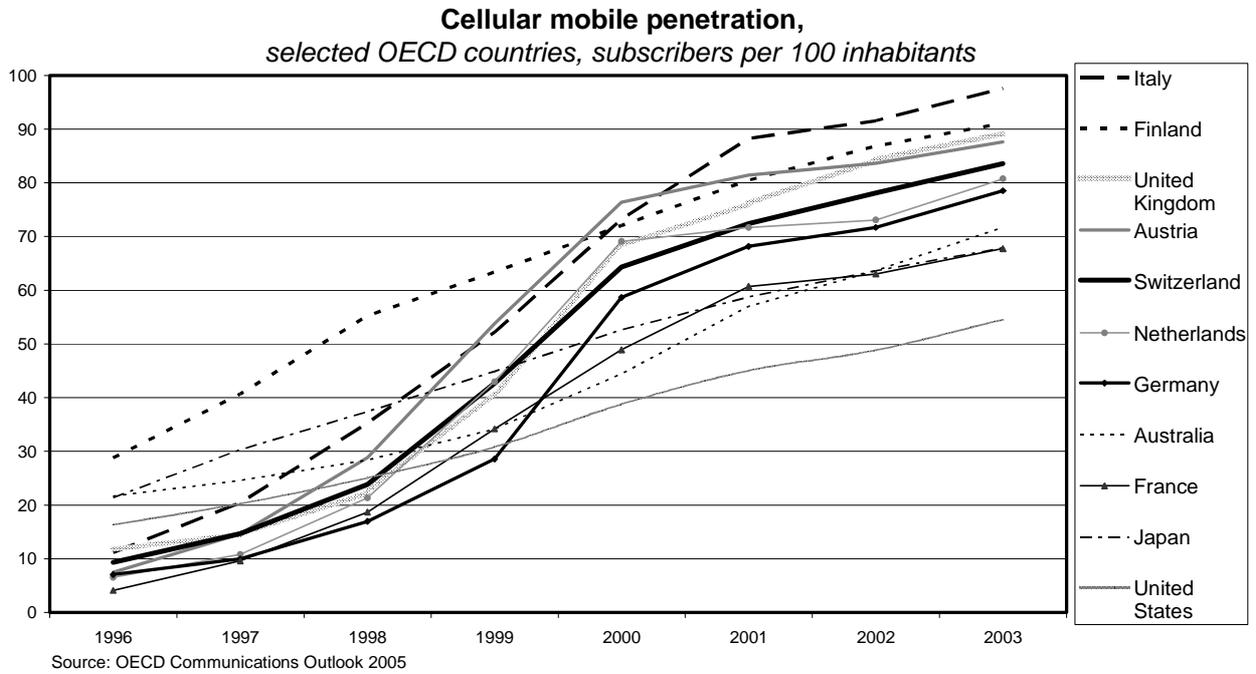


Figure 10.



These results are achieved with communications expenditures that are on the whole very high. The telecommunications revenue per capita is by far the highest among OECD countries. Even after it has been corrected for PPP, it is still the third highest, and is 16% higher than in the Netherlands and 43% higher than in Germany (See Annexes, Figure 2). If the density of access is taken into account, the telecommunications revenue per access path is also the highest in OECD countries at current exchange rates. However, after it has been corrected for PPP, it comes after the United Kingdom and the United States, and is 9% higher than in the Netherlands and 30% higher than in Germany (See Annexes, Figure 2). At current exchange rates, the revenue per mobile subscriber ranked 4th among OECD countries, behind Japan, Austria and the United States. After being corrected for purchasing power parities, this revenue is situated in the lower-to-middle range for OECD countries, lower than in the Netherlands, Spain and the Czech Republic, but higher than in Italy, France, the United Kingdom and Germany.

International price comparisons worldwide, on the basis of the data available, are relatively favourable on the whole. The study of Vaterlaus et al. (2003) shows that prices have fallen in Switzerland since the mid-1990s, and above all after the market was opened in 1998. They were comparable to and even slightly lower than prices in four comparable European countries, *i.e.* Germany, France, Sweden and the United Kingdom. According to the data of the OECD's composite basket for residential subscribers, Switzerland is in a median position at current exchange rates. After correction for PPP, charges are among the lowest in the OECD and comparable to those found in Nordic countries (See annexes, Figure 4.). According to the data of the OECD's composite basket for business subscribers, Switzerland ranks 10th at current exchange rates, behind the United Kingdom, Japan and Austria. After correction for PPP, charges are among the lowest in the OECD, between 15 to 20% lower than in France and Germany (See Annexes, Figure 4).

However, the public perception is that mobile calls remain relatively expensive in Switzerland.⁵⁹ OFCOM data⁶⁰ show that prices, after initially falling, have stopped decreasing since 2001, and that there are still large price differences between market players. In fact, more detailed comparisons between mobile telephony operators made by the research institute Teligen⁶¹ show that for average consumption with a NatelSwiss subscription, the operator Swisscom was, at current exchange rates, the most expensive among the countries studied, costing 105 francs per month, as against 78.3 for Sunrise and 75 for Orange. However, prices for Orange and Sunrise were comparable to those charged by operators in Italy and Germany. The European average was 64.6 francs.

Be this as it may, the Swiss market was not destabilised by low UMTS bids. Switzerland has conducted an ascending bid auction for four licences, but the ascending bid format has favoured powerful providers,⁶² and ultimately only four bidders came forward in the week before the bids. The reserve price had been set very low and could not be changed, in particular because of the opposition of Swisscom, the main bidder. The final price was the reserve price, barely 20 euros per capita in Switzerland in 2000, as compared with over 600 euros in Germany and the United Kingdom.⁶³ Today, the operator Telefonica, which has not installed antennas, is trying to resell its UMTS licence and the Swiss authorities have not yet issued this licence to another operator.

In terms of competition, the Swiss market appears to be in a somewhat paradoxical situation. It is one of the few markets to provide significant "modal" competition with respect to infrastructure, given the high level of development of cable in Switzerland in comparison with the other European countries. With regard to fixed telephony, although the historic operator Swisscom has the majority of lines and more than two-thirds of local traffic, alternative operators, such as Sunrise and Tele2, operate more than half of regional and national traffic. Sunrise is the result of the merger in 2000 of two of Swisscom's competitors in fixed and mobile telephony, and is controlled by TDC Denmark. Tele2 is a subsidiary of the Swedish operator Tele2AB,⁶⁴ and operates in Switzerland on the fixed and mobile telephony markets and as a virtual operator on Internet (MVNO). On the other hand, there is relatively little competition on the mobile telephony market, with only three operators. The historic operator, Swisscom, holds approximately 60% of the market, while each of the two other operators, Orange, a subsidiary of France Telecom, and TDC, has roughly 20%. The market liberalisation process was such that Sunrise and Orange only were able to begin their activities in 1998, when Swisscom Mobile already had 1.7 million customers. The two other operators are still consolidating and recovering their investments.⁶⁵ Swisscom Mobile now has more than 4 million customers, and serves 99.8% of the population through its GSM network and nearly 90% through its UMTS network. After having begun its operations through a roaming contract with Swisscom, Orange has recently begun to develop its own network. Sunrise has had a different strategy, choosing to build its own network from the beginning. The operator Tele2 is currently developing a network that is now focused on Zurich and should be operational by the second half of 2005, with tariffs similar to those charged for fixed telephones. Neither Swisscom, Orange nor Sunrise have agreed to sign a roaming contract with Tele2, thus making its prices unattractive outside the Zurich area.

In the cable market, the independent operator Cablecom⁶⁶ has a market share of approximately 54% of the cable television market. Cablecom has also developed an alternative provision of Internet, with 269 000 subscribers at the end of 2004, *i.e.* 8.5% of households, which represents a market share of nearly 21% for the Swiss market as a whole and 55% of its cable coverage area. Cablecom launched voice telephony provision in 2003, but its overall turnover only amounted to 723 million Swiss francs in 2004, as compared to over 10 billion francs for the group Swisscom.

With regard to Internet, there has been regular growth in the number of subscribers to regular networks in Switzerland, which ranked second among a group of countries studied in 2003. In terms of broadband more specifically, there has been rapid growth in Switzerland as in the other OECD countries. With just under 15 of every 100 inhabitants having access, which in fact represents a significant share of households, Switzerland ranked behind Korea, Denmark, Canada, the Netherlands and Iceland in mid-2004, but ahead of the other Nordic and European countries and ahead of the United States (Figure 11). These developments are occurring in a context in which tariffs remain relatively high, for service speeds that are still lower than is the case in many other countries (annex). In particular, the price of Swisscom's main subscription at 512 k only fell by 6% at current exchange rates between September 2002 and November 2004, as compared with a reduction of over 30% in the United Kingdom, France and Germany. Swisscom's provision of ADSL television has been postponed to 2006, even though this kind of service is widespread in a number of European countries. The low level of competition on the Swiss market and especially the absence of unbundling of the local loop and the weakness of the regulatory authorities' current powers in the field of interconnection explain why Swiss consumers cannot benefit from services that are as innovative and attractive as in neighbouring countries.

Figure 11. Internet and Broadband access in OECD countries

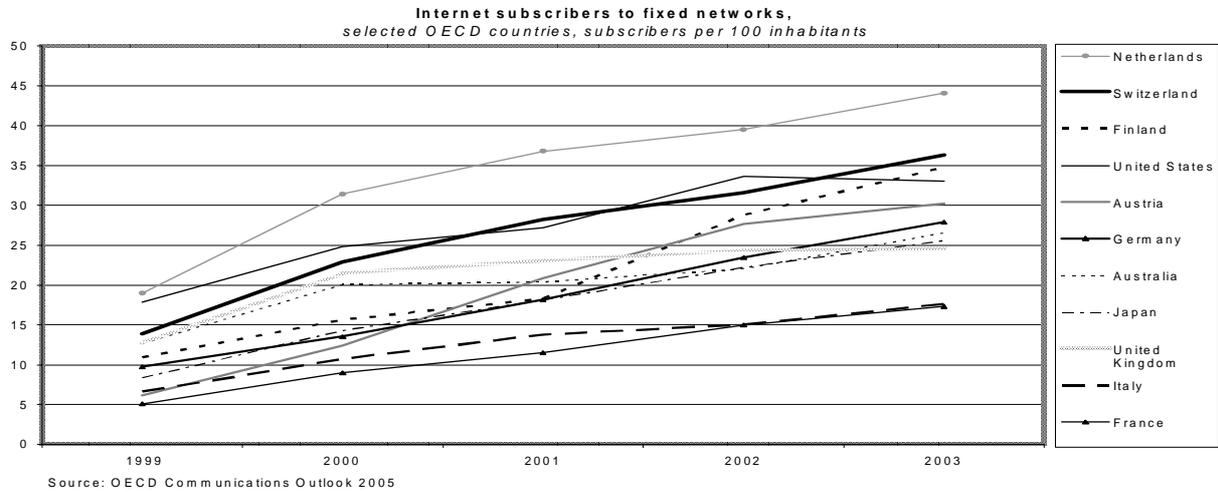
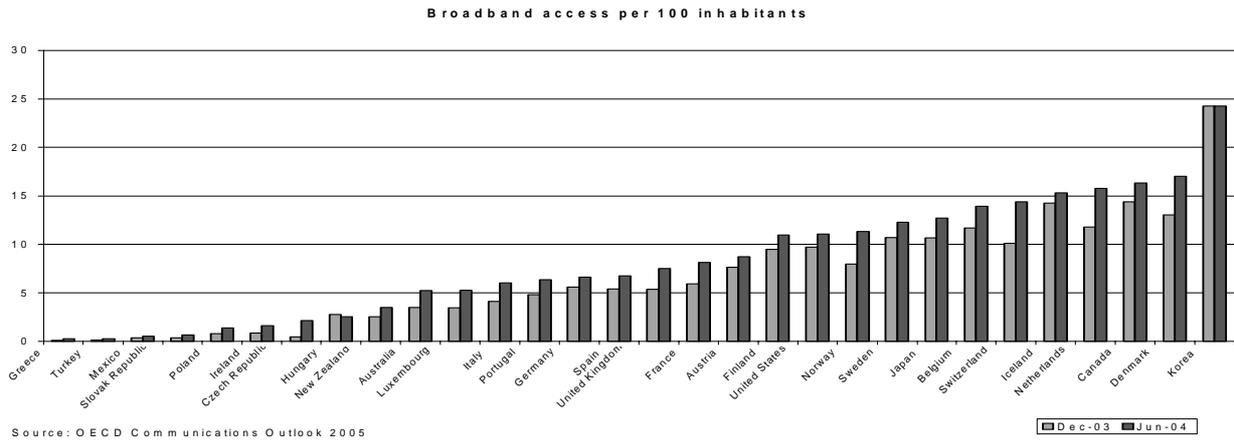


Figure 12.



Operators are also trying to expand by investing in the content that is broadcast on cable networks. For example, Cablecom has developed partnerships with networks distributing content on its networks. Swisscom also tried to purchase Cinetrade in 2004, a company that manages exclusive media content rights.⁶⁷ Comco had authorised this acquisition, considering that it would not give Swisscom a dominant position. Two years earlier, Comco had also required Cablecom to open up access to its network to Teleclub AG, a subsidiary of Cinetrade, deciding against a distribution monopoly and arguing that the infrastructures should be liberalised. This being the case, the acquisition of Cinetrade would have given Swisscom direct access to the network of its competitor Cablecom, even though, since the local loop has not been unbundled, Swisscom's network remains closed to outside entrants. The Federal Tribunal ruled against the acquisition of Cinetrade by Swisscom on 11 May 2005.

Framework and structure of the regulatory authorities

Liberalisation was initiated in January 1998, with the separation of Swisscom from the Post Office, followed by partial privatisation, even though the Confederation still owns over 60% of the operator today. Article 36 of the federal constitutional framework specifies that postal and telegraphy services are a federal matter, and that profits should return to the Confederation and that prices should be set on the basis of similar standards.⁶⁸ The 1992 Telecommunications Act made it possible to constitute OFCOM as an entity separate from DETEC. It also allowed free entry onto the value-added services and terminal equipment markets, following the liberalisation begun in 1998 at the European level. This legislation rapidly came considered to be too restrictive.⁶⁹ The opening up of the sector on 1 January 1998 in EU countries and the development of the WTO's negotiations brought strong pressure to bear on the Swiss regulatory framework. The 1997 Telecommunications Act (LTC), implemented on 1 January 1998, as in the case of EU market opening, laid down the framework conditions for liberalisation and universal service.⁷⁰ The act includes a relatively broad range of services within universal service, and provides for a five-year transitional period during which Swisscom must provide this service without financial compensation. The act lays down, in principle, that universal service licences are to be granted through objective and transparent bidding procedures. The act introduces price limits, but only for universal service, and also lays down around 15 criteria for the quality of universal service.

The act introduces an independent regulatory authority, the Communications Commission (ComCom), which is a commission, without a department of its own, that has authority over the departments of OFCOM, which are also under the authority of DETEC. As a result, OFCOM is subject to dual supervision depending on the issues being addressed. The sharing of powers between ComCom and OFCOM is complex (cf. section on powers).

In terms of structural separation, the liberalisation being implemented simply provides for mandated access to the wired network. Alternative providers have the right of access to the wired network and interconnection is regulated in terms of cost. For mobile telephony, there is neither vertical separation nor mandated access. Interconnection costs are long-term incremental costs. However, the regulatory authorities do not have *ex ante* power to require interconnection. OFCOM can only intervene if a party lodges a complaint, in which case ComCom can order protective measures while the complaint is being processed and acts as an appeal body able to order the interconnection if the conciliation procedure undertaken by OFCOM should fail. For example, in June 2005 ComCom decided that the interconnection tariffs charged by Swisscom should be decreased by 30% on the basis of a new cost calculation method, confirming a decision of November 2003, against which the parties had appealed. The decrease would even have a retroactive effect. However, Swisscom is going to appeal this case, which will further postpone the decision for a period of several months to one year.⁷¹ Because of the fact that the regulator does not have *ex ante* regulatory power for this basic issue, the case may remain unresolved for as long as three years in a field in which market dynamics require more rapid responses.

Lastly, unlike the measures adopted at the EU level in 2000, the liberalisation act did not expressly provide for the unbundling of Swisscom's local loop. The impact of this restriction has been lessened in Switzerland by the cable access mentioned above. This gives a clear advantage to Swisscom in the "last-mile" segment, together with the possibility of setting the prices of leased lines. For this reason, unbundling has been a focus of public debate in Switzerland since 2002-2003, when a new parliamentary bill began to be discussed and was then submitted to Parliament on 12 November 2003. Some people are opposed to this measure and think that it might have a negative impact on investment.⁷² However, the available OECD data show that in 2003 public investment in telecommunications accounted for 2.38% of GDP in Switzerland, which was below the United Kingdom (3.72%) and Sweden (3.05%). It was comparable to Austria (2.8%) and Italy (2.8%), but higher than in France and Germany (1.3%). In percentage of telecommunications revenues, the rate was 17.4%, which was less than in Italy (29.6%) or

Sweden (18.6%) and barely higher than in France (16.9%).⁷³ The proponents of liberalisation base their arguments on the needs of the economy and the competitiveness of businesses. This would explain why the price of leased lines is still very high (Schöpfer 2003), which has a major impact on SMEs.

Initially, the Federal Council, favourable to unbundling (Deiss 2003), had amended the Ordinance on Telecommunications Services (OST) in February 2003 in order to make it possible, *inter alia*, to make both forms of unbundling (shared line access and full access) subject to interconnection regime. The Federal Council thought that there was a sufficient legal basis for opening up the last mile through regulation rather than legislation. ComCom, which supported the Federal Council's action and considered that there was a sufficient legal basis for introducing shared line access and full access, had handed down a decision to that effect in an interconnection procedure brought against Swisscom by TDC Switzerland (Sunrise) in July 2003. ComCom, which has the power to impose interconnection tariffs, thought that it could also impose unbundling in this case. This decision was appealed to the Federal Tribunal, which upheld Swisscom's appeal, finding that the amended Ordinance on Telecommunications Services (OST) did not constitute a sufficient legal basis to impose unbundling.

The present revision of the legislation on telecommunications must now therefore be accepted. Various proposals are currently going back and forth between the two houses of Parliament (LTE). This issue also entails determining whether there will be full access involving all wired infrastructures, including cable infrastructure, or whether it will be limited to the traditional wired communications network. The National Council had opted for unbundling limited to Swisscom's local loop during the autumn session of 2004. In July 2005, the Council of States decided in favour of full access, irrespective of infrastructure, including cable, interconnection, leased lines and broadband access. Consequently, this decision affects both Swisscom and Cablecom. However, one of the risks of this situation might be that it would lead to a virtual duopoly of Swisscom and Cablecom (OECD 2004), with the other telephone companies using Swisscom's network without installing their own infrastructure locally. As a result, to ensure effective competition in broadband access, the Council of States is proposing to exclude from the market operators who, three years after this provision enters into force, have failed to make the investment necessary to provide their own infrastructure. The law will be discussed further by the National Council in autumn of 2005.

With regard to mobile telephony, in 2002 a case involving a presumed horizontal price agreement by operators was brought before Comco. Initially, the three operators refused to answer the questionnaires sent by Comco in connection with its investigation.⁷⁴ This investigation was going to end at the beginning of May 2005, and its conclusions had been forwarded to the operators. At that point, the main operator, Swisscom, happened to realise that because of its high rates, its 4 million customers were reducing the number of minutes of monthly calls (112 minutes per month, as against 116 minutes one year earlier), resulting in lower monthly bills.⁷⁵ In this context, Swisscom announced the introduction of a 50cts per hour rate as from 1 June 2005 for a "liberty" subscription at 25 francs per month, which represents an implicit rate reduction of 40% and a 40% decrease in the termination charges billed for carrying a call on its network. Its competitors also reacted by announcing price reductions.

Implications for public policy

This review of the four sectors considered in this study shows that on the whole the infrastructure sector in Switzerland, although it has attained a high level of development and technological sophistication, is strongly influenced by the changes occurring in the European regulatory framework, and in some cases, by the strong national preferences expressed on issues such as rail service and local access to postal service. In fields in which there is a bilateral agreement with the European Union, regulatory changes have been implemented rapidly in order to harmonise the Swiss domestic framework. The air transport sector has experienced the most difficult transition, although the conditions of competition and service are now very comparable to those in other European countries, including the rapid development of low-cost airlines. In the rail sector, Switzerland has achieved a high level of development that the alpine regions of Switzerland's neighbouring countries can envy, in particular with regard to the preservation of the environment.

In the postal and telecommunication sectors, however, it appears that the gap between the Swiss regulatory framework and the framework being implemented at the European level entails a certain opportunity cost. This admittedly does not prevent Switzerland from having a high-quality level of services, but businesses cannot always find the services they need with the flexibility and at the cost that they require and their expenditures for access to communication technologies are high.

The study of these sectors also appears to highlight the difficulties being encountered in modernising the concept of "public services", which are often defined broadly, creating a certain confusion between ends and the means used to attain them. Switzerland's specific consultation process and the importance of direct democracy only increase this tendency. The fact is that in the postal and telecommunications sectors, the regulatory framework remains less open than at the European level and the definition of universal service more inclusive, with limited transparency with regard to the corresponding costs.

In comparison with the other OECD countries, Switzerland is only in the initial stages of defining and establishing independent regulators. Some of the agencies studied, with their status as offices, are in fact decentralised administrative departments within their ministry, DETEC, rather than independent regulators. It is true that, in the postal sector, the choices made and the informal management of the institutional framework are aimed at introducing independent regulation, but this is not enshrined in the legal framework. Certain regulatory functions, such as the management of train paths, have been identified in the rail sector as areas that should be subject to independent regulation. However, this has yet to be implemented and defined from an institutional standpoint. In the air sector, the situation is more complex, for some of FOCA's functions involve safety, others economic regulation and still others policy definition for the sector. ComCom in the telecommunications sector is the only genuinely independent body from an institutional standpoint, but it does not have its own department, unlike most regulators in the other European countries.

The remainder of this report will discuss the functioning and governance of the agencies in the four sectors studied, systematically introducing a comparative perspective. Consequently, the four following sections will be devoted to independence and accountability, cross-cutting architecture, the powers and functions of agencies and, lastly, performance evaluation. They will provide an opportunity to analyse the issues involved in an institutional and cultural transition that would enable Switzerland to continue to make its economy more dynamic and to modernise its public services by adopting structures more conducive to better integration at the European and international level.

INDEPENDENCE OF REGULATORY AUTHORITIES AND ACCOUNTABILITY CAPACITY

The institutional independence of administrative bodies is conceptually unfamiliar to the traditional Swiss system in which popular votes play a very important role and accountability is a major requirement. In contrast, the collegial nature of the Federal Council and the Swiss tradition of neutrality and consensus are such that a decentralised administration can operate in technical areas with a greater degree of freedom from immediate political pressure than comparable institutions in other OECD member countries. Federal Offices enjoy *de facto* a certain amount of functional autonomy, one reason being their relatively large size.

Institutional context

Independence, accountability capacity and the exercise of responsibilities must be viewed not only in terms of the legal framework, but also in the light of institutional practices and the political context.

Legal framework

The Swiss Act on the Organisation of Government and the Administration (LOGA)⁷⁶ provides for the creation of decentralised administrative units and federal legislation to be used to assign administrative duties to external public or private sector organisations and persons. The Act also provides for the delegation of tasks within an administrative framework, notably with regard to Offices, but does not clearly mention the creation of Independent Regulatory or Administrative Authorities similar to those existing in a number of European countries. Federal Offices are the administrative units responsible for dealing with case files, whose classification is specified in Ordinances.

The Ordinance on the Organisation of Government and the Administration (OLOGA)⁷⁷ relating to this Act specifies the general framework for administrative action, the principles governing activities and the attribution of decision-making powers (Art. 11-13). It also lists the units reporting to the decentralised administration (see Box 2). The Federal Communications Commission (ComCom), the Arbitration Commission for Rail Traffic (RACO), and the Air Accident Commission and bureaux of investigation into air and rail accidents are part of the decentralised administration.

The Federal Offices of Civil Aviation, Transport and Telecommunications are part of the central administration of the Federal Department of Environment, Transport, Energy and Communication (DETEC). The Competition Commission (Comco) and the Federal Banking Commission (FBC) are the decentralised administrations of their respective Departments, namely the Federal Department of the Economy and the Federal Department of Finance. However, the Act does not establish a precise general framework for the conditions under which decentralised administrations work and the degree of decision-making independence or autonomy can therefore vary significantly from one body to another. Furthermore, the Arbitration Commission governed by the Railways Act is described in connection with federal appeals and arbitration commissions.

The general framework for extra-parliamentary commissions is set out in an Ordinance⁷⁸ attached to the Act on the Organisation of Government and the Administration, Art. 57. These commissions may be established under a series of legal or sub-legal prescriptive instruments, for a fixed or indefinite period of time, and be given either an advisory or a decision-making role. The Ordinance makes solely the creation of extra-parliamentary commissions with decision-making powers mandatory under the Act. Others may be set up by decrees or acts of the Federal Council, a Department or the Chancellery. This Ordinance requires representation by sex, language, region and age group. The length of the 4-year mandate for members of the extra-parliamentary commissions matches that of the legislature of the Federal Chambers.

The cumulative length of several mandates cannot exceed 12 years. The Ordinance does not set out any precise conditions regarding conflicts of interest or independence with regard to the sector, nor does it impose any particular conditions on commissions in terms of consultation or quality regulation. The Ordinance does not specify a permanent status for members of such commissions, which is consistent with the Swiss “militia system” (non-occupational public service activity).

More specifically with regard to the authorities addressed by this report, the Ordinance on the organisation of the DETEC (Org DETEC)⁷⁹ sets out the tasks of the various Offices responsible for transport, civil aviation and communications, and specifies that the independent investigation bureaux are attached to the General Secretariat of the DETEC, which is also the case of the Postal Regulation Authority.⁸⁰ The Ordinance also stipulates that commissions with decision-making powers, which includes appeals bodies, ComCom and RACO, are respectively attached to the General Secretariat of the DETEC, OFCOM and FOT from an administrative standpoint.

Agencies studied

The agencies studied in the case of OFCOM, FOT and FOCA are Offices, bodies of the central administration of DETEC, and in the case of ComCom and the RACO extra-parliamentary commissions that are part of the decentralised administration and that have independent decision-making powers. At this stage, PostReg remains a DETEC body whose tasks are set out in a special Ordinance. Accordingly, the regulatory authorities studied include both bodies that are not independent *per se*, such as PostReg, and independent bodies like ComCom. Furthermore, Comco and the Federal Banking Commission have the attributes of independent bodies. There is also a Federal Price Supervisor who has powers often attributed to sectoral regulators in other countries and who certainly enjoys a degree of independence, although with limited resources. The Federal Data Protection Commissioner is another type of independent body in relation to public freedoms.

Among these authorities, solely those with the status of extra-parliamentary commissions enjoy any real degree of autonomy. One example is ComCom, whose status is defined in law and which has a fixed-term mandate of four years that is consistent with both the term of the legislature and the text of the Ordinance relating to extra-parliamentary commissions. This mandate nonetheless remains shorter than that observed in many OECD countries for independent regulators. However, ComCom does not have its own services, unlike other independent bodies with powers of intervention (Comco has a staff of around 60 officials while the CFB has 160). The other independent body is RACO in the rail sector, which acts as a quasi-judicial appeals body. The RACO comprises 7 members appointed for 4 years. The members work on a part-time basis given the low volume of activity (2 cases dealt with to date), and the secretariat is extremely small.

On the other hand, the directors of Offices that are not independent, such as FOCA, FOT or OFCOM, in practice enjoy a relatively high degree of administrative independence. The removal of a head of Office for political reasons appears to be relatively rare. The size of Offices and the status of Office Directors gives these officials a high standing within the Federal administration. Directors of OFCOM, FOCA and OFT are appointed by the Federal Council. The director of FOCA was obliged to resign in 2003 as a result of dysfunctions with regard to safety. However, Office Directors can receive instructions from the federal administration, except in the case of OFCOM, for the matters for which they are under the authority of the ComCom.

The regulatory authority PostReg has a special status in that it was set up explicitly as a regulatory body, similar to those found in other countries; however, it does not have any of the institutional attributes that would make it formally independent. Its Director is appointed directly by the Secretary-General of DETEC but, although tied to the latter, PostReg operates fully independently and occupies separate premises. This body created in 2004 is designed to evolve over time and to provide support for changes underway in the postal sector.

The possibility of appealing⁸¹ to DETEC against decisions taken by its Offices, which does not apply to Commissions, also reflects the dual nature of the regulatory bodies studied. However, under a special provision of the Telecommunications Act (LTC), no administrative appeals can be lodged against decisions taken by OFCOM. Administrative appeals are set to be abolished under the reform of the legal system currently in progress (see below). This will tend to increase the decision-making power of Offices by bringing them closer into line with other regulatory bodies, while at the same time increasing the legal codification of economic law.

Administrative and institutional culture

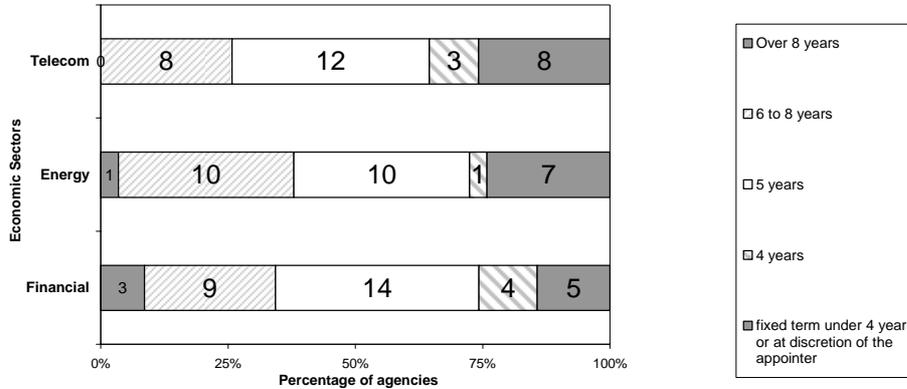
The independent commissions were set up in Switzerland in accordance with the Swiss “militia” approach (non-occupational public service activity), and were therefore given a simple structure often consisting in members serving for a limited period of time. In any case, given the small size of the country, the impacts of linguistic segmentation and the relative scarcity of expertise in highly specialised domains, it would sometimes seem to be difficult to take decisions fully independently. Independence with regard to certain specific interests may prove difficult to achieve in practice, often implicitly, in view of the desire to seek and maintain a consensus without creating conflicts that are too direct.

In addition, pressure from the referendum process prompts the drafting of bills that are relatively mute on given points, using Ordinances to cover certain aspects. This also applies to legislation providing for certain types of regulatory body, such as PostReg, or essential points relating to the powers or actions of regulators, as in the field of telecommunications. However, this has the drawback of creating a framework for limited institutional independence with powers that are equally limited, since solely action at the legislative level will allow, in a number of crucial instances, the necessary powers to be transferred. The recent dispute over the opening of local loop unbundling, and the relevant ruling by the federal tribunal, illustrates the constraints arising from the institutional context in the case of telecommunications. Conversely, action at the legislative level often entails significant delays, which need to be taken into account when the need to act swiftly narrows decision-makers’ room for manoeuvre.

An international perspective

As a general rule, the terms of the mandates of members of extra-parliamentary commissions such as ComCom or RACO are shorter than those of regulatory authorities in OECD countries in most of the areas concerned (see Figure 13).

Figure 13. Terms of appointment of regulatory authorities



In the telecommunications sector (see Annex 16), the members of ComCom have a 4-year mandate that is shorter than in most other OECD member countries. The terms of the mandates of regulators in France, Germany and Italy range from 5 to 7 years. Moreover, in France and Italy this mandate is not renewable, which enhances the capacity of regulators for independent decision-making. In most countries, the Minister cannot overturn decisions, this is the case for decisions taken by OFCOM, ComCom and the RACO but not for those of any of the other Offices. In some countries, matters can only be referred to government authorities in certain instances. In Canada, for example, the power to revoke decisions that have been appealed can be restricted by decisions taken by the Governor in council. In other countries, a decision can only be overturned by a special council: in the United Kingdom, the mergers and monopolies commission, and in Denmark the telecommunications consumer council. The members of the ComCom council are similar to those found in many other OECD member countries, but differ in that many members work part-time, apart from the Chairman who theoretically works a four-day week.

In some countries, the regulatory authorities in the postal sector have been merged with the telecom regulators (Annex 11). This immediately allows them to acquire the frequently high level of independence granted to the regulatory body for telecommunications, as in the case, for example, of France, Germany, the Netherlands, Finland and Sweden. The United Kingdom is a case apart in that it has created a special regulatory authority, the Postal Services Commission, which has a board made up of members appointed for three years. In contrast, in other countries where the regulatory framework has not evolved along similar lines, regulation continues to be managed at the Ministerial level, as is the case in Austria, Denmark and Spain in particular. In view of existing directives, the situation in a number of European countries is likely to change.

Safety management in the rail sector is generally the responsibility of Ministries of Transport, except in the United Kingdom which has an independent regulator, the Office of Rail Regulation (Annex 22). Rail paths are now attributed by an independent operator in most of the European countries mentioned (Annex 23), notably France, Italy, the Netherlands, Spain and the United Kingdom. In contrast, this is no longer the case in Germany and Austria.

In the air transport sector, the general supervisory authority for safety and regulation is independent in the United Kingdom and Italy, but not in France or Germany. The Netherlands makes use of a decentralised agency (Annex 6). Rail paths are usually managed by not-for-profit bodies which are independent of Ministries but which report to air transport operators in each of the countries studied (Annex 9), along fairly similar lines to the situation in Switzerland.

Slow changes managed within a specific institutional context

Swiss administrative and political culture, nurtured by a stable coalition government, and the pursuit of consensus and “concordance democracy” ensure that in practice government administrations enjoy wide-ranging technical and institutional autonomy as it is the case for Offices which have regulatory functions. It is not simply ministerial pressure *per se*, but rather the genuine expression of popular will, as exercised through referendums, which limits the leeway of the administration. Federal administrative services attempt to maintain and improve the integration of Switzerland into its international environment, notably at the European level, while at the same time taking account of the domestic situation. This has prompted the government to seek solutions that will ensure that regulatory bodies are genuinely independent, but only in sectors where strong external pressure made it necessary, as in the case of the WTO and the EU for telecommunications in 1998, for the RACO in the rail sector or even, in the near future, for the management of rail paths. However, and above all when there are no bilateral agreements in place, institutional forces have not always been sufficient to move the institutional framework forward in line with the one already established within the EU, as in the case of postal services.

The independent management of a number of strategic decisions also enters into potential conflict with an administrative culture geared towards direct active participation by the population. Ministers collectively assume their responsibilities within the Federal Council, which puts forward legislative texts which in Parliament must secure the assent of complex institutional majorities within parliamentary commissions that provide a channel through which a number of specific interests can express themselves. The shift to a regulatory model based on totally independent regulators insisting on technical proficiency represents a significant challenge in this respect. This shift requires the enactment of legislation that is harder to pass than Ordinances. In addition, such legislation is often part of an institutional “package” in which the reform of infrastructure sectors must be negotiated in the face of a strong attachment to public services and the need for a compromise that will secure popular support. Nonetheless, the experience of ComCom shows that this is more than feasible and that a culture of independent regulation can be readily introduced without major difficulties.

The development of a specific series of measures in terms of regulation and preservation of universal services against the backdrop of reforms to modernise the regulatory regime, could also be designed to promote the emergence of a consensus. “Economic deregulation” is not merely deregulation in that it includes “re-regulation” designed to ensure compliance with a number of rules and, in particular, transparent and fair competition in an open market. For example, in the postal sector, the award of concessions has gone hand in hand with an effort to specify uniform working conditions at the sectoral level.

Developing independence while encouraging accountability

The attempt to strike a proper balance between independence and accountability is aimed at promoting the transparency and accountability of the regulator by putting in place appropriate governance structures and an efficient appeals system, and by initiating a dialogue between regulators, Parliament and citizens to secure the credibility of regulators. All of this must take account of the administrative and institutional culture of different countries. Accountability may also be seen as a factor that promotes independence. Public dialogue and communication with Parliament allows independent regulators to consolidate the credibility of their actions and anchor their institutional reach. Major decisions with regard to infrastructure, whether it be, for example, rail or postal services, call for an open approach based on dialogue that also, in some instances, requires a commitment by executive government bodies.

Governance structures

The governance structures of independent regulators have a crucial role to play in securing their credibility as bodies wielding decision-making powers. Countries such as Canada or the United States, which were the first to establish such institutions, often chose to create them in the form of councils or commissions. A collegial approach allows internal discussion before adoption of a decision, which is advisable when conflicts of interests emerge. This also has the advantage of providing a better guarantee of compliance with decision-making procedures and sometimes makes it possible to strengthen the legitimacy and independence of the agency. The collegial decision-making procedure is found in many European countries. The composition of a commission and the number of its members are both equally important elements, and must, as far as possible, not only reflect the institutional diversity of a country but also promote technical proficiency. Lastly, the possibility of overlapping terms of office for the members of a commission helps bolster institutional stability. In contrast, the United Kingdom and several Nordic countries have opted to have a number of regulatory authorities managed by the same person.

Swiss extra-parliamentary commissions are collegial, but there are not overlapping mandates. Furthermore, the fact that their members, including their chairs, do not work full-time does not necessarily have a positive impact on the institutional standing of these bodies.

Appeals system

The existence of procedures to appeal against administrative decisions taken by regulators is a legal and democratic requirement which helps to ensure efficient regulation. Transparent appeals procedures prosecuted within reasonable time limits enhance the quality of regulation. In Switzerland, as in many other OECD member countries, the Constitution guarantees a right of appeal against decisions taken by the administration (Articles 29 and 30), covering the right to be heard and to be treated fairly within a reasonable period of time with regard to a claim brought before a competent, independent and impartial court established by law.

Current system

The right of appeal is laid down in federal laws, and in particular in the Act of 20 December 1968 on Administrative Procedure (LPA) and the Federal Act on the Organisation of the Legal System of 16 December 1943. The first of these sets out the grounds on which appeals may be made against administrative decisions (Art. 44). It also specifies the appeal procedures and provides for an initial administrative appeal, at the level of the Department, against decisions, unless a provision has been made in law for appeal under administrative law to be referred directly to the Federal Tribunal. The appeal in the first instance is brought before Appeals and Arbitration Commissions, organised in accordance with the Ordinance of 3 February 1993, which break them down by Department. For the DETEC and its Offices, this is the responsibility of the Appeals Commission for Infrastructure and the Environment (CRINEN) – formerly the Appeals Commission for the DETEC. For matters relating to competition further to decisions made by Comco, an Appeals Commission for Competition Matters has jurisdiction (see Table). At all events, the Federal Tribunal is the highest instance of appeal. The Federal Act on Organisation of the Legal System provides that the latter should hear in the final instance all appeals under administrative law against decisions (Art. 97) taken by its Departments (Art. 98 paragraph 1 sub-paragraph B) and Federal Appeals Commissions (Art. 98 paragraph 1 sub-paragraph e). The Federal Tribunal can also, in certain cases provided for in the Act, act as the first and final instance of appeal against decisions taken by regulators, which is the case for both ComCom and RACO. The current system has one major disadvantage, however, in that it fails to provide for a single jurisdiction of first instance for decisions taken by sectoral regulators and those taken by Comco. This also has the result of creating a degree of disparity between regulators and sectors.

Table 2. Appeals system before and after the current reform of the legal system

Name of authority	Current system				System after revision of the federal legal system	
	Administrative appeal	First instance	Final instance	Schedule	First instance	Final instance
Communications Federal Office of Communications (OFCOM)	None (Specific LTC system)	CRINEN ² (LTC 1997 Art. 61)	Federal Tribunal	CRINEN: 289 days in 2003 TF: 109 days in 2004	Federal Administrative Tribunal	None
Federal Communications Commission (ComCom)	None	Federal Tribunal (Art. 6, LTC 1997)		TF: 109 days in 2004	Federal Administrative Tribunal	None
Post Postal Regulatory Authority (POSTREG)	DETEC ¹	CRINEN (Art 36, Ordinance on the Post Office)	Federal Tribunal	CRINEN: 289 days in 2003 TF: 109 days in 2004	Federal Administrative Tribunal	Federal Tribunal
Aviation Federal Office for Civil Aviation (FOCA)	DETEC	CRINEN	Federal Tribunal	CRINEN: 289 days in 2003 TF: 109 days in 2004	Federal Administrative Tribunal	Federal Tribunal
Rail Federal Office of Transport (FOT)	DETEC	CRINEN (Art. 11, LCdF de 1957)	Federal Tribunal	CRINEN: 289 days in 2003 TF: 109 days in 2004	Federal Administrative Tribunal	Federal Tribunal
Rail Arbitration Commission (RACO)	None	Federal Tribunal		TF: 109 days in 2004	Federal Administrative Tribunal	
<i>Future rail path management service</i>					<i>RACO</i>	
Competition Policy Competition Commission (COMCO)	None	REKO/WEF ³	Federal Tribunal	REKO/WEF: 293 days in 2004	Federal Administrative Tribunal	Federal Tribunal

Source : presentation based on data supplied by the Federal Office of Justice.

(1) According to Art. 47a of the Federal Act on administrative procedure, the department is the first instance of appeal against decisions made by Offices, unless an administrative appeal is directly lodged with the Federal Tribunal.

Implications of the legal reform currently in progress

A far-reaching reform of the organisation of the federal legal system will modify the structure of the Federal Tribunal and its procedures,⁸² the previous levels of jurisdiction and the appeals procedures that can provide access to them. The aim is to introduce subsidiarity into the appeals process in order to lighten the load on the Federal Tribunal, which must only rule as the authority of final instance after all of the other legal channels provided for under federal or cantonal law have been exhausted. This reform was accepted by the population and the cantons on 12 March 2000. It comprises three new Acts for which Article 191a provides the constitutional basis: the Federal Tribunal Act (LTF) of 2003, the Federal Criminal Tribunal Act (LTPF) of 2005 and the Federal Administrative Tribunal Act (LTAF) of 17 June 2005.

This reform provides for the creation of a Federal Administrative Tribunal, in principle in 2007, which will have implications for regulatory bodies. The remit of the Federal Administrative Tribunal will be to rule on disputes in public law that fall within the jurisdiction of the federal administrative and therefore of sectoral regulatory authorities, thereby replacing federal appeals and arbitration bodies and also departmental appeals services. These commissions will henceforth be incorporated into the Tribunal. In addition, the previous administrative appeals process has been abolished. Appeals against rulings by the

Federal Administrative Tribunal can be lodged with the Federal Tribunal, except in areas where the Federal Tribunal Act does not give the latter jurisdiction as, for example, in the area of telecommunications (Art. 78 of the LTF) where decisions by the Federal Administrative Tribunal are final. This was motivated by the need for speed in a sector where technological change is particularly rapid, whereas under the current system, in view of the length of the various successive appeals procedures, it can take up to 4 or 5 years to secure a final ruling, as proved to be case with regard to interconnection. This applies to both OFCOM and ComCom, whose rulings will be referred in the first and final instance to the Federal Administrative Tribunal, which will unify appeals procedures in the telecommunications sector.

The new system will not involve any major changes in appeals against decisions by Comco, which will be referred to the Federal Administrative Tribunal in the first instance and subsequently to the Federal Tribunal. It remains to be seen whether this can effectively lead to jurisdictional unity in which rulings are handed down within a similar competent body for all economic issues relating to regulation and competition.

Dialogue with parliamentary bodies and civil society

Relations with Parliament

In many OECD member countries, the regulatory authorities wish to maintain a dialogue with Parliament in order to be part of the democratic debate as well as to signal their independence from Ministerial bodies. This practice is widespread in Switzerland in that the institutional dialogue is relatively sophisticated in a small country with active parliamentary commissions.

Most of the regulatory authorities studied, from the smallest to the largest, publish an annual report. In the air transport sector, the FOCA issued annual reports from 1998 to 2003, but not for 2004⁸³ which was the year in which it was radically restructured. OFCOM and ComCom have also published annual reports from 1998/99 to 2004. PostReg, created in early 2004, issued its first annual report in July 2005. FOT publishes annual reports, as well as RACO, which despite its low level of activity has published annual reports from 2000 to 2004. In most cases, these reports are primarily destined for the Department overseeing or responsible for the authority.

These reports are presented publicly but are not individually debated in Parliament. However, it might be worthwhile to encourage the discussion of regulatory issues in Parliament, for example by organising public hearings following the submission of annual reports. An annual report could also set out options for reform and make general recommendations for the attention of government, while explaining the principles on which the regulatory authorities operates and by promoting transparency. This presentation to Parliament could ensure that proposals of amendments to the legislation, and the work of parliamentary commissions, to be driven by an approach based on regulatory quality.

Direct dialogue with citizens and the media

Popular votes play a significant role in Switzerland, given the country's system of direct democracy. This process places great emphasis on the press, the Internet, the public media, as well as specific groups concerned by the public debate on, for example, transport, the environment or the maintenance of public services. The regulatory authorities must establish and maintain their reputation in this debate. In addition the linguistic diversity that is one of the defining factors in the country must be taken into account. The practice of popular voting encourages federal bodies, and the Federal Council in particular, to take part publicly in debates.

All the regulators studied maintain multilingual Internet sites providing key information to citizens and firms. Reports are systematically published on these sites, which also provide press releases and

conferences; this approach has been taken one step further by ComCom which has adopted a proactive communications policy with regard to the media. Local loop unbundling and regulation of the postal service have given rise to large-scale public debate. However, public media coverage still tends to focus on decision-making bodies within the DETEC and the corresponding federal advisor rather than on those responsible for managing the regulatory authority as such. This takes account of the relatively narrow scope of the powers currently devolved to ComCom and the other regulators, and also the fact that the subject of the debate is partly increasing its powers to promote interconnection and local loop unbundling.

The Federal Council has embarked on a major renovation of the provision of public services. However, this framework has merely been discussed in a parliamentary communication and not in a broader consultation with the population. Taking this issue to a wider public would undoubtedly move the process forward. Dialogue with citizens and the media is an important means of bolstering the legitimacy of agencies, particularly if their remit is to gain greater independence. However, aspirations towards greater openness must aim to strike a balance between public consultations to enhance the legitimacy of regulators and the organisation of confidential meetings, particularly when major public or private interests are at stake.

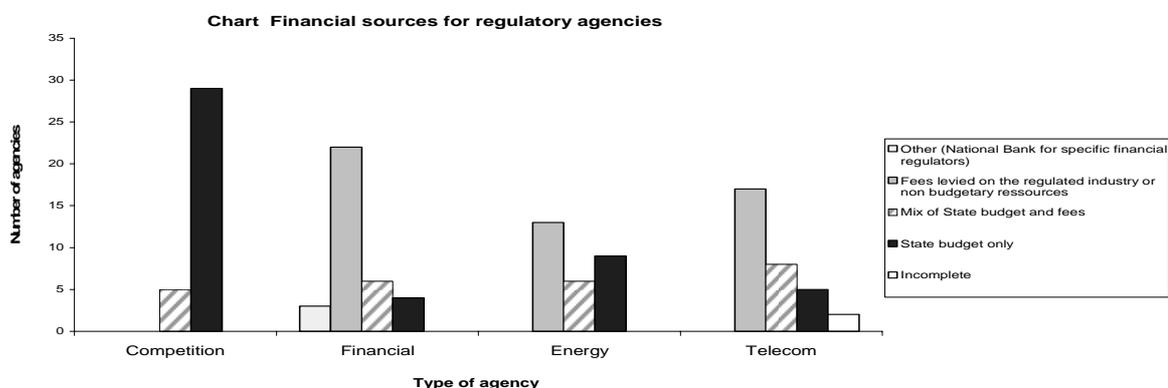
Human and financial resources guaranteeing the independence and quality of the regulatory body

Adequate human and financial resources are major factors in the independence of regulators and effectiveness of their actions. One of the main factors in independence is the technical expertise of staff. Agencies must be capable of formulating independent opinions on issues without having to call upon external skills. This is achieved in Switzerland, as in many other OECD member countries, against a background of budgetary rigour.⁸⁴

Financial resources

As in other OECD member countries, the regulatory authorities are funded either out of revenue from the federal budget or by specific charges levied in the sector. The duties as such of regulatory authorities generally account for no more than a relatively modest expense from a macroeconomic standpoint. Moreover, the possibility of funding from non-budgetary sources tends to enhance authorities' independence from the political executive, even if it can increase their economic dependency with regard to the sector.

Figure 14. Sources of funding for regulatory authorities in OECD member countries



Source: Preliminary data collected by the Secretariat from published sources.

In Switzerland, there is a fundamental difference between FOT's budget and that of the other Offices. The FOT budget, amounting to CHF 4.2 billion, is financed entirely out of the public purse, even though there is income from certain taxes on licences in the rail sector. It is one of the largest budgets of the Confederation, given the scale of the rail programmes in progress. This reflects the multi-faceted role of the FOT which both regulates and manages investment. By comparison, the budgets of the other authorities are more modest, which is consistent with the size of regulatory authorities in most countries. FOCA and OFCOM have the largest budgets of the remaining regulatory authorities. The budget for FOCA is funded out of a mix of federal budgetary resources and specific taxes levied by the Office, whereas OFCOM, for the telecommunications⁸⁵ part, and ComCom are funded entirely out of income from concession fees and dues. In contrast, ComCom's budget is extremely limited, reflecting its status as a "militia" administration (non-occupational public service activity) with part-time members. The same applies to the RACO budget. Nonetheless, as a result of the very low level of activity of this commission, only 41% of its budget was spent in 2000, 50.8% in 2001, 46.9% in 2002, 47.4% in 2003 and 59% in 2004. Lastly, PostReg, given that it is neither an independent regulator nor even a decentralised agency does not have a budget of its own.

The set of regulations that currently apply to public finances appear to allow Offices to enjoy a certain degree of financial autonomy. It is worth noting that the fees paid to the members of extra-parliamentary commissions, and therefore of the corresponding regulatory authorities, are not currently published, for example on the Internet. This issue was addressed in a report by Federal Council in response to the Bühlmann postulate of 22 March 2001, even though it seems possible that specialised commissions of the federal parliament may have access to this information in the future.

The overall level of financial resources seems to be above all a subject of discussion in the transport sector. With regard to rail transport, FOT budgets are usually discussed as part of the national debate over rail investment. The level of FOCA funding has been the subject of major discussions, given the shortcomings noted with regard to safety that were attributable to a lack of skilled resources. A major effort has been made since 2004 to increase its resources.

Human resources

Regulatory authorities need to have a sufficient number of motivated and highly skilled staff to be able to carry out their duties as effectively as possible. This poses particular problems in Switzerland which is a small country where specialised skills are relatively rare, a problem compounded by a buoyant economy which ensures that there are attractive alternatives to a career in a Federal Department. Shortages of skilled personnel are starting to emerge in a number of sectors, a case in point being air traffic controllers.

Human resources was one issue that FOCA, which in the past had a smaller workforce than most other comparable agencies (180 employees prior to the recent reforms compared with 230 for IVW in the Netherlands, see Annex 7), has had to confront. The recent difficulties prompted the agency to increase the number of staff concerned significantly and the current establishment now amounts to 230 employees in accordance with the report on the NLR study. However, the number of accident investigators appears to be as small as it was in the past, and remedial action could also benefit the accident investigation bureau (Annex 8). With regard to air traffic control, the number of Skyguide officials is slightly higher than that of the Dutch agency, although air traffic density in Switzerland is high, added to which Skyguide also has to provide, free of charge, air traffic control services for military air space, which sets it apart from comparable bodies in other countries.

The other regulatory authority that appears to have relatively low human resources is PostReg (Annex 12). With a staff of 7 officials, it is hard to imagine how it could operate as a fully independent agency. The question has also arisen in other OECD member countries where the staff numbers concerned, even though they cannot be readily assessed, appear to be consistent with the current establishment of PostReg, *i.e.* less than a dozen in Finland, Denmark, Ireland or the Netherlands. In many countries these officials are equivalent in number to the staff of a postal regulation unit integrated into the more general framework of a regulator in charge of all issues relating to communications, telecommunications and postal services included. This allows postal regulators to be integrated into authorities that are generally of sufficient size and properly endowed with human and technical resources.

The “militia” system (non-occupational public service activity) in Switzerland means that those in charge of regulatory bodies are only offered part-time duties. While this has the benefit of attracting high-quality skills to jobs for which such skills would not necessarily be available on a full-time basis, it would nonetheless seem that in regard to the bodies supervising regulatory authorities this practice might adversely affect their ability to impose their presence and authority in public discourse. It would seem that in most other European countries the duties of the head of regulatory authorities are among the most prestigious and well paid in the civil services concerned and that they are also discharged on a full-time basis.

The human resource management rules of regulators must make it feasible to achieve a certain degree of independence, not only with regard to ministries but also with regard to the private sector entities they regulate, by allowing them to settle conflicts of interest as satisfactorily as possible. However, this is somewhat delicate in the case of Switzerland where, in view of the scarcity of independent expertise, at academic level for example, the question of the objective neutrality of expertise often arises. In addition, current practices with regard to the status of the federal civil service and that of the members of extra-parliamentary commissions do not make any specific provisions that would make it possible to avoid conflicts of interest with the sectors regulated. There do not appear to be any rules requiring those who have working in regulating a given sector to wait for a specified period of time before accepting employment in that sector. Rules to this effect have been introduced in other countries, sometimes imposing bans of up to five years to ensure that senior officials cannot be influenced in their regulatory decisions by concerns over their future professional career in the sector. This nonetheless requires matching adjustments to career paths within the public sphere.

Implications for public action

It is essential to continue with the institutional modernisation of the infrastructure sector in Switzerland. Communications and transport cannot function efficiently in a small country without a high degree of openness at the international level. Independence may be seen as a means of meeting these long-term objectives by creating an environment that is favourable to innovation and growth and by promoting confidence and transparency in consultation with the private sector.

The independence of regulatory agencies is yet another new factor in the Swiss administrative context. To date, there is a lack of sufficiently independent regulatory authorities, and also of significant powers of intervention, in the institutional landscape. Although an independent agency has indeed been set up in the telecommunications sector, it does not have its own secretariat and its powers, particularly with regard to interconnection, remain limited. Comparable authorities in other sectors, although they enjoy a relative degree of independence, are not, in practice, independent.

As part of the process of opening up markets to Europe, such independence nonetheless plays a crucial role in clarifying the position of the State as regulator vis-à-vis the State as shareholder in the sectors concerned, given that the Swiss Confederation still has a majority shareholding in several network operators in the rail, postal services and telecommunications sectors. The decentralised context of administrative practices, combined with a friendly political approach, allows a number of agencies to operate on a clearly independent basis, even though the latter is not laid down as such in the legislation as is the case in the postal sector. However, there are limits to the scope for incorporating effective reforms into a long-term incremental outlook, resulting in cumulative delays in certain areas. Furthermore, this tends to add to the *ad hoc* nature of the institutional solutions put in place. The costs incurred through the lack of independent regulation may well rise in the future. In some areas, this is one of the conditions of the framework agreements signed with the European Union, as in the case of the management of rail paths.

Giving greater independence to agencies must be accompanied by the clear and unambiguous definition of their missions and powers, as well as a redefining of their relationship with Departments. As part of the consensual approach and transparency that are the hallmark of the Swiss regulatory system, the independence of these authorities would not be conceivable without clearly defining the responsibilities of regulators, their ability to inter-react with public opinion and parliamentary bodies, and providing for transparent and effective legal appeals procedures. Indeed, the latter are part of a wider reform of the legal system.

HORIZONTAL INSTITUTIONAL ARCHITECTURE

The regulatory authorities are part of an overall regulatory system which must be viewed in the light of “government as a whole”. This means that account must be taken of transversal institutional architecture, and the definition of the role of authorities and their relationship to the institutional environment, which includes the competition commission, the Price Supervisor and the bodies assigned to look after consumer interests.

Issues relating to transversal architecture by function or by sector

Horizontal specialisation can take a variety of forms according to regulatory system. Regulators may be entrusted with one or more sectors, and also with one or more functions within the sector(s) in question. It is uncommon for a regulatory authority to have merely one mission. A regulator in the telecommunications sector, for example, may well supervise the supply of universal services while at the same time playing an economic role. The agencies studied in this report above all play the role of economic regulator, but there is also a safety component that plays an essential role in the case of the FOT and FOCA.

A wide ranging sectoral competence is usually desirable since it allows greater distance to be placed between regulators and individual interests. However, regulators operating in a single sector often have several functions and therefore several objectives. They may be called upon to take decisions relating to public strategy that involve arbitrating between equally desirable objectives. This is not a suitable role for an independent regulator which can operate on the basis of clearly identified objectives from a technical standpoint but which has no democratic legitimacy to make political trade-offs.

The disadvantages of having several objectives and functions can theoretically be limited by establishing specialised regulators with a clearly defined function, one that is clearly aimed at market efficiency in some cases or safety in others. However, increasing the number of regulatory bodies poses problems in a small country like Switzerland where the human and technical resources of administrations are constrained. A larger number of agencies can add to the complexity of co-ordination and increase the risk of capture of institutional rigidities and the difficulties inherent in managing wider sectors against a background of technological convergence.

Institutional architecture by sector

In the case of telecommunications, the combined field of competence of OFCOM and ComCom is comparable to that of independent regulators in many other countries. However, the decision to create dual regulatory bodies, with responsibilities divided between OFCOM and ComCom, is original. The only other country apart from Switzerland to have two regulatory authorities is Austria. OFCOM corresponds to central administrative departments which, by virtue of the LTC, have been given greater autonomy than other sectors in view of the fact that there are no administrative appeals. ComCom has been given powers that were to be transferred to an independent body, primarily to separate the function of regulator in the granting of licences from the function of owner. This institutional duality has doubtless been chosen in a deliberate move to ensure that OFCOM is not broken up as part of the reform of the telecommunications sector and in view of the constraints in terms of human resources. It offers the possibility of combining the media part (hertzian diffusion and radio and television broadcasting) with the telecommunications part. In this respect, OFCOM must take account of linguistic diversity objectives and respect for the territorial dimension. This institutional instrument involves an overlap of responsibilities between ComCom and OFCOM and a two-fold remit for OFCOM depending upon the nature of the subjects dealt with.

In the rail sector, FOT has all the powers concerned not only for the sector but also for transport as a whole, akin to Ministries in other countries. The existing independent body, the RACO, plays a marginal role. In a context in which it is planned to create a rail path allocation department, it is worth asking whether it might not be advisable to identify a number of functions within the FOT that could be assigned to an independent authority and to consolidate them with the CAF. This would make it possible to set up a separate rail regulator which could be given responsibility for rail path allocation and management, dispute settlement bodies, such as the RACO, or even the licensing of operators. FOT could be left with the general policy formulation, the management of investment policy, the power and status of owner of CFF as well as competence with regard to other sectors in the field of transport.

With regard to postal services, PostReg has powers that are defined in relation to the universal service, that still remain limited and that do not necessarily extend to the whole of the sector. A number of other countries have decided to consolidate their post and telecommunications regulatory authorities in view of the small number of staff working for the postal service regulators and the process of convergence between communications media such as electronic mail. This is the case, for example, in Germany and France, both of which are far larger than Switzerland. It may be possible to learn lessons from these trends, since there is no provision under Swiss law for the independence of PostReg which remains attached to the Secretariat of the DETEC.

Lastly, FOCA is competent within a clearly delimited sector, with a situation similar to that found in a number of countries.

Functional architecture

The situation of the authorities concerned varies. The objectives of PostReg, OFCOM and ComCom appear to be those that are the most clearly defined from an economic perspective. Those of FOT and FOCA are couched in general terms which do not always make it possible to identify the precise objectives that can be used to determine what the decision-making parameters of these authorities actually are.

The specified objectives of OFCOM and ComCom include ensuring effective competition, a reliable universal service at an affordable price, and generally a variety of attractively priced, high-quality services. As in most OECD countries, the regulation of telecommunications encompasses that of the universal service (Annex 19). In theory, a fees mechanism exists in this area, but a cost estimate does not appear to be available at this stage. The licence for the universal service has been awarded to the historical operator until 2007. The fee is only to be levied if the estimated costs of the universal service are higher than the income generated, which has not been the case until present. PostReg also has relatively clearly defined objectives which are geared towards oversight of delivery of the universal service and development of competition as part of the gradual opening-up of the market. The issue of universal service is far more sensitive in the postal sector, which reflects the weight of certain political and regional sensitivities with the role of the unions. PostReg takes charge of the secretariat for the Post Office Commission.

The roles of FOT and FOCA reflect the significant history of these offices since the Aviation Act of 1948 and the multitude of legislation in the rail sector, notably the Railways Act of 1957. FOCA has a role that is defined highly generically in relation to the “surveillance of aviation over the entire territory”. This masks a duality and implicit tension between two different functional objectives, as noted in the NLR report. The first objective relates to economic development and support for the sector, whereas the second is aimed at protecting the safety of passengers. Following publication of the NLR report, the internal organisation of the FOCA was revamped and now reflects more clearly the objectives of its various components with three divisions devoted to the technical safety of air transport movements and infrastructure and one division in charge of strategy and aeronautical policy. However, this architecture continues to maintain, even within FOCA, objectives relating to both economic development of the sector and safety, even though they are both managed by different entities.

The objectives for economic promotion are themselves disparate, which does not make it possible to clearly identify the role to be played in stimulating competition or in the monitoring of the price of supplying services, to provide a service at the fairest price with regard to both transport and ground services or air navigation services. The economic objectives can indeed, and quite legitimately, include other elements relating to the development of airports, the safeguard of interests in the sector and the development of the regulatory framework which are quite distinct from economic regulation in the strict sense of the term. In view of the existence of a bilateral agreement, the opening-up of the sector to competition is admittedly guaranteed and it is up to the European Commission to take a stance on price levels for flights within Europe. However, this fails to address certain aspects such as the optimisation of ground services.

In the rail sector, while the RACO has precise and restrictive objectives imposed by European packages, the FOT has objectives that are defined very generally. One objective is clearly to ensure rail transit services through the Alps and to increase the share of public passenger transport. This reflects a collective choice by Swiss society. The data available in this regard show a sharp difference in the trends observed in the distribution of freight or passenger transport in Switzerland compared with neighbouring countries such as France or Italy. In its own presentation, FOT appears in the triple role of an infrastructure agency with a construction division, a technical agency in charge of safety and surveillance, and lastly a traffic management agency. General infrastructure-related functions cannot be subject to independent decisions since they must reflect the political choices made by the Confederation as a whole, given the resources allocated to infrastructure. Opening-up to competition, on the other hand, is not a general objective. This functional organisation, which is similar to that prevailing in other European countries, might however require some changes or a recasting of objectives in a more open context, given the need to put in place independent oversight of rail paths. The excellent technical performance of Swiss trains and results achieved in this area to date have not required any review of functions in this sector, as was the case in the air transport sector. Conversely, potential upsets, such as the breakdown observed in June 2005, might ultimately cast doubt on this form of functional organisation and might in particular suggest action to increase the role of independent regulation in the sector.⁸⁶

Co-ordination with other agencies

Co-ordination of regulatory authorities can take one of three guises: application of a common doctrine for the implementation of regulations; co-ordination of decision-making timetables; and co-ordination of compliance schedules. Co-ordination makes it possible to minimise the burden imposed by the obligation on the parties concerned to apply regulations. An overall review would provide an insight into the overall performance of the regulatory system and the mutual relationships between key components of that system which would pave the way towards lightening regulatory burdens and improving the efficiency of regulations. In Switzerland, this primarily applies to relations with three bodies: the Price Supervisor, the Competition Commission and the Federal Consumers Bureau with its associated advisory commission.

Relations with the Price Supervisor

The Federal Price Supervisor, established in response to a popular initiative, is a specific institution, created under the Federal Law of 20 December 1985 as amended in 1991,⁸⁷ whose task is to prevent excessive price increases or unwarranted price maintenance by cartels and powerful firms in the market. The Price Supervisor uses a staff of around a dozen officials to monitor prices. If an excessively high price is noted, the Supervisor must attempt to settle the matter amicably with the parties concerned. If agreement cannot be reached, the Price Supervisor can forbid the excessive price increase or maintenance of an excessive price by issuing a decision against which an appeal can be lodged with the Appeals Commission for Competition Matters. In the case of prices set or approved by a political body, the Supervisor's powers are limited to the right to make a recommendation. The Supervisor's opinion must be systemically sought

by these authorities before they make any decision regarding a price increase. This recommendation must be specified in the decisions which in turn, where appropriate, must provide a detailed explanation of the reasons for which the Price Supervisor's opinion was not followed.

The Price Surveillance Act was introduced as a part of Switzerland's competition policy and applies to situations where price levels are not the outcome of efficient competition. The Competition Commission is responsible for ensuring efficient competition. The Price Supervisor only takes specific action in cases where there has been a failure to establish efficient competition or where the latter is not desired due to the existence of higher public interests. The Act provides for mechanisms for close co-operation with Comco, which have been analysed in another chapter of this report.⁸⁸ In addition, the initial legislation was amended by a second popular initiative in 1991 which extended the powers of the institution, enabling it to issue recommendations regarding set prices that have been either approved or monitored under other legal provisions. The Price Supervisor enjoys strong popular support. While the Act does not precisely specify the length of the mandate or the conditions for institutional independence, in practice the Price Supervisor has a high degree of autonomy: the mandate of the previous Supervisor lasted for almost 8 years.

This regulatory framework therefore provides a clear legal basis for action to be taken by the Price Supervisor in the sectors concerned. The regulatory authorities studied have certain powers of intervention with regard to prices, which implies closer co-ordination with the Price Supervisor. In many other OECD countries, however, it is the responsibility of the independent regulatory authorities to regulate the prices practised by firms in a monopoly position or with strong market power. Nonetheless, there is a fundamental difference between the action of the Price Supervisor, which is often taken *ex post* (unless recommendations have been made by other authorities), and the powers devolved to sectoral regulatory authorities which are in most cases exercised *ex ante*.

The intervention by the Price Supervisor does not apply to the tariffs practised by air transport companies, where there is a relative degree of competition and where other regulatory provisions apply. In contrast, the Price Supervisor focuses on tariffs relating to the use of airport infrastructure and air safety. The Supervisor recently analysed airport taxes in Geneva, Lugano and Zurich. In the case of Zurich, he recommended that the increase in "passenger" taxes should be limited to a maximum of 10% and made contingent on the entry into service of a new terminal. However, FOCA approved the tax increase of around 50%, but decided, partly in accordance with the Price Supervisor's recommendation, that this increase should not enter into force before the commissioning of the new terminal.

With regard to the railways, CFF tariffs have only been reviewed sporadically and in both instances an amicable agreement was reached with CFF. CFF's price adjustment of May 2002 was not considered to have been excessive. The Price Supervisor intends to step up his action in this area in the future in order to develop, in collaboration with CFF, a set of pertinent data and indicators. Another intervention concerned transit flows of automobiles carried by rail by the company BLS through the Lötschberg tunnel, where detailed analysis of the accounts by the Price Supervisor concluded in favour of a lower price. An amicable agreement was reached.

The Price Supervisor can also make recommendations (Art; 14 LSPr) with regard to the prices for reserved postal services, which are approved by DETEC. The Price Supervisor has on several occasions issued recommendations regarding changes to the rates charged for services provided on a monopoly basis, recommendations that have usually been followed. In 2001, its recommendations not to increase the price of letters weighing up to 100 g were followed by DETEC, given that this activity was returning a profit. In contrast, changes to the rates charged for parcels were accepted. The increase in postal rates for 2004 were aimed at determining whether network losses should be borne solely by the mail sector, since the deficit of the mail unit appeared to be a result of bearing costs not covered by the postal network. The Price Supervisor felt that, in view of the healthy overall situation of the business mail unit, the adjustment was

not warranted from an economic standpoint, but that if it were decided politically that the postal network deficit should be covered by the mail sector, this should be complied with within the framework of a clearly stated services mandate. DETEC accepted the price increase requested by the Post Office for standard mail, but rejected the increase for larger format letters on the grounds that solely rates charged for products covered by the monopoly could be used to fund postal network infrastructure costs not covered elsewhere.

The Price Supervisor has also regularly intervened in connection with cable subscription taxes, the increase in which was justified by the need to modernise networks. The question is whether viewers or future Internet and telephone subscribers should finance the cost of modernising the network used to provide additional Internet and telephony services. Unlike some operators, the Price Supervisor is of the opinion that costs of modernisation should not be passed on solely to viewers and listeners, since the planned future investments will be used to supply new services. In 2001, the Price Supervisor for the first time used the decision-making process to impose a price decrease on a regional TV network operator, the Antennes Collectives de Télévision SA (ACTV). An appeal against this decision was subsequently lodged with the Appeals Commission for Competition Matters, following which the Federal Tribunal ruling on an appeal confirmed the decision by the Price Supervisor. In another case in October 2004, the Price Supervisor reached an amicable agreement with Cablecom after lengthy negotiations, under which the monthly taxes charged for the TV network could not be increased contrary to the plans of Cablecom. It is only in 2006 that Cablecom will be allowed to increase the tax by 7.7%, since the Price Supervisor felt that neither Cablecom's expenditure nor a price comparison could justify the 28% increase planned for 1 January 2005.

The dominant position that Swisscom enjoys with regard to network access calls for some degree of regulation. The Price Supervisor has the right to make recommendations to ComCom concerning interconnection prices and conditions, and also the provision of universal services over which the latter is competent. The Price Supervisor has adopted a position with regard to the planned amendments to the Act and Ordinances on telecommunications. Many cases have been examined. In 1998, the Price Supervisor demanded that Swisscom annul its increase in the sales price of telephone addresses of more than 400%. Swisscom was also obliged to supply the data needed to analyse the charging of excessive prices. In 2001, in accordance with the opinion issued by the Price Supervisor, the Federal Council rejected the increase in the price of telephone connections, and also imposed the calculation of expenditure not covered by the universal service on the basis of the book value of facilities and not their replacement cost. The Price Supervisor also recommended to OFCOM that it register domain names and reached an amicable agreement with Switch in 2001. In 2003, numerous complaints were reported with regard to the price of calls from mobile telephones with termination fees, international roaming, high-speed Internet access, new Swisscom taxes on some types of call from public telephone cabins and excessive prices from value-added services. Moreover, the Price Supervisor supported the argument put forward by ComCom with regard to Swisscom connection charges.

Nonetheless, the role and future of the Price Supervisor are the subject of public debate,⁸⁹ as the issue once again came to the fore in 2004. After review and hearing with the parties concerned, the Federal Council decided to keep the Price Supervisor, although it was acknowledged that a review in greater depth would be needed. The second review will aim to make a cost-benefit analysis of the options for potential changes to the current system, ranging from integration of price monitoring activities into the various sectoral regulatory authorities to integration in Comco.

Co-ordination between regulators and the Competition Commission (Comco)

Co-ordinating between sectoral regulatory authorities and the competition authority in order to remedy existing or potential overlaps in the assignment of their respective responsibilities is a major problem. It positions itself in the context of an “overall government stance” that aims to promote competition uniformly across different sectors of the economy.⁹⁰ This poses the question as to the relative responsibilities of the two types of authority and the role of bodies other than Comco in promoting competition in their respective sectors. A clear division of tasks between authorities and harmonious co-operation are prerequisites for the regulatory system to function properly as a whole. Differences in approach may arise, notably when sectoral regulators are obliged to take account of objectives that are unrelated to competition such as rules of prudence, safety or universal service.

The OECD has defined four main configurations for the relationship between regulators and competition authorities⁹¹:

- Regulators are the main enforcers of compliance with the competition legislation applicable to their sector, where such legislation exists;
- Competition authorities are also the main economic regulators;
- If there is not economic regulation in one or more regulated sectors, the competition authority applies general competition law to achieve all or part of the objectives of economic regulation;
- There is a general division of labour by mandates; competition law is the sole preserve of the competition authority and regulation that of the economic regulators.

As a general rule, it is somewhat difficult to classify Switzerland according to these four categories in that the role of the independent regulatory authorities is still at a relatively early stage. There are for example numerous exceptions within the LCart, for State-organised regimes, which make certain firms responsible for the performance of public activities by granting them special rights (Art. 3, paragraph 1 LCart). Public passenger transport, and rail in particular, are the exclusive right of CFF and other rail companies. Licences are awarded by FOT, which also regulates network access charges. The Swiss Post Office also has a monopoly on services that are reserved within the framework of the universal service, which is monitored by PostReg. These elements would tend to classify Switzerland in the first of the above categories. Moreover, Swiss holds exclusive rights in the air transport sector to a number of routes by virtue of bilateral agreements, notably with non-EU countries. Skyguide also has an exclusive prerogative over air navigation services.

However, other considerations would tend to classify Switzerland in the third and fourth category:

- As regards the third category, Comco has narrowly interpreted Article 3 of LCart in order to minimise its scope of application. Public enterprises are not excluded as such from the scope of application of the Act. As part of an investigation into illegal practices in the mobile telephony sector, the Appeals Commission for Competition Matters confirmed the competence of Comco which had been questioned by Swisscom and Orange who claimed that ComCom was the only competent body. An enquiry was launched into mobile telephony because indicators had suggested that termination fees were not the outcome of efficient competition, resulting in excessively high prices for calls from land lines to mobile telephones and from one mobile to another. Just as Comco was about to publish the results of its investigation, the three operators announced significant reductions in the price of their services in June 2005. Comco also ordered Swisscom to put an end to the discounts granted to its subsidiary Bluewin in the broadband

Internet wholesale services market, which had given it an advantage that amounted to abuse of a dominant position given that there had not yet been any unbundling of local loops. Lastly, Comco opened two investigations, which are currently proceeding, into Swisscom on 16 February 2004. The first relates to Swisscom's "Talk and Surf" offer, which includes a telephone connection, a broadband Internet connection, as well as additional services at reduced prices, while refusing to allow other telecommunications operators to retail telephone connections themselves. The second looked into telephone services for business customers, where Swisscom offers its own customers call termination services on its mobile telephony network at prices lower than those that have to be paid by operators whom this price squeeze therefore puts at a disadvantage.

- In the rail sector, Comco received a complaint in 1999 from Lokoop over access to certain lines which the CFF were only willing to offer as a comprehensive service. An investigation was opened on the grounds of a presumed possible abuse of a dominant position in February 2000. However, the CFF changed their behaviour during the investigation by offering Lokoop the services it had originally sought, thereby bringing the investigation to an end. Comco plays a general supervisory role in the area of the bilateral agreement on air transport. It collaborates with the European Commission on the implementation of decisions and measures on Swiss soil. It also ensures compliance with rules on State aid in this area in Switzerland.
- With regard to the fourth category, Comco acts as an advisor in the telecommunications field where there is collaboration between ComCom and Comco.⁹² Comco is competent to decide on behalf of ComCom whether a dominant position exists.⁹³ In 2004, Comco gave an opinion to DETEC that was in favour of the unbundling of the local loop as part of the revision of the LTC, an opinion that was followed. Comco also gave OFCOM an opinion in favour of assigning the remaining GSM 1800 frequencies, in accordance with Art. 23, Paragraph 4 of the LTC, but this opinion was not followed by ComCom.

Overall, formal co-ordination procedures at this stage only exist in the telecommunications field and appear to work satisfactorily. In other areas, Comco's interventions are in areas where sectoral regulators did not necessarily have specific jurisdiction. In contrast, the current dual jurisdiction, in which appeals against sectoral regulators are dealt with by another body than the one dealing with appeals against Comco (see above), does not promote a uniform approach to competition issues in the economy; however, this should be remedied by the reform of the legal system currently in progress. Generally, the experience of other OECD member countries, notably the European members, which have developed sectoral regulatory authorities could provide instructive lessons, and in particular could offer the interesting prospect of a cross-cutting and systematic consultation of sectoral regulators and competition authorities in the areas concerned.

Co-ordination between regulators and consumer protection bodies

Consumer protection was enshrined in Article 97 of the Swiss Constitution in 1981, and subsequently backed up by the Consumer Information Act of 5 October 1990. It includes the Federal Consumer Bureau, established in 1965 and attached to State Secretariat for Economic Affairs (SECO) - which serves as the Secretariat to the Federal Consumer Commission - and is a non-standing advisory body. The Federal Consumer Bureau has a small staff of 6 or 7 officials at its disposal. However, compared with other countries, consumer protection remains at a fairly embryonic stage in Switzerland.⁹⁴ In the sectors covered by this report, its interventions have primarily concerned telecommunications. The Federal Council took a number of decisions in February 2005 which required amendment of the Ordinance on addressing resources, aimed at allowing suppliers of telecommunications services to block access to special numbers in the event of their illegal use. The value added services supplied by SMS or MMS were entrusted to the management of telecommunications suppliers subject to their taking measures to fight abuses by offering subscribers the possibility of blocking access to chargeable SMS and MMS services. Consumer protection against PC diallers has been improved.

Other forms of co-ordination at the international level

Co-ordination at the international level is important. The regulatory authorities can benefit from forging contacts at the international level to learn from the experiences of their counterparts in other countries and avoid being circumvented by firms. There are a number of international networks composed of regulators in the postal, rail and telecommunications sectors in Europe. These networks, which are often supported by European bodies, have an important role to play in keeping regulatory authorities informed and in contributing to the formulation of a common doctrine. By and large, Swiss regulatory authorities have made a major effort to enter and secure representation in these networks, notwithstanding the specific situation of Switzerland with regard to the EU. PostReg, ComCom and the RACO participate in the networks corresponding to their specific area of competence. Similarly, and with regard to more technical aspects, FOCA is in close contact with the European authorities, notably with regard to the implementation of the “Single European Sky” programme.

Implications for public action

Cross-cutting analyses reveal a number of avenues that would allow the regulatory system to evolve as a whole. For example, regulation of the postal system differs in several significant respects from most of Switzerland’s neighbours, given the economies of scale that can be achieved with the equivalent authorities in the telecommunications sector. The situation with regard to telecommunications is a fairly original one in that it has given rise to a dual set of authorities. Admittedly, there are no major institutional dysfunctions in the current system, even though there are still many imperfections in the telecommunications market. Nonetheless, clearer identification of structures and competencies, by making operational services work more exclusively for decision-making bodies, would undoubtedly lend greater consistency to the system. In another area, the operational structure of the FOCA has recently undergone a radical overhaul, which means that it is still at a transitional stage. Even though a certain degree of institutional diversity can be seen in neighbouring countries, the issue of the further clarification of FOCA’s objectives could be raised. Furthermore, the current existence of the Price Supervisor means that a number of sectoral regulators have no role to play with regard to the price levels, given that responsibility for that task lies elsewhere. This institutional organisation is peculiar to Switzerland and was conceived at a time when the possibility of creating independent sectoral regulatory authorities had not been considered.

As a general rule, co-ordination between regulatory authorities and the authorities responsible for competition and consumer protection could increase the overall consistency of the system by gradually paving the way for the development of a doctrine through regular meetings and public hearings. A symmetrical consultation in the respective areas concerned, with the sounding of public opinion and unification of judicial appeals procedures, would undoubtedly lend greater efficiency and clarity to the implementation of economic law.

POWERS FOR HIGH-QUALITY REGULATION

Regulatory authorities in OECD member countries are often given greater powers by law, but also through other regulation. This allows authorities to issue opinions, set out rules, monitor and inspect, enforce regulations, grant licences and permits, set prices and settle disputes. The range of these powers varies substantially from one country to another: they can be exercised not only by regulatory authorities acting alone, but also by other agencies and/or government, with agencies solely acting in an advisory capacity. These powers devolved to regulatory authorities are there to create a high-quality regulatory system. An analytical grid can then serve as a basis on which to assess the transparency and reliability of regulation.

Powers of the regulatory authorities concerned

The powers of the regulatory authorities reflect the progress made in liberalising the sectors studied. The range of these powers partly depends on the nature of the legal instrument through which they are conferred. It is necessarily wider when authorities are created by means of legislation, as is the case with ComCom, FOCA, FOT and OFCOM. Conversely, PostReg is as yet only established under the Ordinance on the Post Office (OPO) of 26 November 2003, which generally restricts the scope of its own powers (see Box 10).

Switzerland, unlike other OECD member Countries, has two regulatory authorities in the telecommunications sector. OFCOM as an Office is part of the central administration of DETEC, whereas ComCom is independent. ComCom takes most regulatory or administrative decisions, while OFCOM provides the administrative support required and ensures that decisions are implemented, given that ComCom does not have any departments of its own. However, the division of tasks is unclear in some instances in that ComCom can, for example, delegate some of its powers as a concessionary authority to OFCOM. The sharing of functions results in a certain degree of institutional overlap (see Box 9).

The powers of FOT and FOCA are defined fairly broadly. Under the 1948 on Aviation Act (LA), FOCA has responsibility for the surveillance of civil aviation throughout the whole of Swiss territory, which includes air transport employees, aircraft and infrastructure. FOCA also manages traffic agreements negotiated between Switzerland and other States. FOT is referred to by name in the Railways Act and in the agreement on land transport, and has been given powers over inland public transport. Its missions involve the regulation of rail activities, the transfer to rail of freight traffic flows through the Alps and increasing the share of public passenger and freight transport by co-ordinating the construction of the infrastructure required. However, there is currently another body, the RACO, which is also active in this area as an appeals body for disputes over train path allocation.

These powers as a whole serve an economic purpose, except in the case of FOT and FOCA where there is a very clear safety dimension to the powers exercised; they will be examined in detail by major category, starting with safety and then moving onto economic considerations.

The power to grant licences from a safety standpoint

FOCA and FOT have the following powers with regard to safety:

- FOCA issues operating licences to firms transporting passengers or goods by aircraft for commercial purposes.⁹⁵ However, the DETEC grants route concessions for the regular operation of air lines.⁹⁶ FOCA draws up training standards for pilots and certifies them as well as the new aeroplanes released onto the market.
- FOT issues safety certificates to railway companies that use the network of another operator.

Inspection, surveillance and sanctions in terms of safety

The licences granted with regard to safety have a corollary in terms of powers to inspect and impose sanctions. If FOT notes abusive or illegal use by railway companies, it can withdraw their safety certificate. In the air transport sector, FOCA has the task of ensuring that airport operators comply with the relevant legislation and the conditions of the concessions granted by the DETEC. FOCA has the power to control companies operating aircrafts above a certain weight that are subject to European safety standards. As part of this activity, it analyses technical and operational reports on the basis of which it can impose remedial measures if required. In terms of quality control, FOCA has evolved by moving from on from inspection to auditing. It checks the preparedness of the fleet and performs aircraft and ramp checks. However, the NLR study reported a particularly lenient inspection regime for Swiss aircraft compared with that for foreign aircraft (see Annex 7) and as a general rule less regular inspection schedules compared with those in force in neighbouring countries. FOCA can impose sanctions for non-compliance with the regulations in force; so far it appears to have made little use of other means of preventing sanctions such as warnings or the performance of compliance examinations. Furthermore, FOCA is responsible for supervising Skyguide, for which the Confederation is responsible, even though this mission has not been fully assumed in the past.

Licensing power from an economic standpoint

The delegation of the power to grant a licence to operate in a market to an independent regulator is a crucial component of liberalisation. This aim of this process is to reassure operators and to promote the conditions for investment and growth. This applies to several sectors in Switzerland:

- In the telecommunications field, there are three types of licence required to supply a service: licences for telecommunications services, licences for operators using the frequency spectrum, licences for the universal service which is an obligation and not a right. ComCom is the concessionary authority; however, it can delegate some of its powers to OFCOM in the telecommunications and broadcasting sector (see Box 9);
- With regard to postal services, a concessionary regime was introduced in 2004 for firms offering non-reserved postal services. PostReg does not have the power to grant licences directly, since this remains within the competence of DETEC. Postreg checks and processes the requests it receives on behalf of DETEC. Solely firms that are capable of supplying high-quality services and that meet the usual working conditions in the sector are likely to be granted a concession. The Post Office does not have to apply for a concession because it is the supplier of the universal service under the law.

Inspection and sanctions arising from licences seen from an economic standpoint

In the telecommunications sector, by law concession holders are required to provide the authority granting the concession all the information needed to comply with the Act. OFCOM is empowered to conduct inspections. As part of a monitoring procedure, OFCOM can require the parties to provide information. However, it does not have the power to impound documents, nor to issue writs, except in criminal cases. In order to check that the information provided is truthful, OFCOM has to carry out international benchmarking to check whether the data supplied are plausible. In the event of an offence, OFCOM can ask ComCom to take appropriate measures -- or may decide to take them itself. These include:

- A summons to the concession holder to remedy a shortcoming that has been observed or to take appropriate measures to prevent a repeat occurrence;
- An obligation that the concession holder hand over any illegal financial gains to the Confederation;
- Adding of charges to the concession;
- Suspension, withdrawal or imposition of restrictions on the concession.

ComCom can condemn any firm that breaks the concession agreement in order to gain financial advantage or that contravenes a decision with the legal force of a ruling to pay a fine which can amount to three times the financial gain achieved through breaking the rules. If the profit cannot be properly assessed, the fine may amount to 10% of the annual turnover of the firm in Switzerland. Only a minority of procedures have resulted in the punishment of guilty firms. Most of the time, disputes are settled by changing the nature of licences and the confiscation of illegal profits. Between 1998 and 2003, most of the sanctions have been imposed on Swisscom. The dissuasiveness of the size of fines can however be questioned

In the postal sector, PostReg ensures that concession requirements are met. Firms holding concessions are thereby obliged to provide a report. If certain indicators show that concession conditions are being flouted, PostReg can open an investigation, issue a warning or request the withdrawal of the concession, which solely DETEC is empowered to do.

Access to networks and infrastructure

The power to provide network access is one of the main functions of an independent regulator who seeks to ensure that third parties can enjoy use of an infrastructure representing a collective good under optimum conditions from an economic standpoint. The situation varies significantly in Switzerland from one sector to another:

- In the rail sector, railway companies can use the network of another operator provided that they have a licence. Access permits for freight movements are issued by FOT, which requires that licensees comply with the working conditions applicable within the branch. There is no difference between international transit and regional lines; international companies have unrestricted access to infrastructure under the bilateral agreement with the EU. FOT specifies the criteria for path allocation and the determination of minimum path prices. However, it has no say in path allocation which is conducted in a shared one-stop shop created in 2001 and managed by the two main railway undertakings, CFF and BLS. Since 2004, RACO has, in agreement with the one-stop shop, the task to monitor CFF and BLS paths to ensure transparent slot allocation and non-discriminatory access to the network.

- In the case of passenger transport, operators must have a concession which is granted at the discretion of the Confederation and the cantons, and not by the FOT. This concession is awarded on a competitive basis and on the basis of a service mandate, despite the fact that to date only a limited number of concessions have been granted.⁹⁷
- In the telecommunications sector, there is no *ex ante* power that can ensure interconnection. When a supplier obliged to provide an interconnection, and the party requesting that interconnection, fail to reach an agreement within a period of three months, ComCom, at the request of one of the parties, lays down the conditions of the interconnection in accordance with normal market principles or those of the sector in question. OFCOM then acts as the authority preparing the case, *i.e.* it organises negotiations and consults Comco over questions of dominant position. The authority granting the concession can also ask operators holding licences to provide leased lines in the area covered by their licence. In addition, there are no powers to impose access to the local loop.
- In the postal sector, third parties have no access to the final distribution of post for the time being, unlike the situation in a number of European countries. This would allow certain firms to ask the Post Office to distribute pre-sorted mail.
- In the air transport sector, the allocation and hourly distribution of slots (arrival or departure times assigned to an aircraft movement on a specific date) is one of the basic pillars of market access for air carriers and for the exercise of competition. In Switzerland, the Slot Co-ordination Switzerland association has been responsible for allocating slots since April 2004 (Annex 9). This task used to be the province of Swiss International Airlines and Unique Airport Zurich. Moreover, FOCA ensures that slots are allocated correctly.

Price regulation

The power to regulate prices, in the event of the historical operator holding a monopoly or significant market power, is essential for a regulatory authority. In view of the prior existence of the Price Supervisor, Swiss regulatory authorities do not have very extensive powers with regard to price setting or supervision:

- The FOT has limited powers with regard to price-setting. Marginal costs and other taxes are set in the Ordinance on access to the rail network. Additional prices are set by the railway companies which are obliged solely to ensure that prices are the same, irrespective of the user of the infrastructure, even though they are subject to action by the Price Supervisor (see above). However, the Confederation defines the principles applicable to the calculation of charges and FOT develops criteria for the calculation of marginal costs for passenger and goods transport services. The Price Supervisor ensures that prices are properly matched to services. FOT specifies the level of charges for the transport of passengers covered by the concession.
- In the case of air transport prices, FOCA applies rule 2409/92 which states that a member State can intervene to prevent the charging of too high or too low a tariff. The European Commission must be notified of such intervention in order to give an opinion. For other flights, the regime applicable to tariffs and therefore the nature of FOCA's intervention – formal approval, tacit approval, formal disapproval – depends upon the contents of the agreement that is reached. FOCA does not control prices in the area of airport management and the provision of stop-over services, which falls within the Price Supervisor's field of intervention. In contrast, it calculates the navigation charges set by Skyguide, which are also subject to the scrutiny of the Price Supervisor.

- In the postal sector, PostReg has no price-setting powers of its own, even though it wields considerable influence. The Post Office submits the prices of reserved services (monopoly) to DETEC for approval, but PostReg drafts the department's decisions. The Price Supervisor issues an opinion before prices are approved.
- In the telecommunications sector, OFCOM and ComCom have very little room for manoeuvre in that price ceilings can only be set for services relating to the universal service, where the Federal Council is competent (see Box 9). OFCOM and ComCom have no powers over the price of retail services. Operators occupying a dominant market position do not need to secure the prior agreement of the regulator over the price they set for interconnection. Provision is nonetheless made for an *ex post* review by the Price Supervisor (see above) with intervention over the tariffs for telephone addresses, retail prices of interconnections and the price of a subscription to a land line. In contrast, ComCom can set the wholesale prices at the request of a supplier as part of an interconnection procedure.

Universal service surveillance powers

Surveillance of the universal service is one of the major tasks of PostReg in the postal sector. This surveillance consists in monitoring the quality of and access to this service, while endeavouring to ensure independent verification of compliance with accounting principles (Article 41, paragraphs 1 and 2). The principles applicable to the presentation of the costs of the universal service and the postal network are set out in the Act and the Ordinance, which ban cross-subsidies. PostReg has defined these principles more clearly by imposing a number of technical criteria on the Post Office in December 2004. PostReg receives financial information and details of the quality of the Post Office's services which it then has analysed by an external auditing body. PostReg has the power to ask for inspection methods to be amended or for additional methods to be adopted before the Post Office awards the mandate. PostReg (2005) itself acknowledges that it has no powers of sanction that would allow it to enforce compliance with these obligations.⁹⁸ It could only "note with regret that the Swiss Post Office had decided not to respect certain essential aspects of the requirements of the legislation with regard to the presentation of the costs of the universal service". In the theoretical case that this would be necessary, charges can be imposed on concession-holders to finance the universal service, although it is DETEC and not PostReg which will decide on the size of these charges.

Furthermore, PostReg provides the Secretariat for the Post Office Commission, which is the reconciliation board for the Post Office and local authorities in the event of a disagreement following a decision by the Post Office to close one of its outlets. In this context, PostReg assesses access to the universal service in the regions concerns and issues a recommendation.

In the telecommunications sector, the universal service guarantees each individual access to a minimum range of services. ComCom has the power to award universal service concessions. ComCom also has powers with regard to geographical coverage and the public service obligation. In contrast, the Federal Council is responsible for setting price ceilings. The concept of universal service has been revised by the Federal Council in the light of the degree to which a service is available to the population and the risk of social exclusion should it no longer be possible to obtain that service at a reasonable price. Since 1 January 2003, it includes a digital connection and the price ceilings for domestic calls have been lowered. The scope of the universal service obligation has in contrast been reduced with regard to telephone call boxes.

Settlement of disputes

A number of regulators have been given the power to settle disputes, which is almost a power of jurisdiction. This allows them to learn about disputes and then settle them. In many cases, the regulators are the parties which are in the best position to come up with an agreement between the parties and can also act swiftly

- In the rail sector, FOT, as the body responsible for monitoring the development of competition in the rail market, can deal with complaints. However, it is primarily RACO which acts as the dispute-settlement body by taking decisions over agreements between parties and infrastructure access. It rules on complaints regarding infrastructure access or the calculation of infrastructure usage charges. For the time being, RACO cannot take action on its own accord, whereas in the future it may have the power to instigate proceedings itself if it suspects discriminatory behaviour. In practice, irreconcilable path allocation requests are dealt with pragmatically on a “first come, first served” basis. In the event of bottlenecks, the law gives priority to passenger transport movements at regular interval, as well as to connecting trains. RACO does not have the power to sanction in case of non-compliance with its decisions.
- Although PostReg does not have the power to settle disputes, the Ordinance mentions the possibility of denouncing any failure by the Swiss Post Office to supply legally regulated services to PostReg.
- ComCom has the power to resolve interconnection disputes. In contrast, it does not have the power to settle disputes between the suppliers of telecommunications services and their customers. The planned amendment of the LTC provides for the creation of a reconciliation body to settle disputes arising between the suppliers of telecommunications services or value-added services and their customers. This amendment of the LTC should in fact endow ComCom with powers to settle disputes over local loop access.

Development of regulations

The power to draw up general rules is usually awarded to an authority with political responsibility such as a Ministry. By acquiring greater independence, regulators acquire the power to implement general rules through individual regulatory decisions. It is not necessarily their role to draw up general rules that they will then have the responsibility of implementing as both judge and jury. However, individual decisions provide scope for drawing up regulations that have the nature of jurisprudence. In addition, regulators often possess a high degree of technical expertise, which means that their role in these processes is invaluable. For pragmatic and practical reasons, independent regulatory authorities often find themselves in a position where they can publish technical or subordinate regulations. In contrast, Ministries remain responsible for political and strategic decisions.

In Switzerland at this stage, all the regulators studied have varying degrees of power with regard to the drafting of regulations, even though they do not have the power to issue them, which remains in the hands of the DETEC or the Federal Council, as part of their corresponding competencies. FOCA is therefore closely involved in both the preparation and implementation of decisions relating to air transport policy; it also has a role to play in infrastructure planning, with the development of the air transport infrastructure sectoral plan, the radio-navigation plan, the planning of radio frequencies and the management of Swiss air space. In the regulatory sphere, the powers of OFCOM and ComCom are deeply intertwined. ComCom has regulatory responsibility for technical aspects through approval of the national frequency allocation plan and the national numbering plan. OFCOM's departments are also involved in the development of new regulations. PostReg provides DETEC with information and proposals regarding the adjustment and implementation of legislation. FOT also has legal departments which are involved in drawing up regulations for the rail sector.

Box 7. Breakdown of competencies between OFCOM and COMCOM

This table provides a simplified overview of the breakdown of competencies in the communications sector between the Federal Council, DETEC, ComCom and OFCOM. The sharing of tasks is sometimes complex.

Competence	Article LTC of 1997	Federal Council	DETEC	COMCOM	OFCOM
Telecommunications					
Must state which services are not subject to concession	4				AC ¹
Authority granting concession	5			RC ² and AC	D ³ ComCom
Lays down interconnection principles (IC)	11	RC			
First instance decision in terms of IC ⁴	11			AC	
Must offer leased services				AC	
Universal Service (US)					
Award of US ⁵ concessions	14, 5			AC	
Sets price ceilings for US	17	RC			
Geographical coverage	18			AC	AC
Must provide US				AC	
Broadcasting					
Award of concessions	22, 27			AC	
Award of certain concessions	Art.1 Ord. ComCom			AC	D ComCom
Frequency spectrum management	25				AC
National frequency allocation plan	25			RC	AC
Addressing resources					
Resource management	28				AC
Numbering plan	28			RC	AC
Number portability	28			RC	
Charges					
Collection of concession charges	38			AC	AC
Exemption from broadcasting concession fees	39	RC			
Setting of concession charges	41	RC			
Setting of fees	41		RC		D DETEC

Source: ComCom, adjusted by the OECD Secretariat.

¹AC: administrative competence, ²RC: regulatory competence, ³D: delegation of tasks, ⁴IC: interconnection, ⁵US: universal service

Box 8. Powers of PostReg and breakdown of competencies and tasks in the postal sector

PostReg has a three-fold regulatory task (Art.40 paragraph 2, OPO): the existence of a universal service of guaranteed quality throughout the territory at a fair price, guaranteed fair and efficient competition – notably through the introduction of a concession-based regime – and, lastly, observation and surveillance of the postal market. In a number of cases, PostReg's function is to advise DETEC, which has ultimate decision-making power.

	Art Lpo, Opo	FC	DETEC	PostReg
Service universel				
Contents and scope	3, 4 Lpo, 41 Opo	LC	←IP	←IP
Methods	4 Opo		AC	←IP
Decides on prices for reserved services (monopoly)	14, 15 Lpo 41 Opo		AC	←IP
Sets quality objectives for the Post Office	14 Opo	LC	←IP	
Guarantees independent control of the quality of services, access, customer satisfaction.	15, 41 Opo			AC
Guarantees independent verification of compliance US financing principals	41,19 Opo			AC ←IP
Introduction de redevances à percevoir auprès des concessionnaires privés en vue de couvrir un éventuel découvert	6 Lpo 29 Opo		AC	←IP
Guarantees independent verification of the ban on cross-subsidies	18, 41 Opo			←AC
Processes complaints	16, 41 Opo			AC
Market				
Specifies free services	9 Lpo	LC	←IP	←IP
Must provide information on changes in the market	41 Opo			←AC
Assesses the gradual opening-up of the market	41 Opo			←AC
Monitors the guarantee of the US, the market and the conditions for creating efficient competition	40 Opo			←AC
Manages the independent commission on post offices	7 Opo			AC
Concession regime				
Registers firms required to issue announcements	21 Opo			AC
Draws up the concession procedure and implements the concession regime	26, 41 Opo			AC, IP
Awards, renews, annuls, withdraws, amends, transfers and cancels the concession	5 Lpo, 26 Opo		AC	←IP
Prosecutes offences against the monopoly and failures to comply with the provisions governing the concession regime	19 Lpo, 41 Opo		AC	←IP
Other sovereign tasks				
Amendment and implementation of legislation	41 Opo	LC	←IP ←LC	←IP ←IP
Representation in international organisations	41 Opo		AC	←IP AC
Defence of the owner's interests with regard to the Post Office				
Amendment and implementation of the Lop	Lop	LC	←IP	
Assignment of strategic objectives	6 Lop	AC	←IP	
Checking compliance with strategic objectives (approval of the report on the achievement of objectives, use of profits)	Lop	AC	←IP	

Source: PostReg, adjusted by the OECD Secretariat. LC: legislative competence, AC: administrative competence, IP: competence with regard to information and proposals, ← : task of informing and submitting proposals to the higher authority. FC: Federal Council, DETEC: Federal Department of the Environment, Transport, Energy and Communications. Lop: Act on the organisation of the Post Office of 30 April 1997, Lpo: Act on the Post Office of 30 April 1997, Opo: Ordinance on the Post Office of 26 November 2003

The powers of Swiss regulators from an overall perspective

An overall view in an international framework shows that the powers of regulators are as a general rule more limited, and divided between a greater number of authorities, than in other comparable countries. In the postal sector, a detailed analysis of powers shows the limited scope of PostReg's own powers. This is also attributable to the fact that PostReg's mandate was laid down by Ordinance and not by an Act. As a result, PostReg does not have the power to set prices, unlike German, Danish, British and Italian regulators (Annex 13). Unlike its French, German, Finnish, British, Italian or Dutch counterparts, PostReg cannot impose sanctions.

In the telecommunications sector, Switzerland, in a relatively progressive move, has given the regulator licensing powers. Market access remains under the control of the Ministries, as for example in Italy, Japan and Luxembourg for land-line telephony, and in Canada and Spain for mobile telephony (DSTI/ICCP/TISP(2005)6). With regard to price-setting, the Swiss regulator's rooms for manoeuvre is very limited compared with other OECD countries which, for the most part, have transferred responsibility for price regulation to the telecommunications regulator. Unlike the situation in Switzerland, operators with a dominant position in the interconnection market usually need to secure the regulator's approval of the prices they set. The Price Cap method is used by the German, Danish, Belgian, French and Italian regulators to regulate the market. In OECD member countries, regulators also have competence for access to the local loop, unlike in Switzerland where ComCom had been denied such powers by the Federal Tribunal. Lastly, ComCom's competence to settle disputes also has parallels in many other countries, even though in Belgium this task is fulfilled by the competition authority and in the United Kingdom by a special adjudicator appointed to settle disputes relating to local loop access.

Switzerland shares competencies for the rail sector between FOT which, as it is not independent, could not fully play the role of economic regulator of the market, and the RACO which had hitherto enjoyed minor residual powers, having dealt with two cases. In France, the *Mission de contrôle des activités ferroviaires* deals with complaints over path allocation and over the scale of charges. In Germany, a new department within the EBA⁹⁹ monitors non-discriminatory access to the network. Ministries have licensing powers in a number of European countries such as Italy, France, Austria and Spain. In the United Kingdom and Germany, on the other hand, the regulator is responsible for licensing and safety certification. FOT is both an economic regulator and a body with oversight over safety standards. In contrast, Austria, Denmark, the United Kingdom, Sweden and Portugal have set up independent safety regulators, reflecting the growing importance attached to safety monitoring.

In the air transport sector, the organisation of regulatory activities in Switzerland partly resembles the French model¹⁰⁰ in the sense that FOCA's role is relatively wide-ranging. The Swiss regulator is structurally less well integrated, however, in that its remit does not include air navigation, which is delegated to Skyguide. Conversely, the mode of regulation practised in the United Kingdom or Australia is different in that the regulators in those countries are closely integrated into the economy. In the United Kingdom the Civil Aviation Authority is an independent authority with responsibility for safety, notably by verifying compliance with regulations, and also plays an important economic role, including the regulation of certain prices (see Annex 6). It monitors the charges levied by airports and the prices set by National air traffic services (NATS¹⁰¹), by setting Price Caps. It uses financial incentives to encourage airports to invest in infrastructure. In Australia, where the airports have been privatised, the regulator has the important task of regulating airports and air navigation. It ensures that third parties have access to infrastructure, controls the prices invoiced for air transport services, guarantees service quality and monitors the financial management of airports.

Maximising the quality of regulatory power

Independent regulators or autonomous agencies with regulatory powers are key instruments in the reform of the regulatory system. The devolution of powers must be accompanied by the same regulatory quality requirements as the ones for the regulation process in general. These requirements are expressed in the 1995 OECD recommendations that have been incorporated into the OECD guidelines for regulatory quality and performance in 2005. In the case of independent regulators, whose purely prescriptive performance remains limited in volume terms, the following criteria taken from the 1995 OECD reference check-list for regulatory decisions may prove useful:

- Does regulation offer cost-effective benefits?
- Is the distribution of effects within society as a whole transparent?
- Is regulation clear, consistent, comprehensible and accessible?
- Do all the interested parties have an opportunity to make their views known?
- How is compliance with regulations enforced?

The 2005 principles explicitly stipulate the need to assess regulatory instruments and institutions on the basis of performance. This aspect will be analysed in the last part of this report. Lastly, these principles are explicitly aimed at ensuring that regulatory institutions are transparent and non-discriminatory.

Access to information

Access to information is a key component of the decision-making process which assesses not only costs and benefits but also the distribution of effects. The power to pursue investigations and enquiries is essential, and this power was given to OFCOM and ComCom under recent legislative instruments. Moreover, FOT has set up a special inspection service. On the other hand, the competencies of FOCA in this area are less clear-cut. It would also seem that PostReg has had problems in gaining access to the information it requires from the Swiss Post Office, and had to call on the services of an independent firm of experts. The rules of procedure applicable to enquiries can sometimes make inspections difficult, as a number of competition enquiries have illustrated. Adjustment to these procedures is considered in the section of this report dealing with competition policy, and could undoubtedly provide useful lessons for the regulatory authorities.

Transparency

Transparency allows the parties concerned to understand decisions. It helps to strengthen the independence of the regulator. In Switzerland, the Constitution, the Federal Act on administrative procedure and the General Act on the Organisation of Government and the Administration contain specific provisions regarding transparency. The rules and general context by and large encourage transparency in Switzerland. However, since some authorities are not entirely independent, the risk of opacity with regard to certain essential issues relating to dialogue with the main market actors cannot be excluded. Nonetheless, in practice the regulators concerned in the telecommunications and postal services sectors have clearly made great efforts. All of ComCom's decisions have been published, and the same is true of PostReg. In contrast, FOT and FOCA do not publish their own decisions because these services are not independent. Overall, all the authorities have public websites providing detailed information about their activities.

Clarity of decisions

The clarity of the decision-making process is a basic requirement in terms of the quality of regulations, particularly in the case of technical subjects. Transparency alone is not necessarily sufficient: the decisions of the economic regulatory authority are not necessarily easy to understand in themselves. It is essential to explain decisions in order to secure public support for regulatory actions, which involves, for example, organising public hearings, disseminating reports and setting up properly designed websites. Compared with other OECD member countries, the situation in Switzerland is on the whole satisfactory. Above all, the ability to provide information in three languages on a relatively broad basis, thereby showing respect for cultural diversity, is an important factor in clarifying the decision-making process throughout the country, even though a number of highly technical documents are only available in some of these languages.

Consistency and predictability of decisions

Consistency and predictability are another key component of the quality of regulations. The legal system plays a crucial role in this respect. In a legal system based on Roman-German law (as in Switzerland), the regulatory authorities must try to comply as far as possible with the general rules set out in the legislation and regulations. The predictability of decisions is another major factor in the quality of regulation, in the interest of those that are subject to it. Firms as consumers, as well as Ministries, must be able to predict the options that a given agency will take. In systems based on civil law, regulators must comply as closely as possible to the general rules set out in the legislation and regulations. In this case, strict compliance with these general rules underpins the security, predictability and legitimacy of its authority. In jurisdictions based on *Common Law*, the approach is that of case law, that is to say based on decisions taken earlier. Explaining how decisions have been taken, quoting the legislation, regulations and specific legal criteria, referring to earlier decisions and explaining the grounds on which new decisions are based improve the predictability of the decisions made by the regulator.

Switzerland has a civil law system in which the laws precisely define the context in which decisions are taken. For example, the reasons for which the decisions published by ComCom are usually described in detail, thereby enhancing their consistency. In the case of other regulators, the relative stability of the institutional means that there is a lower risk of direct Ministerial intervention in key decisions than in other OECD member countries. Difficulties tend to arise in relation to the unpredictability of certain decisions in the current jurisdictional context. For example, procedures and appeals in the Federal system have resulted in long lead-times in the telecommunications sector and a high degree of uncertainty for operators. In addition, the current disparities in the appeals system does not promote consistent jurisprudence, in that appeals regarding competition issues are dealt with by a different body to that laid down for sectoral authorities. The current reform of the legal system should partly help to remedy this situation and should also put an end to the possibility of appealing to the Federal Tribunal on cases relating to telecommunications.

Compliance with procedures and consultation with the parties involved

A guarantee that the procedure will be properly respected and that the parties involved will be consulted is essential to building confidence, particularly among new operators. Respect for the procedural rights of actors is also an essential part of the confidence-building process. The tradition of dialogue and consensus is one of Switzerland's strong points¹⁰² and generally allows a high level of consultation of the parties concerned.

Implications for public action

The analysis of the powers of the regulatory authorities studied reveals the partially incomplete nature of the liberalisation process in Switzerland. In the case of rail transport, it reflects the adjustments needed within the bilateral agreement. Furthermore, in the postal services or telecommunications sector, the situation of Swiss regulators has led to their receiving fewer powers than their counterparts in a number of European countries. In addition, the complexity of the institutional system, given the number of authorities involved in certain cases, does not help to strengthen the regulatory system as a whole. Nonetheless, on the whole, in the exercise of their powers the regulatory authorities show great concern to respect the principles of high-quality regulation. Transparency and information are the strong points of the Swiss system. They nonetheless suffer from the fact that regulators still lack sufficient powers to obtain certain types of information and from the uncertainty created by the current organisation of appeals and jurisdictional aspects.

ASSESSING THE PERFORMANCE OF REGULATORY AUTHORITIES

Assessing performance on the basis of achievements – a complicated task

The aim of performance assessment is to improve the achievements of regulators on an objective basis. This entails determining whether the actions of regulators have had the desired effects and whether these outcomes are satisfactory. The assessment helps to enhance the quality of the regulatory system by suggesting any adjustments that may be necessary. The performance assessment of regulators may be carried out *a priori* or *a posteriori*. *A priori* analysis consists in a Regulation Impact Analysis (RIA) in the case of prescriptive work.¹⁰³ *A posteriori* analysis entails re-assessing the objectives assigned to the regulatory institution to see whether they have been achieved and whether they remain topical. When regulatory authorities are established by means of an Act or an Ordinance, the preliminary impact analysis and the detailed message setting out the reasons for creating the authority must clarify the objectives and missions of the institution. This applies to recently established institutions such as ComCom, PostReg and OFCOM, but can also apply retroactively to older institutions such as FOCA or FOT.

A posteriori assessment is used to evaluate the economic and social impact of regulators with regard to the powers and resources assigned to them. This is essential for institutions financed by public funds and which have the obligation to be accountable. This process calls for a balanced approach in that too rigorous an evaluation could be used to weaken the independence of regulators. Conversely, a lack of evaluation might raise doubts over their legitimacy and restrict their influence.

The various pillars of evaluation

The assessment considers the following:

- An evaluation of the use of public funds (use in accordance with regulations). The financial evaluation is entrusted with the auditing of public funds.
- An examination of the decision-making and institutional framework of the regulator from a legal viewpoint. This examination, carried out by the appeals bodies and as a last resort by the Federal Tribunal also helps to ensure the accountability of regulators.
- A broader evaluation of performance in economic terms, which can include:
 - Self-assessment, carried out by the authority itself;
 - An evaluation by a public body, supervisory Ministry or auditing office, which where appropriate will report in general terms to Parliament on the effectiveness of its policies;
 - An independent evaluation performed within an academic framework to provide input to public debate.

This report focuses on financial and economic performance. The assessment of performance calls for a clear definition of the objectives of regulators, usually in Acts or legal texts. In theory, regulators should be given clear objectives and if possible only one, for example the opening-up of a sector to competition or ensuring safety. In practice, sectoral regulators often find themselves being assigned several objectives, which is the case with the Swiss regulators concerned. While the situation is relatively clear in the postal services and telecommunications sector, the objectives of FOT and FOCA are set out in general terms and cover a number of functions. However, at the present time neither FOT nor FOCA are independent regulators, even though they carry out certain tasks that could be entrusted to such regulators. Choosing between different objectives that are equally important from a policy standpoint, such as safety and economic development, requires a political decision, which must be debated and taken at the appropriate level. These objectives cannot be pursued within the technical framework of an independent regulatory agency. When it is not possible to avoid having a large number of objectives, it is often helpful to rank them in the original legal texts in order to improve the operating conditions of the regulatory authority.

Current auditing and assessment practices in Switzerland

Evaluation is a widespread activity in Switzerland and is fuelled by official evaluations, self-assessments and independent appraisals. The 2000 amendment of the Constitution added Article 170 which provides for evaluation of the effectiveness of measures taken by the Confederation. This led to amendment of the Act on Parliament. Several institutions assigned with auditing functions are responsible for assessing the performance of the public sector and have recently seen the scope of these duties extended:

- The Swiss Federal Audit Office (SFAO) is very strongly independent and assists Parliament and the Federal Council in monitoring the federal administration. Moreover, the SFAO has revamped its organisation and missions as part of the process of rapid reform of the public sector in Switzerland in the early 2000s. Its current role embraces not only monitoring the proper use of public funds, but also special controls, including profitability audits, that closely resemble performance assessments.
- The Parliamentary Control of the Administration (PCA), established in 1991, which is where the evaluation competencies of the Federal Assembly are centralised under the Act on Parliament and on the basis of the mandates individually assigned by parliamentary commissions. The evaluations made by the PCA in recent years have not tackled the problems in the sectors studied head-on. However, the PCA did draft a report on modern management of the justice in 2001 for the Council of States management commission which was aimed at improving the overall efficiency of the legal system, including the Appeals Commission for the DETEC and the Appeals Commission for Competition Matters.

The evaluation reports by the Swiss Federal Audit Office on self-assessment by offices provides an indication of the progress that has been made, particularly in the field of transport, and also the persistent shortcomings in the air transport sector (Box 11). This report mentions that FOCA *“has only recently become aware that its mission primarily consisted in controlling, monitoring and regulating, whereas it had previously seen itself more as a provider of support to the Swiss aviation industry by seeking to maintain a climate of trust.”* Furthermore, this report notes that FOCA has not conducted any studies into the liberalisation of air transport, notably with regard to the impacts in terms of the quality of services, the scope for making savings, or safety levels. Other reports are prepared directly by parliamentary commissions, notably the management commission of the Council of States, which in 1999 addressed in particular the changes in the general management of the Post Office¹⁰⁴ or the management of the Swissair crisis.¹⁰⁵ This reports concluded in particular that the Confederation had to conduct analyses in order to forestall crises and that safety should be subject to constant appraisal.

Box 9. Recent evaluations by the Swiss Federal Audit Office

Self-assessment practices of offices – FOCA and FOT

In 2005, the Swiss Federal Audit Office (SFAO) conducted a meta-analysis of the evaluation practices of ten Offices within the federal administration. This followed a preliminary study by Widmer published in 1999 which had analysed ten or so organisations, including the SECO. The analysis by SFAO focused on ten Offices, including FOCA and FOT which had not been covered by the preliminary study, and provided a basis on which to evaluate the quality of the general information published on the Internet, the ten previous annual reports, the two last messages on Acts in progress, and other management reports. This study illustrated the shortcomings of FOCA, whose statistical department was extremely basic and whose control department was still in the planning stage, whereas FOT had an integrated control department and an assessment unit incorporated into its establishment. The SFAO report shows that the lack of basic data restricted the scope for conducting analytical work at FOCA, and that the office did not have reliable information on the impacts of its actions. However, FOCA commissioned outside studies to provide guidance for its analytical work. The report recommended increased co-ordination with other offices, particularly with regard to transport infrastructure. FOT appears to have developed regular impact models, notably to meet its mandate to report to Parliament on transfers from road to rail. The report also analysed the service contracts signed with CFF on behalf of the FOT. Lastly, the work on transport requires to fill a number of gaps in order to have access to all the necessary indicators with all the partners concerned, which include the Federal Office of Statistics, of Territorial development, the Swiss railways CFF, the Post Office and LITRA, the transport information service. With regard to FOCA, the SFAO report mentions the existence of plans to create an institute for technical safety through the amalgamation of various departments within DETEC. The report also emphasises the high degree of dependency on international standards and concludes with the need for the office to proceed with further analytical work on impact models and to develop access to basic data.

Annual reports

The annual reports focus on the Confederation's main items of expenditure. FOT was addressed in connection with planned alpine crossing projects (2004, 2003, 2002, 2001), and the creation in 2002 of the finance and auditing inspectorate, attached to the management of FOT, was duly noted. The service contracts between CFF and the Confederation over the period 1999-2002, which had led to the payment of subsidies, were analysed in 2002 and 2003, and a request made for adjustments to the indicators and measurable thresholds in the following contract, together with an analysis of service agreements within CFF between passenger and goods traffic and infrastructure management. A need for analytical accounting at FOCA was identified in 2003, as well as a need to overhaul the Ordinance on charges to ensure that latter were sufficient to cover costs. The loan to Swissair (2002) was also analysed.

Self-assessment by regulatory authorities

Self-assessment is fairly widespread in Switzerland, even though quality levels vary (see Box 9), with all the authorities studied in this report regularly publishing annual reports. Even PostReg, which was only set up recently and with limited resources, published its first annual report in July 2005. In contrast, the capacity of the agencies concerned to perform self-assessment varies. FOT has created a special independent internal auditing function, which has particular responsibility for the supervision of major rail projects. All the authorities concerned have developed economic and statistical units to some extent. In addition, offices can perform, or commission, a number of expert appraisals. OFCOM is undoubtedly the agency offering the richest assessments. The office publishes analyses of market supply and demand, as well as prices and regulation, studies its commissions from an academic (see below). In the air transport sector, FOCA has also commissioned a report from the International Civil Aviation Organisation (ICAO) on safety oversight.

Assessments conducted in a European framework

In Switzerland's case, the European context has a major impact on performance assessment. Where a bilateral agreement exists with the EU, as in the air and rail transport sectors, Switzerland is automatically included in European assessments, one example being the air transport data compiled by DG TREN 2005. In the rail sector, Switzerland has been included in several evaluations of market liberalisation that have been conducted in a European context.¹⁰⁶ In other sectors, Swiss regulatory authorities try to carry out such evaluations themselves, since they provide crucial input to their actions. This is the case for OFCOM. Although there is no bilateral agreement with the EU for telecommunications, in 2003 the Office commissioned from the Institute WIK-Consult an 8th implementation report on the European Union extended to Switzerland, and also requested a 9th report in 2004 based on the methods and procedures used by the European Commission for EU member States. Lastly, in the postal services sector, PostReg commissioned WIK to extend the comparative studies conducted until then for European countries to include Switzerland. Lastly, there is a scorecard for the relative efficiency of regulatory authorities for electronic communications within the European Union, which evaluates the powers given to NRAs and the way such powers are used. Despite its summary nature, this type of approach reveals a close link between the quality of regulation and the matching levels of investment, although Switzerland has not been included in these evaluations for the time being. The quality of the regulator is measured from the standpoint of high-quality regulation, taking account of transparency, independence, the speed of procedures, effectiveness of sanction, dispute settlement procedures, and provision of access.

Independent evaluation by academics

Independent evaluation by academics can also provide invaluable input to the evaluation process for regulatory authorities, although it is often commissioned either within a public context or by firms operating in the sector. A distinction must be drawn, however, between a "sectoral" assessment and an assessment of regulatory agencies as such. Regulatory agencies are defined by law and by secondary standards and their actions must comply with their initial legal framework. Many of the shortcomings revealed by these studies are not the direct outcome of the performance of the regulatory authorities, but rather a reflection of the limits placed on their scope of action and their independence by the regulatory framework.

The study on regulation commissioned by OFCOM to Professor Finger¹⁰⁷ offers a good example. The remit was to analyse regulatory performance on the basis of the case studies realized for eight industrialised countries, including Switzerland. The study sets out to examine the efficiency of National Regulatory Authorities (NRAs) in regulating sectors and considered parameters that could be viewed as "outcomes" of the regulator's actions, such as the number of operators, the market share of the historical operator, prices, choices, quality, consumer information. It shows that the regulator has little impact on final prices, service availability, and consumer information. It also shows high levels of tension with the historical operator and also with the Swiss legal system, which has regularly prevented the authorities in the sector from making progress with interconnection in the present context. The existence of conflicts weakens the effectiveness of the regulator's actions. The study also concludes that the dilution of responsibilities between the two regulators in Switzerland and also with price supervision, not to mention appeals; this provides a fairly unclear framework for the exercise of responsibilities by the regulator. The study also shows that weak action by the regulator to protect consumers may be linked to the lack of clearly defined public service objectives, which do not include consumer protection.

Implications for public action

On the whole, evaluation is an extremely widespread activity in Switzerland, even though shortcomings in certain areas still need to be remedied. The disparate nature of the regulatory system from one sector to another, combined with the incremental nature of reforms, underlines the need for an overall approach to assess the adjustments that need to be made to the public service. This also raises the question of the actual impact of such evaluations and the time that is needed to implement the conclusions drawn from these when amendments to the legislation are called for.

CONCLUSIONS AND RECOMMENDATIONS

On the whole, Switzerland tackles the need to modernise the management of its infrastructure sectors. The citizen's expectations in these areas are high and play a crucial role for long-term economic growth. OECD analyses show that a clear link exists between long-term economic performance and the quality of the regulatory framework. Enhancing the prospects for growth and improving the economic opportunities offered to citizens are major objectives that Switzerland must meet if it is to maintain its position in the long term of a prosperous country in comparison to other OECD members. A good insertion at European level is equally important for the communications and transport sectors. Good governance practices have increasingly been recognized as contributing to economic competitiveness, with a dynamic offer of public services and an institutional framework apt to change. A governance orientated approach allows an analysis of the regulatory framework which takes into account the links between institutional structures and economic environment. The aim is to determine how the governance system and the regulatory institutions can help achieve social and economic goals while responding to political priorities. Modernisation the infrastructure sectors is part of a complex public debate in Switzerland where public service plays a major role.

The general context of public service and its future

The reforms in the institutional architecture of the regulatory system that have been considered in this report must be seen against the general context of the public service, which is one of the key aspects of the public debate in Switzerland. The Federal Council has presented a general report entitled "Public service in the field of infrastructure" to Parliament,¹⁰⁸ which makes a detailed examination of the main challenges posed by market liberalisation for postal and telecommunications services as well as transport. The report stresses the positive trends in performance in the field of infrastructure, it also emphasises the need for new reforms. Increased efficiency must allow prices to be kept at an affordable level by controlling financial charges. While underlining the progress made in improving the quality of the services offered, the report recognises that liberalisation sometimes lags behind that in the European Union, even though the reforms have been made necessary by growing economic interdependence. However, this report does not explicitly single out consumer protection as one of the objectives.

This report has led to new guidelines for public service in order to obtain general principles. These acknowledge the need to distinguish the function of regulator from the other functions assured by the state. This aims at modernizing the institutional architecture in order to obtain a clear framework in which the desired goals can be achieved. The report emphasises the progress that is currently being achieved through the amendment of the Telecommunications Act, the reform of the railways 2, or even the forthcoming stages in the reform of the postal sector, provided that the conditions under which universal services are financed are maintained. The aim is to provide a future offer of basic services that is reliable, affordable, covers the entire territory of Switzerland and is of high quality, together with productivity gains that will allow prices to be maintained at an affordable level. Each sector must finance its basic services, except for public transport. The report recognises the determining nature of developments within Europe. It notes that compatibility must be ensured in areas where it would be advisable, while reserving the right to deviate from EU standards where there are sufficiently strong grounds to do so. This report recognises the need to strengthen the regulator's functions by giving further powers to regulatory authorities in the future, notably in the area of telecommunications and the Post Office.

In June 2005, the Council of States decided to ask the Federal Council to draft an Article in the Constitution addressing the issue of public service and its future. However, consideration of examples from other countries shows that the providing for public service constraints in the Constitution carries the risk of reducing the degree of flexibility required and slowing future adjustment, whereas technical, economic and political change can lead to major upheaval.

**Box 10. The "Service Public" in the field of infrastructures in Switzerland,
Competition, universal service and services of general interest**

Public service is based on the same rationale as public intervention, namely: market imperfection, natural monopoly, public goods, externality, redistribution criterion. Its approach depends upon the institutional and legal context of the various countries concerned. In this regard, Switzerland, like France, is in the throes of a major debate. The Federal Council defines public service according to a number of different criteria:

- High-quality basic service defined at a political level accessible to all categories of the population;
- Offered uniformly throughout the country, with quality control;
- Prices that are affordable to everybody;
- Based on the same principles;
- Uninterrupted service.

From the standpoint of competition policy, public service may be perceived as a constraint relating to non-commercial service obligations.¹⁰⁹ The scope of the definition of universal service has a significant impact on competition. Despite the role played by the public service, there is no general approach in Switzerland to public service obligations in different sectors, these being defined according to the rationale that applies within each individual sector. Generically, universal service can be financed by cross-subsidies, public transfers, or charges payable by market actors. Cross-subsidies are the traditional model for financing public services, as in the case, for example, of telecommunications and the Post Office in Switzerland. However, they are generally not transparent and can lead to price distortions. It is important to ensure that sufficient information be given on the ways in which the universal service is financed. In a context where information asymmetries remain, only 2nd best solutions can be found in order to limit the informational rents. Since 1996, a service mandate system has been put in place in the rail sector in Switzerland. The possibility of competition being introduced in the event of a request for reimbursement of the cost of providing a universal service tends to moderate costs.

Switzerland, like other countries, faces the need to modernise its infrastructure from the standpoint of competition. This has led to a re-examination of the role of competition, which is sometimes perceived as the reverse of public service, in order to better reconcile fairness with efficiency.¹¹⁰ On the contrary, competition can be seen as a means of furthering the public interest in that it can help to improve the efficiency and quality of the service.

General evaluation

The Swiss regulatory system has until now provided positive support for a number of changes in the economy. On the whole the Swiss population and Swiss firms enjoy a high level of high-quality services, as reflected in the use of postal services, development of the information society and the highly advanced level of rail infrastructure. Market attributes have been introduced into certain areas such as telecommunications and also rail freight transport, where Switzerland has gained a lead on a number of European countries. The specific practice of consensus, the high degree of attachment to public services, as well as to values of social cohesion and territorial fairness circumscribe an institutional and cultural framework that allows infrastructure sectors to play a key role in the economic and social development of the country. Swiss operating modes and regulatory practices generally reflect a high level of technical expertise, consultation and transparency.

Yet, changes cannot be accomplished without major challenges and efforts. Significant efforts have had to be made to modernise the framework for competition policy,¹¹¹ which have been analysed in another chapter. On the whole, regulatory structures relating to infrastructure have not been widely developed and still have limited independence and insufficient means, resources and powers to drive some of the changes that are required. The air transport sector has undergone some difficult changes. Trends in the postal sector are causing concern among the population, notably in certain peripheral regions, while the regulator would seem to need greater powers to control the separation of postal accounts. The development of rail infrastructure represents a major financial effort for the Confederation. In the telecommunications sector, citizens have for many years paid a relatively high price for mobile phone calls, whereas the delays in unbundling the local loop, and the lack of matching powers for the regulator, has denied them access until now to supplies of Internet and related services that are both as attractive and diverse as those available in neighbouring countries.

Switzerland is also facing the challenges that beset a relatively small country forced to contend with major changes taking place in the countries within its immediate environment within the European Union. The strong momentum given at the European level to network activities have had a major impact on Switzerland's partners and neighbours which have themselves had to evolve within these areas too.

This in turn raises the issue of the pace of reform in Switzerland and the possibility of setting up strong and independent regulatory institutions in the administrative and social context. The pace of reform is governed by the time needed to secure a political majority and popular support. The implementation of major projects that affect the life of all citizens and that relate to services which are vital to daily life will necessarily take time. This time is needed to persuade, unite and implement. The outcome is that large-scale reforms can only occur with a certain delay.

The question of how well the Swiss system can adjust to the processes of economic change under way is then raised. While in some cases the existence of a bilateral agreement allows the institutional system to evolve in line with the European environment, in others, where compatibility with the European system has not been seen as absolutely necessary, the changes are slower.

All of this is reflected in the way in which the regulatory authorities are evolving. The processes of change have begun, but are far from complete. The relative degree of complexity found in certain sectors shows that the accretion of incremental changes can have its limits. In the air transport sector, past changes have illustrated the risks linked to the slow adjustment of the institutional system to a new environment in which the market has been liberalised. The reforms to date have only been partial and introduced piecemeal.

This system should also be viewed from an "over-arching" governmental perspective which would allow a coherent approach to be adopted to issues relating to the institutional cross-butting architecture spanning the sectors in question. This overall perspective can quite rightly encompass the design of public service, thereby reassuring the population and the actors involved that a liberalised market is not a market without rules, but one in which transparent and fair competition must be imposed on all actors in order to provide the benefit of the best services at least cost. The 2004 report by the Federal Council: "The public service in the area of infrastructure" clearly illustrates the challenges, and the strategic framework that can be put in place.

The modernisation of the institutional framework of regulatory authorities can be viewed as a positive contribution to make to this debate. It implies for instance the clarification of the regulator's function in the administrative system. This process is dynamic and permanent since institutional changes are delicate to install and need full support from the different actors in order to be efficient. Such an evolution would undoubtedly allow the reforms in progress to yield greater efficiency in some instances by improving the

conditions under which services are provided to citizens and by accelerating the pace of economic change. The diversity of experiences offered by OECD member countries also provides a wide array of potential solutions, which will undoubtedly allow adoption of the political and administrative choices that are best suited to the Swiss context.

Policy recommendations

The following recommendations are organised along the same analytical lines as this report and draw on the lessons to be learned from international experience. Implementing them will require consideration of national practices and the possibilities offered by the legal system, since regulatory authorities are bound by a given context. Some of the changes proposed will take several years to implement. Furthermore, other changes will require new institutional practices, introduced with the full agreement of all the parties concerned.

1. Improving the consistency of the regulatory framework in the sectors concerned through clearer mandates and objectives.

A high-quality regulation approach calls for a coherent framework of governance to be put in place for regulatory authorities. This framework is designed to achieve public policy objectives and to develop market activities in regulated sectors while taking account of their specific characteristics. Regulatory authorities cannot function properly without a clear reference framework and without precisely defined objectives. The decisions taken by such authorities must be based on clear principles that can be understood by all parties. A precise definition of the responsibilities of the various actors is needed to implement an efficient governance framework. Experience shows that institutions pursuing a large number of partially contradictory objectives are often less able to fulfil their various missions satisfactorily.

The authorities addressed by the present study reflect contrasting situations. While the mandates of ComCom or PostReg are precisely set out within the framework of recent legislation, the mandates and objectives of longstanding authorities discharging their responsibilities within a very broad framework are defined more generically. This is the case for FOT and FOCA in particular. However, in the field of transport, the Constitution sets precise goals for rail policy, thereby defining the practical role and responsibilities of the FOT. In the air transport sector, the framework is less clear. Under current arrangements, safety functions as well as economic promotion are entrusted to FOCA. Recent reforms have modernised the regulatory framework with the aim of improving safety. The reorganisation of FOCA made it possible to clarify the internal procedures used to meet safety and economic development objectives. However, it might be desirable to explore the possibility of making an even greater distinction between the various services in charge of safety, perhaps starting on a geographical basis. This might make it possible to adopt a more autonomous approach to safety, before considering the possibility, where appropriate, of performing that function more independently.

FOCA likewise continues to perform functions aimed at developing the sector at the same time as regulatory functions aimed at providing the best level of service at the lowest cost. The Federal Audit Office noted this ambiguity in its assessment. FOCA only has a general regulatory function and does not have the power to regulate regarding airport charges and taxes, this function being jointly exercised with the Price Supervisor. Perhaps it might be possible in the future to see whether it would be feasible to clearly identify the nature of the economic regulation functions that FOCA is, or might be, called upon to perform, and then to consolidate them. Air control functions and missions could likewise be clarified. A start could also be made on analysing the way in which the Confederation's interest are represented in Skyguide's Board of Directors in order to clarify the nature of the public service duties assumed by this body, while at the same time providing it with adequate financial resources.

Possibilities for clarification and potential restructuring might also emerge in the rail sector. The regulatory framework is currently evolving. Some economic regulation functions are performed by the RACO, as well as by a path management body administered by the operators. As part of the Railways Reform Programme II, there are plans to set up an independent path management service. The Swiss authorities might well consider the option of setting up a separate regulatory authority consolidating all economic regulation functions in the rail sector. This would allow clarification of some of the functions of the FOT, which is also responsible for infrastructure development and safety management, as are comparable Ministries in other neighbouring countries.

A complex institutional architecture is also apparent in the telecommunications sector. ComCom can call upon the services of the Communications Office, while the latter can also receive instructions from the Department. There would still seem to be room for further progress to be made in clarifying the separation of roles and competences between ComCom and OFCOM.

2. Strengthening regulatory structures in Switzerland in the sectors concerned through increased independence and resources.

The growing internationalisation of activities in a number of infrastructure sectors has highlighted the need to provide uniform and predictable market conditions for operators and to guarantee the general neutrality of the regulatory framework. In return, this calls for consideration to be given to regulatory structures, and to the independence of the latter, that are needed to support the changes in progress. This is particularly the case with regard to telecommunications, air transport, rail path management, and postal services. The experience of a number of OECD member countries that have adjusted their regulatory environment in recent years, notably in Europe, can serve as examples in the work of institutional analysis, even if individual structures and statutory status may differ. The design of the institutional framework must take account of the structures in place in each country and the regulatory context.

In Switzerland, the current regulatory framework comprises authorities with differing status, and also with very unequal resources. The bodies which currently enjoy genuine independence take the form of a decentralised administration, with ComCom and the RACO having the status of extra-parliamentary commissions. However, there is still room for further reform, primarily because of the relatively short term of mandates, the conditions under which members serve, and the fact that bodies do not have their own Secretariat.

The Swiss authorities might consider the option of redefining a general statutory framework for regulatory authorities in cases where independence proves necessary, perhaps through legislation. This could be derived from the framework for extra-parliamentary commissions, after some adjustments. The term of commissioners' mandates could be lengthened. Experience shows that staggered appointments of commissioners tend to lend greater stability and consistency over time to decisions made by regulatory authorities. Restricting the scope for renewing mandates also tends to enhance the independence of bodies, even though this must be balanced against the need for experience and technical expertise. The regulator's function often requires a major personal commitment on the part of commissioners, which in turn calls for attractive remuneration. The appointment of regulators at a high political level can also be a means of reflecting the status of their functions as well as their independence. In Switzerland, this could be achieved by making appointments at the level of the Federal Council. The independence of authorities means that no instructions are to be given to those authorities by the Department to which they might be administratively attached. The search for independence also calls for specific provisions to ensure the integrity of the regulator's functions with regard to private interests. Some countries have decided to place restrictions on commissioners subsequently working in the regulated sector concerned. In other cases, commissioners must declare any prior activities relating to the sector.

The regulatory authorities, even though in many cases small, need a high level of technical expertise on which to anchor their authority and underline their independence. The Swiss authorities might therefore explore the possibility of systematically allowing regulatory authorities to have their own secretariats, whose size would be proportionate to the responsibilities entrusted to them. This is not the case for ComCom at the moment. Funding is another attribute that can influence independence. One means of enhancing independence is to introduce charges whose means of calculation would be stipulated in the legislation, or to use budgetary funding in accordance with special procedures designed to make regulators' resources secure.

The postal sector is also an area where a need for independent regulation is starting to be felt, given the outlook for the opening-up of this market. The current institutional framework is aimed at making a start on clarifying the functions of the State as regulator compared with the State as stakeholder and owner of the Post Office. However, the current authority PostReg, established under an Ordinance, does not have the status of an independent regulatory authority, an approach similar to that adopted in a number of neighbouring countries. This particular point was stressed in the 2005 WIK report. It also has a role in the design and drawing-out of policies which usually is not the task of an independent regulator. The Swiss authorities might consider allowing this authority to evolve towards greater independence as part of the reforms currently in progress. Lastly, from the standpoint of an independent authority, size is a practical constraint which might suggest giving consideration to organising competences on a multi-sectoral basis. It is for this reason that other European countries, such as Germany (see the new organisation in Germany with gas and electricity sectors) or France, have decided to consolidate regulatory functions in the communications sector.

3. Increasing the capacity of authorities to be accountable and strengthening communication with the public.

An approach based on high-quality regulation means that consideration must be given to introducing procedures to guarantee accountability. Such an approach is also aimed at making it easier for both firms and the public to understand regulatory decisions and objectives. This is all the more important in that regulatory authorities do not operate in an institutional vacuum and therefore need to find channels for dialogue with not only political decision-makers but also the general public and citizens. This allows them to ensure that their message has been properly understood and that their actions are consistent with the objectives they have been set.

The transparency and consensus that characterise the Swiss institutional framework offer major guarantees in terms of accountability. The practice of assessment, the quality of the information available, the will to consult and seek a consensus, allows all the various market actors to be involved in the process.

However, perhaps a more incisive communications policy might help the population gain a better understanding of the strategic challenges involved. The regulatory authorities might give thought to participating more actively in the public debate. At this stage, the situation varies from one sector to another and according to the relative degree of autonomy of bodies. Stepping up the institutional dialogue can also involve communicating with Parliament more actively through specialised commissions and publication of annual reports. Direct dialogue with the public, NGOs and opinion leaders might also be developed. This would lead to a better understanding of certain messages at a time when public service issues are attracting a lot of interest, as well as arousing a certain degree of apprehension, among the population.

Lastly, performance assessment is also an important instrument through which regulatory authorities can account for their actions. This has already been developed in Switzerland through self-assessment, the work of the Federal Audit Office and the role of European assessments. However, it might be advisable to base self-assessment on a more sophisticated statistical system in which systematic use is made of international assessments, notably at the European level.

4. *Increasing the powers of regulatory agencies, notably in terms of tariffs, inspections, investigations and sanctions.*

The regulatory authorities need to have sufficient powers to accomplish their missions. If not, they run the risk of being denied the leverage they need to implement decisions.

To date, the delegation of powers to regulatory authorities in Switzerland has remained fairly limited in terms of both access to information, through on-site inspections, and the power to impose sanctions or the power to regulate tariffs when necessary. In terms of tariffs, it might be beneficial to explore the possibility of increasing the *ex ante* powers of intervention of sectoral regulatory authorities after consultation with the Price Supervisor and Comco, where appropriate, in cases relating to monopolies or strong market power.

As a general rule, the effectiveness of the actions of regulatory authorities could be enhanced by giving them the power to conduct investigations and inspections on-site, as in the case of the powers currently granted to Comco. Likewise, increasing the punitive powers of regulatory authorities would make it easier for them to take action in the event of failure by regulated firms to meet their obligation. These powers should include in particular the power to fine in order to modify the behaviour of regulated firms. Moreover, the institutional process should be adjusted to ensure that when the regulatory authorities prepare and impose sanctions for unfair behaviour or failure to comply with regulations, the regulated parties are granted the full benefit of the guarantee that their procedural rights will be respected.

This could be achieved, for example, in the telecommunications or postal services sectors. While admittedly the independence of ComCom is recognised, and its existence accepted by market actors, it does not at present have *ex ante* powers relating to interconnection and local loop unbundling. These are part of the ongoing reforms discussed in Parliament in 2005. ComCom does not have any powers to investigate regulated firms either. In terms of tariffs, it does not have its own *ex ante* powers. Extending ComCom's powers to intervene might allow it to act more effectively. This could in addition include extended powers with particular regard to sanctions. Similarly, PostReg does not currently have any powers to sanction the Post Office to ensure that the latter meets its obligations with regard to the presentation of accounts and respect for the universal service.

5. *Strengthening competition and consumer protection in the telecommunications, air transport, postal services and rail sectors through systematic agreements and co-operation with the competition authority and consumer protection services.*

High-quality regulation requires achieving a coherent competitive environment throughout the economy. This calls for full collaboration and good co-ordination between sectoral regulatory authorities and the services in charge of competition.

Existing provisions in Switzerland have made it possible to guarantee satisfactory collaboration in the telecommunications sector. It would be desirable for such provisions to be extended, where appropriate, to cover the relevant aspects in other sectors, by ensuring cross-consultation between Comco and the sectoral authorities with regard to matching cases. Furthermore, the resources attributed to consumer protection in the sectors concerned remain inadequate. The role of the regulatory authorities in this area should be developed and should be matched by similar development of the role of consumer protection services.

6. *Improving the legal framework for appeals regarding regulation through a unified framework.*

A high-quality regulatory system includes procedures for appealing against individual decisions which will not cause delays in the decision-making process within firms. The existence of effective and consistent appeals procedures is a prerequisite for creating an environment favourable to investment and the development of economic activities.

The current system of appeals commissions in Switzerland reflects an uneven approach across sectors and agencies, and also includes a separate appeals procedure for decisions relating to competition policy. In some cases, as in the telecommunications sector for instance, this legal framework has hampered some of the efforts made by regulatory authorities. This system will be fully overhauled as part of the ongoing reform of the legal system. One might wonder to what extent this system will in the future offer a unified legal framework for appeals against the decisions of regulatory authorities, including those taken by Comco. It would be advisable to consider merging the jurisdiction for appeals against decisions taken by sectoral regulatory authorities with that for appeals against decisions by Comco. It would also be advisable to ensure that the legal services can benefit in their procedures from the provision of adequate technical and economic expertise with regard to high-tech sectors.

NOTES

1. Majone in OECD 2005.
2. Bureau 1997.
3. The data published by *le Temps* on 9 May 2005 would tend to place Swisscom among the five least highly rated Swiss securities according to the selected corporate governance criteria, which take into account managers' pay systems, the structure and independence of the board of directors, respect for the shareholders' rights, the independence of the audit process and managers' share ownership.
4. For a general account of the U.S. experience: Bailey 2002.
5. Cf. Caves et al. 1984, Bailey 1985, Reed 1999, quoted in Gonenc Nicoletti 2000.
6. Gagnepain, Marin (2004) for an analysis of the changing context of competition in Europe.
7. Barrett (2000) for an analysis of the development of low-cost airlines.
8. Of which 1.17 billion francs have actually been paid thus far.
9. DG TREN 2005 data, p.10, fig. 2.
10. Cf DG TREN 2005, Chart 34, p. 233.
11. *Le Temps*, 10 May 2005. 79.4% in April 77.6% in May as compared with 72.5% in 2004.
12. Easy Jet statt Swiss, *Neue Zürcher Zeitung* 19 April 2005.
13. *Le temps* 8 June 2005.
14. La, RS 748
15. Federal Council (2004).
16. *Le Temps* 24 June 2005, article by Rita Führer based on a study by the consultancy bureau Infrac.
17. The Future of Rail, White Paper HMSO (2004).
18. See Blochliker Seckler 2003 for a presentation of European developments.
19. Swissinfo August 2001.
20. Swissinfo 26 May 2004.
21. At 1995 prices.
22. The Federal Act aimed at transferring freight traffic through the Alps to rail. 8 October 1999.
23. Federal Railway Act 20 March 1998.

24. With a transfert of 5.56 billion Swiss francs suisses to the government for pensions and emergency loans, a conversion of 8 billion Swiss francs into capital, and the allocation of 4 billion at a variable rate.
25. See OECD (2005), "Roundtable on Structural Reform in the Rail Industry", OECD Web site on Competition Law and Policy, Best Practice Roundtables on Competition Policy, www.oecd.org/competition.
26. Various articles, *Le Temps* 23, 24 June, 1, 2 July 2005.
27. See the chapter on electricity for a discussion of issues in this sector. This self-provision accounts for 7% of electricity in Switzerland.
28. See the *Message on the Reform of Railways submitted on 23 February 2003*.
29. The Passenger Transport Act, the Federal Act on the Safety Service of Transport Companies, the Federal Act on the Transport of Goods by Rail and Inland Waterway, the Federal Act on Road Transport Companies, the Federal Railway Act and a Federal Amendment Act.
30. Article by P. Veya, *Le Temps*, 1 July. 2005.
31. Data from the mid-1990s cited in OECD 1999.
32. Cf survey conducted by Marks (1996) cited in OECD 1999, and the European survey conducted by NERA 2004.
33. Even if in the United States, the US Mail also enjoys a monopoly on access to mail boxes at the place of residence of households.
34. Montero 2003.
35. Montero 2003.
36. *Le Temps*, May June 2005.
37. See the chapter: "La Suède, laboratoire de la régulation postale", in Toledano 2004. Also see Bladh 2001.
38. NERA 2004, WIK 2004. Switzerland is not covered in this report, because of the lack of a framework agreement. However, Postreg has initiated steps to extend these evaluations to Switzerland.
39. Report by the Commission to the Council and Parliament on the application of postal directive (SEC(2005)388)
40. www.upu.int
41. TMC Asser Instituut 2004.
42. Alverno Levy (2003).
43. 647 items in 2003 as compared with 692 in 1999. Switzerland was close to 600 in 1993 (DAFFE/CLP(99)22).
44. It published the amount of 837 million francs, but in its report the regulator estimated that the result was 776 million francs.
45. Annual report of Postreg 2005.
46. Maschke W. 2002, Schwarz Schilling C. 2002 .
47. IPC data (International Post Corporation 2005)
48. Data of Swiss Post. Mr. Bruhin. 12 May 2005.

49. Postreg 2005.
50. The opening up was completed in 2004.
51. Rey 2002.
52. 2005 Annual Report of Postreg, p. 12.
53. Postreg 2005, p. 30.
54. Excluding the following: items transported by the senders themselves or by persons mandated by them when this transport is not carried out on a professional basis; items for which transport by the Post Office is prohibited in accordance with its general conditions.
55. See Thierstein and Abegg 2000.
56. Example of Schaffhouse.
57. Creighton Hendricks 1999. WIK Study United Kingdom 2004.
58. Also see Information Technology Outlook 2002, 2004, in particular for Internet.
59. *Le Temps* 4 May 2005.
60. OFCOM 2004.
61. *Le Temps* 4 May 2005.
62. Klemperer (2002).
63. For modeling of the implicit prices that had been estimated, see Meeks, 2001, Research note, Oxford University, cited by Klemperer 2002.
64. See Tele2 (2005).
65. See Trinkl 2003.
66. It is a former subsidiary of Swisscom sold to a foreign company in order to reduce Swisscom's dominant position (DAF./COMP/WP2/WD(2005)9).
67. M. Finger, in *Le Temps*, 1 June.
68. Article 92 of the Constitution from 18 April 1999 foresees that postal services and telecommunications are the responsibility of the Confederation. The Confederation shall ensure that a sufficient universal service be delivered in all regions of the country for postal and telecommunications services. Tariffs are set according to uniform principles.
69. Cf S. Borner 1991 cited in Stefan Buhler 1998.
70. Article 1, paragraph 2. LTC. 1997.
71. *Le Temps* 20 June 2005.
72. See Ehrsam P., Kummer 2003, for Swisscom, Krimer 2003 for Sunrise, Trinkl 2003 for Orange, Schöpfer 2003 for users, and Schmid 2003 for Schmid Telecom.
73. *Communications Outlook* data, 2005.

74. Cited in OECD 2004.
75. *Le Temps* 1 May 2005, article by A. Seydtaghia.
76. RS 172.010, last amended in 1997.
77. RS 172.010.1.
78. Commissions' Ordinance, RS 172.31, 3 June 1996.
79. RS 172.217.1.
80. Articles 13 and 40 of the Postal Ordinance of 26 November 2003.
81. Which means appealing to the higher administrative level.
82. See chapter 2 for further details.
83. At the time of drafting this report in June 2005.
84. See the budgetary review of Switzerland (GOV/PGC/SBO(2005)5) for a discussion of budgetary aspects in Switzerland.
85. Le reste du budget de l'OFCOM, pour la partie médias, est couvert par les recettes budgétaires de la Confédération.
86. See Article by J. Veya, *Le Temps*, 1 July 2005.
87. Law on price monitoring, 20 December 1985, RS 942.20.
88. See background report on Competition Policy in Switzerland, available on the OECD Web site www.oecd.org/regreform.
89. See background report on Competition Policy in Switzerland, available on the OECD Web site www.oecd.org/regreform.
90. For further details see the conclusions of the OECD Round Table on this subject (OECD, 1999), to which Switzerland did not submit a contribution.
91. For further details see the conclusions of the OECD Round Table on this subject (OECD, 1999), to which Switzerland did not submit a contribution.
92. Bovet Gugler, 2001.
93. Art. 11 paragraph 3 LTC.
94. See background report on Competition Policy in Switzerland, available on the OECD Web site www.oecd.org/regreform.
95. Art. 27 LA for Swiss firms, Art. 29 LA for foreign firms.
96. Art. 28 LA for Swiss firms, Art. 30 for foreign firms.
97. Steer Davies Gleave, 2003.

98. Postreg 2005, footnote on page 32, Page 15.
99. Eisenbahn-Bundesamt.
100. See the regulatory reform in France in the civil aviation sector. See too the Court of Auditors (2002) for an evaluation of air navigation in France.
101. National air traffic services.
102. See Chapter 2, “Government Capacity to Assure High Quality Regulations in Switzerland”, available on the OECD Web site www.oecd.org/regreform, country reports.
103. See Chapter 2, “Government Capacity to Assure High Quality Regulations in Switzerland”, available on the OECD Web site www.oecd.org/regreform, country reports.
104. Report by the management commission of the Council of States on the measures taken by DETEC during developments at the head of the general management of the Post Office, 21 June 1999.
105. Report by the management commission of the Council of States on the role of the Federal Council and the federal administration with regard to the Swissair crisis, 19 September 2002. 02.063.
106. IBM 2004, NEA 2005, NERA 2004.
107. Finger Voets 2003.
108. Federal Council 2004.
109. See background report on Competition Policy in Switzerland, available on the OECD Web site www.oecd.org/regreform.
110. Lorenzi Jacobzone, 1995.
111. See background report on Competition Policy in Switzerland, available on the OECD Web site www.oecd.org/regreform.

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ANNEX 1. General description of regulatory authorities

Authority / Sector	Dates	Laws	Regulated sectors	Institutional framework and status
Communications Federal Office of Communications (OFCOM)	1992	Law on radio and television (LRTV) Law on telecommunications (LTC). (RS 784)	LRTV: distribution of radio and television programmes LTC: telecommunications services and telecommunications facility, management of frequency spectrum	OFCOM is a department which is part of the administration and depends of the DE TEC. Management with delegated budget envelopes
Federal Commission (COMCOM)	1997	ComCom has been set up by the Law on telecommunications (LTC) 1997.	Telecommunications services	Extra-parliamentary Commission. Administratively tied to the DE TEC it is separate and independent.
Postal Postal regulatory authority (POSTREG)	1997-2003	Post Office Act (30 April 1997). Post Office Ordinance of 26 November 2003 plans the creation of a regulatory authority. This ordinance also establishes an independent control of quality service for the universal service and the absence of cross-subsidies.	Regulation of the postal universal service.	Unit without a proper budget and administratively tied to the Secretariat General of the DE TEC (OPO, art. 40 al. 1)
Aviation Federal Office for Civil Aviation (FOCA)	1948	Federal law on aviation (La, RS 748.0, art. 3).	Supervision of the Swiss civil aviation: aeronautical staff, engines, infrastructures. Traffic agreements negotiated between Switzerland and other countries.	Federal "office", department which is part of the administration and depends of the DE TEC
Rail Federal Office for Transport (FOT)	1935	FOT's functions are mentioned in several legal texts : - Agreement on Inland Transport (RS 0.740.72) - Railway Law (RS 742.101) - Law on Passenger transport (RS 744.10) - Law on Federal Railways (RS 742.31) - Law on traffic transfer (RS 740.1), ordinance on railways (RS 742.141.1) - Ordinance on railway network access (RS 742.122) - Ordinance on concessions for passenger transport (RS 744.11) - Federal law on public transport (RS 742.40)	FOT is competent for all inland transports, railways included.	Federal "office", department which is part of the administration and depends of the DE TEC
Railways Commission (RACO)	January 2000	- Commission was set up following to the bilateral agreements between Switzerland and the European Union which planned the creation of an arbitration commission - Federal Law on Transports (LCdF), 20 December 1957 - Ordinance regarding organisation and procedures before the Federal Appeals Commissions (1993) - Ordinance on access to railway network 1998 (OARF)	Judicial activity: RACO is an appeal body dealing with complaints concerning network access. It has further tasks since 2004. These involve supervising CFF and BLS to make sure that slots are allocated transparently and there is indiscriminate access to the network.	Commission administratively and hierarchically tied to the FOT.

Source: OECD Secretariat based on a specific questionnaire for supervisory bodies.

ANNEX 2. Other authorities with a regulatory function

Authority	Dates	Laws	Regulated sectors	Institutional framework and status
Financial sector Swiss Federal Banking Commission (SFBC)	1934, 1972, 1995, 1994	SFBC is competent according to : - Federal Law on Banks and Savings Banks (1934) - Ordinance on Banks and Savings Banks (1972) - Federal Law on Stock Exchange, LBVM (1995) - Federal Law on Investment funds, LFP (1994)	La CFB is tasked with the supervision of Banks, Investment Funds and Stock markets.	Administrative authority, administratively attached to the Federal Department of finance outside the central administration. The Federal Council cannot give the SFBC instructions. The SFBC has the task to supervise the industry segment under its authority on its own initiative.
Competition Policy Competition Commission (COMCO)	1995, 2004	Comco is competent according to : - Federal Law on Cartels, LCart (1995, modified in 2004) - Ordinance on merger control (1996) - Law on the internal market, LMI (1995) - Law on technical trade barriers (1996) Law on price supervision, LSP (1985)	General competence with LCart and LMI. The Commission is tasked with the enforcement of LCart and takes decisions on competition and merger cases.	Independent Commission administratively tied to the Federal department of economic affairs (FDE).
Intervention on pricing 'Price supervisor'	1985		Law on price supervision (LSPr) applies to prices for goods and services set by cartels and by firms with a strong market power, whether of public or private law in the sense of 1995 law on cartels. Prices of goods, services and credits are included. Exception: salaries and credit activities of the Swiss National Bank.	The 'Price supervisor' depends of the Federal department of economic affairs. It has a small division and staff.

Source: OECD Secretariat based on the questionnaire for the regulatory reform review.

ANNEX 3. Regulatory authorities: assignment and tasks

Authority	Missions, objectives	Tasks
POSTREG	<ul style="list-style-type: none"> - supervise provision of universal service (US) - market supervision - allow healthy competition in the context of gradual market opening 	<ul style="list-style-type: none"> - ensure independent quality control of the provided US, and access to it - ensure independent control of the principle of independent cost accounting and prohibition of cross-subsidising - deals with denunciations linked to universal service <p>On behalf of the DETEC:</p> <ul style="list-style-type: none"> - sets up a concession scheme - prepares tariff related decisions on behalf of the department - assesses progress of market liberalisation - tasked with preparing laws (political advice) - international affairs (political advice)
FOT	<ul style="list-style-type: none"> - regulates railway activities - facilitates transfer of freight traffic across the Alps from road to rail - tasked with obtaining a rising share of public transportation as well as rising freight railway traffic by co-ordinating the creation of necessary infrastructures 	<ul style="list-style-type: none"> - prepares decisions for concessions concerning passenger transport and the construction and running of railway infrastructures - authorises access to network and grants security certificates to railway companies. Determines criteria for path allocation and minimum path prices.
FOCA	<ul style="list-style-type: none"> - responsible for legislation and supervision of the Swiss civil aviation, the law however only mentions the 'supervision of aviation on the Confederation's whole territory' 	<ul style="list-style-type: none"> - supervision of aeronautical staff, of flight equipment and infrastructure - activities related to tariff agreements negotiated between Switzerland and other countries
COMCOM	<ul style="list-style-type: none"> - ensure that individuals and business circles have access to varied, competitive telecommunication services at national and international level - ensure that a reliable US is granted at a reasonable price to all the population and in the whole country - ensure that telecommunication traffic is not disrupted and respects personal and immaterial rights - allow efficient competition in terms of telecommunication services (Art 1 LTC) 	<p>Competent where conflicts of interests may occur due to the fact that the Confederation remains major owner of the incumbent:</p> <ul style="list-style-type: none"> - allot telecommunications concession under public invitation to tender (GSM, UMTS, WLL, US concessions) - set interconnection conditions if no agreement is found between the different sides - approve national frequency allocation plan and the numbering plan - take the necessary administrative measures related to the providers having obtained a concession - take financial sanctions against those who transgressed the concession or a decision legally enforced
OFCOM	<ul style="list-style-type: none"> - ensure that individuals and business circles have access to varied, competitive telecommunication services at national and international level - ensure that a reliable US is granted at a reasonable price to all the population and in the whole country - ensure that telecommunication traffic is not disrupted and respects personal and immaterial rights - allow efficient competition in terms of telecommunication services (Art 1 LTC) 	<p>OFCOM is responsible for other executive tasks with minor economic or political implications. OFCOM also has regulatory functions in electromagnetic communication.</p>

Source: OECD Secretariat based on questionnaires related to supervisory authorities.

ANNEX 4. Powers of regulatory authorities

Authority	Accreditation	Pricing	Inspection	Sanction
POSTREG	Concession request for parcels of up to 20 kg and outgoing post, except for La Poste.	Prices under monopoly are the only ones being controlled and have to be approved by the DETEC (Postreg prepares the decision and the Price supervisor is consulted).	The Swiss Post and the concessionary must provide Postreg with information, but no specific inspection powers have been granted to Postreg in this respect.	Concession revocation (LPO art.8): the DETEC may withdraw and implementing it.
FOT	Licence and security certificate are produced by FOT. No restricted access for international companies according to the bilateral agreement between Switzerland and the EU; the directive 91/440.	Marginal costs and other taxations set by the federal ordinance on the railway access. Additional prices are set by railway companies. Adequacy between prices and services are analysed by the Price supervisor.	FOT has the mission to supervise railway undertakings benefitting from a federal concession. Supervision includes technical, financial, operational aspects.	FOT may withdraw licences and safety certificates in case of inadequate or illegal use.
FOCA	- OFAC: operating licences for foreign and Swiss firms commercially carrying freight or passengers via aircrafts - DETEC: road concessions for the regular operation of Swiss and foreign airlines.	Internal EU flights: FOCA applies regulation 2409/92: a member state may intervene to prohibit tariffs that are considered too high or too low. This intervention must be communicated to the Commission who will give an opinion. For other flights, the regime applied to tariffs and the nature of FOCA's intervention will depend on the content of the agreement signed with the State in question.	No inspection power. As part of its task, FOCA ensures that airport operators respect relevant legislation and conditions set by the DETEC in the concession.	Yes
COMCOM	Grants periodical concessions for the universal service (US). Approves the national numbering plans and ensures practicality of number portability and free choice of provider. Grants concessions for important services: grants radiocommunication concessions for the provision of telecommunication services.	No power concerning retail prices. Only the Federal Council can set a price ceiling for the provision of services linked to the US. Wholesale prices: ComCom can set them upon an operator's request within an interconnection procedure (only following an appeal procedure)	Concessionary has to deliver the granting body (OFCOM or ComCom) all the necessary information relevant to the proper implementation of the law.	ComCom may condemn a firm transgressing the concession, or a decision legally enforced in its own interest to pay a sum up to three times the obtained gain. Otherwise, the amount can reach up to 10% of the last annual turnover realized by the firm in Switzerland. ComCom may take administrative measures against the concessionary who does not respect his obligations. They may require the concessionary to set the breach straight, or to take measures in order to avoid any recurrence. They may require the concessionary to hand the illegal benefit to the Confederation, or join charges to the concession; they may limit, suspend, revoke or withdraw the concession
OFCOM	Management and allocation of address resources in accordance to international norms and principles of objectivity, non-discrimination and transparency. Grants concessions for less important services or radiocommunications	No power concerning retail prices. Only the Federal Council can set a price ceiling for the provision of services linked to the US.	Concessionary has to deliver the granting body (OFCOM or ComCom) all the necessary information relevant to the proper implementation of the law. In case of a supervision procedure, OFCOM may request information from the actors involved and proceed to a site inspection. OFCOM can have access to the premises where telecommunications facilities are installed to make sure that instruction on: market launching, installing and operating of telecommunication facilities are respected.	OFCOM may take administrative measures against the concessionary who does not respect his obligations. They may require the concessionary to set the breach straight, or to take measures in order to avoid any recurrence. They may require the concessionary to hand the illegal benefit to the Confederation, or join charges to the concession; they may limit, suspend, revoke or withdraw the concession.

Source: OECD Secretariat based on questionnaires related to supervisory authorities.

ANNEX 5. Independence and financing of regulatory authorities

Authority	Top management	Nomination	Mandate	Institutions	Staff	Budget	Financing	Accountability
POSTREG	Director	Secretary General of DETEC	Not set	Yes	7 administrative positions	No own budget	On budget of Secretary General of the DETEC	No specific accountability mechanisms. First annual report in 2005.
FOT	Director	Federal Council	Not set	Yes	About 300 people in total for FOT. 1/3 of the staff is dealing with tasks linked to regulation (various tasks incl. Rail).	4'200'000'000 CHF in total (incl. infrastructure investment)	Annual budget voted by the Parliament	Director is subordinate to DETEC. Accountable to Ministry who, in turn, is accountable to the Parliament. FOT has an annual report.
RACO	President and Vice-President	Federal Council	4 non-renewable	No	7 members who are not full-time. One staff works part-time beside the 7 members.	440,000 CHF in 2004	Federal budget	Accountable to the Federal Council and the Federal Assembly. Annual report addressed to the Federal Assembly
FOCA	Director	By the Federal Council, proposal by the Federal Counselor of the DETEC	Not set	Yes	230 employees	86 million CHF (additional credit incl.)	Confederation budget. Specific taxes. (See Ordinance OTA, RS 748.112.11)	Subordinate to the DETEC. Annual reports. External evaluation operated by Institute NLR (Safety Oversight Aviation Program of the ICAO)
COMCOM	President and Vice-President, 7 members in total	By the Federal Council	4 renewable only twice	No	The ComCom Secretariat has 3 administrative positions; the 7 members of ComCom work part time, except the President who works at 80%.	For ComCom: 0,9 mio. CHF	ComCom and OFCOM's expenditure are entirely covered by revenue originating from concession fees and charges. The amount of the fees is set by the DETEC. Auto-financing was over 100% in 2003	Annual report to the attention of the Federal Council
OFCOM	Director	Federal Council (Vice-directors are nominated by the DETEC)	Not set	No	310 people for a total of 280 full-time positions pour un total de 280 postes de travail à temps complet. 61 people (52,7 positions) work for the telecommunications services division.	For OFCOM: 56,5 mio. CHF For telecom 19,1 mio. CHF		Subordinate to the DETEC. Accountable to the Ministry who in turn is responsible to the Parliament. OFCOM has an annual report. As an administrative unit of the Confederation, OFCOM is under supervision of the DETEC. Besides, it may receive instruction from ComCom for ensuring the implementation of the legislation on telecommunications
Further examples								
COMCO	Presidency of 3 members Comco : 15 members	Federal Council	4 years. Renewable, but 12 years max., exception ally 16 years	No	Secretariat people	7.200.000 CHF in 2005	Le budget is received from the Federal Department of economic affairs	Annual report for the Federal Council. It is its task to inform the public on its activities
SFBC	1. President, 7-11 members	Federal Council	4 years	No	Secretariat people	25.5 M CHF in 2004	Financing through an annual supervisory fee paid by supervised institutions	

Source: OECD Secretariat based on questionnaires related to supervisory authorities.

ANNEX 6. General presentation of aviation authorities, supervision, overall regulatory aspects

Country	Aviation authorities	Legal status	Staff	Main function	General comments on tasks and scope
Austria	OZB ¹ , part of the Ministry BMVIT ² Astrocontrol	Administration		General management of air transportation Agency for safety and air traffic control General Aviation agency	Air traffic policy, aviation law, flight security. Supervision of Austrocontrol in the area of technical and flight operations. Secretariat of the air accident investigation authority. Supervision of flight operations, Permission for entry, exit, transit of state aircrafts. Certification of civil aircraft and equipment. Personnel licensing Responsible: for air transportation safety (SFACT ³) in defining and implementing French aviation policies to the benefit of the French aviation industry. Covers practically all aspects of aviation in France: air navigation services, training, aviation studies, aviation policy, regulation and oversight - Supervision of aviation industry - Supervision over general aviation - Supervision of commercial air transport operators: investigates economic capacity, maintenance, flight operations and security measures
France	DGAC ³	Governmental body, resorts of the Ministry of Transport	~900 ~450	Essentially safety regulator	
Germany	LBA ³	Superior Authority, subordinated to the Federal Ministry of Transport, Building and Housing	~420	Deals with various regulatory aspects of the air transport system. Performs monitoring functions in relation to the enforcement of the adopted rules	Safety and security, passenger rights, quality standards of airport operators; controlling airport services: regulating procedures, tariffs, charges; certification of personnel; environment and territorial protection
Italy	ENAC ⁶	Public body with regulatory, organisational, administrative and financial independence		Responsible for implementing and enforcing aviation policy and regulation. Has both executive and enforcement tasks	
Netherlands	IVW ⁷		~230	Responsible for legislation and supervision of the civil aviation sector.	Executive tasks linked to: aircraft, infrastructure, air traffic operations Enforces civil aviation policy and legislation regarding safety, noise and quality of the air
Switzerland	FOCA ⁸	Special division of the DETEC	180/230*	Responsible for aviation security and its implementation Economic regulation, airspace policy, safety regulation, consumer protection	First priority is aviation safety Second priority is competitiveness of Swiss aviation industry.
United Kingdom	UK Department for Transport CAA ⁹	Administration Independent Public corporation financed by fees and charges		Economic regulation of airports (BAA's London Airports and Manchester) and NATS ¹⁰ ; controls charges set by airports and NATS. Develops standards of service, provides incentives to invest in new capacity and make best use of existing assets. Provides statistics. Deals with environmental impact of aviation	

Source: National aerospace laboratory (NLR) on Aviation safety management in Switzerland 2003 adjusted by the OECD Secretariat¹ OZB: Oberste Zivilluftbehörde, ² BMVIT: Bundesministerium für Verkehr, Innovation und Technologie, ³ DGAC: Direction générale de l'aviation civile, ⁴ SFACT: Aeronautical training and technical inspections department, ⁵ LBA: Luftfahrt-Bundesamt, ⁶ ENAC: Ente nazionale per l'aviazione civile, ⁷ IVW: Aviation division of the inspectorate general of transport, public works and water management, ⁸ FOCA: Federal office for civil aviation, ⁹ CAA: Civil aviation authority, ¹⁰ NATS: National air traffic services. *Staffing levels were at 180 in 2003 and have been increased to 230 following to the reform of FOCA in 2005.

ANNEX 7: Organisation of air transport safety

Country	Safety authorities	Licensing	Safety inspections	Ramp checks	Total Staff in relation to safety	Inspecting staff
France	SFACT ¹ DGAC ²	Yes	~1600 safety inspections and audits per year	~1000 per year	450	110 for ramp-checks and safety inspections
Germany	LBA ³	Yes		~700 per year	420	8 for ramp-checks & several federal inspectors
Netherlands	IVW ⁵	Yes	~150 safety inspections and audits per year excluding inspection on maintenance organisations	~100 per year	230	10 inspectors for ramp-checks, 25 inspectors for inspections/ audits on infrastructure
Switzerland	FOCA ⁶	Yes	64 safety inspections and audits in 2002	161 in 2002	130	11 inspectors, of which 2 conducted ramp-checks in 2002

Source: National aerospace laboratory (NLR) on Aviation safety management in Switzerland 2003 adjusted by the OECD Secretariat

¹ SFACT: Aeronautical training and technical inspections department, ²DGAC: Direction générale de l'aviation civile, ³LBA: Luftfahrt-Bundesamt, ⁴ENAC: Ente nazionale per l'aviazione civile, ⁵IVW: Aviation division of the inspectorate general of transport, public works and water management ⁶FOCA: Federal office for civil aviation, ⁷CAA: Civil aviation authority

ANNEX 8: Overview of air accident investigation

Country	Accident investigation authority	Reports to	Staff	Time between accident date and publication of report	Monitoring recommendations	Comments
Austria	FUS ¹ part of the BMVIT ²			~12 months		Functionally and organisationally independent, but is subordinate to the BMVIT. The main objective of the investigations led by FUS is to determine the origin and the causes of the accident
France	BEA ³	Ministry of Transport	30 investigators, 10 investigative assistants	~34 months	DGAC is in charge of answering and implementing safety recommendations. BEA monitors the status of their safety recommendations	Most recommendations made by BEA are concise, clear. Safety recommendations are considered feasible in most cases
Germany	BFU ⁴	German Ministry of Transport	22 accident investigators	~16 months, but is increasing slightly		Most safety recommendations made are described in great detail and seem to be feasible most of the time. 80% of the recommendations are implemented by organisations involved
Netherlands	RvTV ⁵	Ministry of Transport	6 investigators within the aviation division	~31 months	No	RvTV is not limited to aviation only. Most recommendations made by RvTV are concise, clear. Safety recommendations are considered feasible in most cases
Switzerland	AAIB-CH ⁶	FOCA	5 investigators	~18 months	Responses to recommendations are given by FOCA. Responses are monitored and reported by AAIB	For accidents involving aircraft in the weight category of over 5700kg the implementation rate of recommendations is about 62%. In 43% of these cases, AAIB considers the implementation of the recommendations not satisfactory.
United Kingdom	EFUK ⁷ : organ of recourse against the AAIB-CH report AAIB-UK ⁸	Independent but administratively subordinate to the DETEC Part of the Department for Transport	5 members 53, 5 teams of inspectors	Non applicable	Non applicable	There is a possibility of recourse on the investigation report of AAIB with EFUK who will decide the AAIB report as final or write the final report Its tasks are to contribute to timely publication of reports and producing safety recommendations that are well researched and effective

Source: National aerospace laboratory (NLR) on Aviation safety management in Switzerland 2003 adjusted by the OECD Secretariat.

¹ FUS: Fluguntersuchungsstelle, ²BMVIT: Bundesministerium für Verkehr, Innovation und Technologie, ³BEA: Bureau enquêtes-accidents, ⁴BFU: Bundesstelle für Flugunfalluntersuchung, ⁵RvTV: Transport safety agency, ⁶AAIB-CH: Swiss aviation accident investigation bureau, ⁷EFUK: Eidgenössische Flugunfallkommission, ⁸UK Aviation accident investigation branch

ANNEX 9. Legal status and general description of slot co-ordinators

Country	Slot Co-ordinator	Legal status	Budget (euros)	Financing
Austria	Schedule Co-ordination Austria GmbH	Limited liability company. Owned by Austrian airlines and airports	800.000 for 2003	Associates for the moment. Setting up of charges is planned
France	COHOR ¹	Non-profit association of French airlines and airports. Employees from Air France	1.20M per year	Costs are mainly covered by fees paid by members. Airport managing bodies and airlines each cover 50% of the total cost. <ul style="list-style-type: none"> - Amongst airports, cost is heard according to the total number of co-ordinated aircraft movements. - Amongst the airlines, 1/3 of their contribution is equally shared, the remainder is covered according to the total number of slots each member has
Germany	APCG ²	Non-profit organisation. The airport co-ordinator reports to the German Federal Ministry of Transport and is subject to legal supervision	Annual turnover 3.3 M	APCG is funded by German airlines. APCG has agreements with airplane owners who take over charges. Final responsibility of funding lie with the Federal Ministry of Transport for reasons of neutrality
Italy	Assoclearance	Non-profit association of 8 Italian airlines and 12 airport companies	Annual turnover 1.3 M expected for 2005	By carriers (50%) and airport companies (50%)
Netherlands	SACN ³	Ministry of Transport, public works and water management provides the legal framework for the independent foundation SACN, association belonging to several Dutch airlines	~0.657 M annually	1/3 from airport Amsterdam-Schiphol 2/3 from Dutch airlines according to number of slots used
Spain	Aena ⁴	Division of the national airport operator and air control association. State owned company	145 M in 2003	Self-financed through airport and air navigation charges and commercial revenue derived from its services
Switzerland	Slot Co-ordination Switzerland	Non profit organisation. Members: 4 carriers, 2 airport companies. Members' liability is limited	760.000 in 2004	Organisation's financing is based on number of slots: <ul style="list-style-type: none"> - 49% by airport companies Zurich and Geneva - 49% by carriers base in Switzerland - 2% by FOCA
United Kingdom	ACL ⁵	Corporation. Owned by 10 UK airlines. Non-profit organisation. Its status is "Limited guarantee". Liability of its members is limited	3.1 M annual turnover	70% from airports 20% from airlines 10% from provided services

Source: European Union Airport Co-ordinators Association (EUACA), National Submissions to Airport Roundtable (DAFFE/CLP/1998) adjusted by the OECD Secretariat; additional information from OFAC. ¹COHOR: Association pour la co-ordination des horaires, ²APCG: Airport co-ordination Germany, ³SACN: Airport co-ordination Netherlands, ⁴Aena: Airport and air navigation services, ⁵ACL: Airport co-ordination Ltd

ANNEX 10. Status and scope of services of air traffic providers

Country	Air traffic service providers	Legal status	Controlled airspace	Size of controlled airspace	Total staff	Scope of services
France	DNA ¹	Administration	Lower and upper airspace	1 159 347 km ²	8 453	Only civil aviation, no military operations
Germany	DFS ²	Company organised under private law, owned by the state	Lower and upper airspace	386 421 km ²	5 214	Civil aviation and military operations
Italy	ENAV ³	Publicly controlled joint-stock company	Lower and upper airspace		3 300	
Netherlands	LVNL		Lower airspace, up to flight level 245	90 324 km ²	913	Only civil aviation
Switzerland	Skyguide	Public company (SA) controlled mainly by the Confederation	Lower and upper airspace	63 726 km ²	1 057	Civil aviation, and military operations
United Kingdom	NATS ⁴	Public private partnership between the Airline Group (consortium of seven UK airlines (42%), NATS staff (5%), UK airport operator BAA plc (4%), government (49%)			5 000	Civil aviation and defense (tbc)

Source: NLR on Aviation safety management in Switzerland 2003; Cour des Comptes 2002, adjusted by the OECD Secretariat.

1. DNA: Direction de la navigation aérienne.
2. DFS: Deutsche Flugsicherung GmbH.
3. ENAV: Italian company for air navigation services.
4. NATS: National air traffic services.

ANNEX 11. Legal status and general description of national postal regulatory authorities

Country/ Regulator	Year of creation/ beginning of postal regulation	Combined with other postal sectors	Legal status
<i>Austria:</i> Ministry of Transport, Innovation and Technology, Dept. for Postal Affairs	1999	Ministry	Ministry of Transport, Innovation and Technology, Department for Postal Affairs
<i>Denmark:</i> Road Safety and Transport Agency, Postal Supervisory Department	1995	Other, road safety and transport	Authority under the auspices of the Ministry of Transport
<i>Finland:</i> Finnish Communications Regulatory Authority	1994	Yes, Telecom	An independent agency
<i>France:</i> ARCEP, Electronic communications and postal regulatory authority	2005	Yes, Telecom	Independent Administrative Authority
<i>Germany:</i> Federal Network Agency	1998, modified 2005	Yes, Telecom, Electricity and Gas	Higher Federal Authority
<i>Ireland:</i> Commission for Communications Regulation	2002	Yes, Telecom and other	
<i>Italy:</i> Ministry of Communications	1999	Ministry	Ministry of Communications
<i>Netherlands:</i> Independent Post and Telecommunications Authority	1997	Yes, Telecom	Public body created by law
<i>Spain:</i> Infrastructure Ministry	1998	Ministry	Department attached to the Vice-Minister
<i>Sweden:</i> National Post and Telecom Agency	1994	Yes, Telecom	Licensing and supervisory authority
<i>Switzerland:</i> Postreg	2004	Ministry	Administratively attached to the Secretary General of the DETEC (Infrastructure ministry)
<i>United Kingdom:</i> PSC Postal Services Commission (PostComm)	2000	No	Independent Regulator, Non-Ministerial Government Department

Source: WIK report 2004 and CERP 'compendium' adjusted by the OECD Secretariat.

ANNEX 12. Independence of national postal regulatory authorities

Country/Regulator	Appointed by	Head/ Board	Terms	Financing source	Budget (EUR000) 2003	Employees (professional)
<i>Austria:</i> Ministry of Transport, Innovation and Technology, Dept. for Postal Affairs	Minister of Post	Director	None	State Budget	-	-
<i>Denmark:</i> Road Safety and Transport Agency, Postal Supervisory Department	Minister of Post	1 Director	No	State budget	-	6 (3) WIK / 8 CERP
<i>Finland:</i> Finnish Communications Regulatory Authority	The President	1	Indefinite	Net budgeting: all expenses are covered by income from operations, (fees for public services)	1,208	9 (2) WIK / 5 (3 are part-time) CERP
<i>France:</i> Ministry of Industry/ARCEP	President (3), President of the Senate (2), President of the National Assembly (2)	7 Board	6 years, not renewable	State Budget	-	-
<i>Germany:</i> Federal Network Agency	Nominated by the Federal Government upon the proposal of the Advisory Council. Appointed by the President	3	5 years	Government	-	-
<i>Ireland:</i> Commission for Communications Regulation	Minister of Post	1-3	3-5 years, max 2 terms	Industry Levy on USP's	614	5 WIK / 4 CERP
<i>Italy:</i> Ministry of Communications	Prime Minister	1 Head	5 years	State budget	847	20
<i>Netherlands:</i> Independent Post and Telecommunications Authority	Minister of Post	3	4 years	Public finance and own income	895	4 (4) WIK / 100 CERP
<i>Spain:</i> Ministerio Fomento, Subd. Regulación Serv. postales	Minister of Fomento	1 Head	None	National budget	-	52 WIK / 50 CERP
<i>Sweden:</i> National Post and Telecom Agency	Government	Director-General	6 years	Licensing fees	898	6 (6) WIK / 15 CERP
<i>Switzerland:</i> Postreg	Secretary General (SG) of the DETEC	Director	No	Financed by the State Budget	-	7/6
<i>United Kingdom:</i> PSC Postal Services Commission	Secretary of State for Trade and Industry	7	3 years	Licensing fees	12 998	37 WIK / 38 CERP

Source: WIK report 2004 and CERP 'compendium' adjusted by the OECD Secretariat. Note: in certain cases, numbers also correspond to telecommunications authorities.

ANNEX 13. Regulatory power of national postal authorities

Countries / Regulators	require disclosure by universal provider (USP)	require studies by USP	require accounts by USP	Sanctions, levy fines	Obtain judicial enforcement	cancel USP rates	set up USP rates	require access to USP
<i>Austria:</i> Ministry of Transport, Innovation and Technology, Dept. for Postal Affairs	Yes		Yes					
<i>Denmark:</i> Road Safety and Transport Agency, Postal Supervisory Department	Yes					Yes	Yes	
<i>Finland:</i> Finnish Communications Regulatory Authority	Yes	Yes	Yes	Yes				Yes
<i>France:</i> Ministry of Industry/ARCEP	Yes	Yes	Yes	Yes	Yes			Yes
<i>Germany:</i> Federal Network Agency	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Ireland:</i> Commission for Communications Regulation	Yes	Yes	Yes		Yes			
<i>Italy:</i> Ministry of Communications	Yes	Yes	Yes	Yes		Yes	Yes	Yes
<i>Netherlands:</i> Independent Post and Telecommunications Authority	Yes	Yes	Yes	Yes	Yes			
<i>Spain:</i> Infrastructure Ministry	Yes	Yes	Yes			Yes		
<i>Sweden:</i> National Post and Telecom Agency	Yes	Yes	Yes			Yes		
<i>Switzerland:</i> Postreg	Yes	Yes	Yes	No	No	No	No	No
<i>United Kingdom:</i> Postal Services Commission	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Source: WJK report 2004 and CERP 'compendium' adjusted by the OECD Secretariat.

ANNEX 14. Scope of the monopoly and market openness in the postal sector

Countries	Limits on letter post sent until 31/12/02		Limits on letter post from 01/01/03		Opening of Direct mail	Opening of outgoing cross-border mail
	Weight	Price	Weight	Price		
Austria	350g	5	100g	3		Yes
Belgium	350g	5	100g	3		Yes
Denmark	250g	5	100g	3		Yes
Finland	Legal monopoly has been abolished but only one license has been installed (US provider)					
France	350g	5	100g	3		Yes
Germany	200g*	5	100g*	3	50g	Yes
Greece	350g	5	100g	3		No
Ireland	350g	5	100g	3		Yes (Jan 2004)
Italy	350g	5	100g	3	10 000	No
Luxembourg	350g	5	100g	3		No
Netherlands	100g	3	100g	3	0g on "printed" ones (except if tariff is not negotiated)	Yes
Portugal	350g	5	100g	3		No
Spain	350g**	5	100g**	3	Non-sealed envelopes and cross-border Direct mail	Yes, Direct mail
Sweden	0g	0	0g	0	0	Yes
Switzerland	2000g	5	1000g (since 01.01.04)	5	1000 g / 5 (since 01.01.04)	Yes
United Kingdom	350g	1GBP	100g/3/ Postcomm delivers the licenses. Amount : allots licences in a certain perimeter / number of items > 4000 liberalised letter post items			Yes

Source: Joëlle Toledano, éd. *Economie postale, les fondements*, 2004, adjusted by the OECD Secretariat for Switzerland. *: without value added services **: without local expedition.

ANNEX 15. Comparative data on postal operators

	Operating revenues 1999 ⁽¹⁾	Operating revenues 2003 ⁽¹⁾	Nominal Evolution In % per year (2003/1999)	Evolution in real terms ⁽²⁾ In % per year (2003/1999)	Staff 1999	Staff 2003	Evolution In % (2003/1999)	Evolution of productivity	Operating revenues per employee 2003
Belgium	1 792	1 954	2.2	0.5	41 182	39 002	-1.4	1.9	50 095
Denmark		10 644			25 700	27 682	1.9	0.0	51 931
Finland	1 014	1 156	3.3	1.5	25 347	23 740	-1.6	3.2	48 710
France	14 542	15 436	1.5	-0.1	287 479	285 802	-0.1	0.0	54 010
Germany ⁽³⁾	22 383	40 017	15.7	14.6	264 424	348 781	+7.2	+7.9	114 734
Italy	6 240	7 697	5.4	2.6	173 722	150 746	-3.5	6.3	51 058
Netherlands	3 651	3 893	1.6	-2.1	60 285	62 070	0.7	-2.8	62 725
Norway	13 125	15 549	4.3	0.1	29 240	24 544	-4.3	4.6	79 637
Spain	1 250	1 756	8.9	4.6	64 515	59 822	-1.9	6.6	29 355
Swiss Post only	5 882	6 858	4.0	3.0	42 568	40 938	-1.0		
Swiss Group ⁽⁴⁾	7 441	8 606	3.7	1.2	43 853	43 416	-0.3	+3.2	104 592
United Kingdom					213 414	191 843	-2.6	3.9	65 448

Data source UPU 2004. ⁽¹⁾data in millions, national currency: Euros for Germany, Belgium, Spain, Finland, France, Italy, Netherlands, CHF for Switzerland, Norwegian crowns for Norway, Pounds for the United Kingdom, Danish crowns for Denmark ⁽²⁾ correcting the evolution of national prices (GDP Deflator). ⁽³⁾ Operating Revenues per employee in real terms : average annual evolution on the period 1999-2003. ⁽⁴⁾ German Post data www.dpwt.de. ⁽⁴⁾ For the staff, data is extracted from the Annual Report of La Poste Suisse (2000; 2004). Note: Operating conditions of the different operators can vary according to the role of financial services or services other than postal.

ANNEX 16. Appointment of the Head of the Telecommunication regulators

Country	Appointed by	Term of office	Renewable Terms (Parenthesis means renewed only once)	Dismissal of the Head	Number of Appointed members including the Head
Australia	The Governor-General	The period must not exceed 5 years.	No	Possible	3-5
Austria	The Minister and the Federal Chancellery	5 years	Yes (once)	Not possible	3 (There are another 3 substitute members in case of a member's death, retirement etc.)
Belgium	The Minister	6 years	Yes	Possible	4
Canada	The Governor in Council	5 years	Yes	Possible	13 full-time including Head (maximum); 6 part-time (maximum)
Czech Republic	The Minister	4 years	Yes (once)	Possible	1
Denmark	The Minister	Indefinite	-	Possible	1
Finland	The President	Indefinite	-	Possible	1
France	The President (members of the executive board are appointed by the President, the President of the National Assembly and the President of the Senate.)	6 years	No	Not possible	5
Germany	The President	5 years	Yes	No specific provisions (Members of the Presidential Chamber (one of the Ruling Chambers which implements decision-making) depend on political appointment and they have annullable public service contracts, whereas the members of the other ruling chambers are lifetime officials.)	1
Greece	The Minister	5 years	Yes (once)	Possible	9
Hungary	The Prime Minister	5 years	Yes	Possible	6
Iceland	The Minister	5 years	No specific provisions	No specific provisions	1
Ireland	The Minister	Indefinite	-	Possible	1-3
Italy	The President	7 years	No	No specific provisions	9
Japan	The Minister (in case of Telecommunications Business Dispute Settlement Commission)	3 years	Yes	Possible	5

Country	Appointed by	Term of office	Renewable Terms (Parenthesis means renewed only once)	Dismissal of the Head	Number of Appointed members including the Head
Korea	The President (in case of KCC)	3 years	Yes	Possible	9 (maximum)
Luxembourg	Gouvernement en Conseil	3 years	Yes	Possible	7
Mexico	The Minister	Indefinite	-	Possible	4
Netherlands	OPTA: The Crown; Radio-communications Agency: The Minister	OPTA: 4 years; Radio-communications Agency: Indefinite	OPTA: Yes; Radio-communications Agency: No specific provisions	OPTA: Possible; Radio-communications Agency: Possible	OPTA: 3; Radio-communications Agency: 4
New Zealand	The Governor-General	5 years	Yes	No specific provisions	4-6
Norway	King in Council	Indefinite	-	No specific provisions	1
Poland	The President of the Council Ministers	5 years	No specific provisions	Possible	1
Portugal	The Council of Ministers	5 years	No	Possible	3-5
Slovak Republic	The National Council	6 years	Yes (once)	Possible	1
Spain	CMT: The Government with approval from the Parliament; State Radio-communications Agency: -	CMT: 6 years; State Radio-communications Agency: -	CMT: Yes (once); State Radio-communications Agency: -	CMT: Possible; State Radio-communications Agency: -	CMT: 9; State Radio-communications Agency: -
Sweden	The Government	6 years	Yes	Possible	9
Switzerland	OFCOM: The Minister ComCom: The Federal Council	OFCOM: Indefinite ComCom: 4 years	OFCOM: - ComCom: Yes (twice)	OFCOM: Possible ComCom: No specific provisions	OFCOM: 1 ComCom: 5-7
Turkey	The Council of Ministers	5 years	Yes	Possible	5
United Kingdom	The Secretaries of State	Between 3 and 5 years	Yes	Possible	9
United States(*)	The President; need to be confirmed by the Senate	5 years	Yes (once)	Possible	5

Notes: (*) Entries for the United States only reflect telecommunications regulation at the Federal level.

Source: OECD.

ANNEX 17. Regulations of Interconnection in the telecommunication sector

Country	Authorisation of interconnection charges of operators with 'significant market power'	Regulating Local Loop Unbundling	Dispute resolution	Notes
Australia	C	C	C	
Austria	R	R	R	
Belgium	R	R	C	
Canada	R	R	R	
Czech Republic	R	R	R, C	
Denmark	R	R	R	
Finland	R	R	R	
France	R	R	R	
Germany	R	R	R	
Greece	R	R	R	
Hungary	R	R	R	
Iceland	R	R	R	
Ireland	R	R	R	
Italy	R	R	R	
Japan	M	M	R (Telecommunications Business Dispute Settlement Commission)	According to the revision of Telecommunications Business Law which went into effect in April 2004, ex-ante regulations with regard to interconnection such as prior notification of interconnection agreement for non-dominant carriers were abolished.
Korea	M, R(KCC)	M	R(KCC)	KCC has had the authority, since April 2004, to issue corrective orders for unfair practices and impose fines on a telecom operator for unfair practices.
Luxembourg	R	R	R	
Mexico	R	- (*)	R	
Netherlands	R	R	R	
New Zealand	R	- (*)	R	
Norway	No authorization	M	R	
Poland	R	R	R	
Portugal	R	R	R	
Slovak Republic	R	R	R	
Spain	R	R	R	
Sweden	R	R	R	

Country	Authorisation of interconnection charges of operators with 'significant market power'	Regulating Local Loop Unbundling	Dispute resolution	Notes
Switzerland	No authorization	-(*)	R (ComCom)	The parties to an interconnection agreement shall send OFCOM a copy of the contract when it has been concluded. In parallel with fixing conditions for interconnection by ComCom, OFCOM shall consult the Competition Commission to determine whether a provider has a dominant position, and the Competition Commission may publish its opinion.
Turkey	R	-(*)	R	
United Kingdom	R	R	R	
United States	R, State Utilities Commission	R	R, State Utilities Commission	Any interconnection agreement adopted by negotiation or arbitration shall be submitted for approval to the State commission. If a State commission fails to act to carry out its responsibility in the proceedings such as arbitration, then the Commission shall assume it.

Notes: (*) Mexico, New Zealand and Switzerland have not yet implemented unbundling. In Turkey, regulations on local loop unbundling will be implemented by 1 July 2005.

M – Ministry, R – Regulator, C – Competition Authority.

Source: OECD, DSTI/ICCP/TISP(2005)6.

ANNEX 18. Regulating Pricing in the telecommunication sector

Country	Type of regulation	Coverage of regulation	Regulatory body	Notes
Australia	Price cap	Incumbent PTO only	C	Following advice from the DCITA, the Minister has directed the ACCC to conduct a public inquiry into the nature of price control arrangements that should apply after the expiration on 30 June 2005 of the Telstra Carrier Charges - Price control arrangements.
Austria	Tariff approval	Voice telephony services via a fixed network and leased lines which incumbent PTO supplies	R	
Belgium	Price cap	Basic voice telephony services of incumbent PTO under the USO	R	
Canada	Price cap or prior approval	Incumbent PTOs only	R	
Czech Republic	Price cap	Rental charge, national calls (local and long distance), information and operator services, and public pay phones (Rental charge and national calls are only for incumbent PTOs.)	R	
Denmark	Price cap	USO services by incumbent PTO	R	
Finland	Freely set by operators	-	C	Retail prices are not regulated.
France	Price cap; tariff approval	Price cap: USO services; Tariff approval: other (monopolistic) services	R	
Germany	Price cap; tariff approval	Baskets of combined services in a price cap include rates for access services (Non incl. rates for end user)	R	
Greece	Tariff approval	Incumbent PTO's services	R	
Hungary	Price cap	Retail PSTN services	R	
Iceland	Price cap	USO services by an incumbent PTO	R	
Ireland	Price cap	Baskets of combined services in a price cap include rates for PSTN and ISDN retail; local; national; fixed to mobile; operator assisted; and directory enquiry calls services	R	
Italy	Price cap	Baskets of combined services in a price cap include rates for access services, telephony services and fixed to mobile calls.	R	
Japan	Notification; price cap	USO services, designated telecommunications services (services through essential facilities) and specified telecommunications services (designated telecommunications services having a significant influence on the user's benefit)	M	Notification is expected for universal telecommunications services and designated telecommunications services; and a price cap is imposed on specified telecommunications services.
Korea	Tariff approval	KT's fixed-line service and SKT's mobile service	M	
Luxembourg	Freely set by operators	-	R	Dominant operators have to demonstrate that prices are based on costs.
Mexico	Price cap; tariff approval	Price cap: Incumbent PTO's services; tariff approval: international long distance service	Price cap: M; tariff approval: R	Basket for a price cap includes charges for installation, monthly rental, measured local service and long distance services.

Country	Type of regulation	Coverage of regulation	Regulatory body	Notes
Netherlands	Price squeeze; tariff approval	Incumbent PTO's services with significant market power regarding end-user tariffs for fixed telephony and for leased lines	R	
New Zealand	Kiwi Share Obligations requirement	Telecom New Zealand local residential telephone services	R	Kiwi Share Obligations requirement: The charge of local residential telephone service should be no more than the standard residential rental etc.
Norway	Tariff approval	Operators with significant market power in regard to offers of access to public telecommunications network, offers of public telephony services or transmission capacity	R	Operators with significant market power have to demonstrate that prices are based on costs.
Poland	Tariff approval	USO and leased lines of operators with significant market power	R	
Portugal	Tariff approval	-	R	Operators with significant market power have to demonstrate that prices are based on costs.
Slovak Republic	Price cap	Fix telephone public services of an incumbent PTO	R	Notification is required for services which are not subject to price cap regulation.
Spain	Price cap	Fixed telephone service and leased lines of operators with significant market power	R	The existing requirement for ex-ante approval of specific retail tariffs was transformed into a requirement only to notify the regulator of tariffs.
Sweden	Tariff approval	Incumbent PTO: fixed telephony services, minimum set of leased lines, fixed subscriptions and interconnection (fixed and mobile); Other operators: fixed interconnection and mobile interconnection (market based tariffs)	R	Operators have to demonstrate that prices are based on costs.
Switzerland	Price cap	USO services by incumbent PTO	M (Fed. Council)	
Turkey	Tariff approval; price cap	Approval on the basis of cost-orientation: national leased line services of incumbent PTO; price cap: other services of incumbent PTO	R	
United Kingdom	Price cap	BT's residential services	R	Retail price control focuses on the expenditure patterns of residential customers other than the top 20% of spenders.
United States(*)	Price cap or rate of return regulation	Retail and wholesale interstate services provided by incumbent local exchange carriers; some limited categories of service such as dial around 1+ services provided by both domestic and international carriers	R	Every common carrier was required to file all tariffs with the FCC, but in 2001/ 2002 the FCC decided to forbear from the tariffing requirements, which continue to apply to the category of carriers that are classified as dominant. But at this time, no carriers are considered dominant in the domestic market. In the international market, only Comsat World Systems is classified as dominant.

Notes: (*) Entries for the United States only reflect telecommunications regulation at the Federal level. M – Ministry, R – Regulator, C – Competition Authority.

Source: OECD.

ANNEX 19. Telecommunication Regulations of Universal Service

Country	Universal service framework	Existence of funding mechanism	Estimate cost of USO	Cost alloc.	Notes
Australia	Yes	Yes	R (ACMA)	M	All telecommunications carriers contribute to the funding of the USO by way of the Universal Service Levy. Carriers contribute in proportion to their relative market share. The DCITA facilitates timely payment of levy amounts received from carriers to USO providers.
Austria	Yes	Yes	M	R	A fixed incumbent had been designated as the USO provider at the end of 2004. There is a proposal to transfer USO responsibility to alternate operators.
Belgium	Yes	Yes	R	R	The fund has not been activated yet.
Canada	Yes	Yes	R	R	
Czech Rep.	Yes	Yes	R	R	
Denmark	Yes	Yes	R	R	If incumbent PTO provides documentation which proves that providing USO services involves a deficit on an overall basis, the funding mechanism will function. But the incumbent has not as yet had such a situation. It is designated as a USO provider until 2007.
Finland	Yes	No	-	-	
France	Yes	Yes	R	R	
Germany	Yes	Yes	R	R	There is the legal Universal Service levy, i.e. where compensation is granted, each undertaking has to contribute to such compensation by means of a retroactive US levy (no ex-ante financed US fund). The cost of universal service has not been calculated, since no universal service compensation has been granted.
Greece	Yes	No	-	-	
Hungary	Yes	Yes	M	M	
Iceland	Yes	Yes	R	R	No USO funding mechanism has been implemented.
Ireland	Yes	No	-	-	
Italy	Yes	Yes	R	R	
Japan	Yes	Yes	M	M	The cost has not been calculated because at present there is no net cost of providing existing US.
Korea	Yes	Yes	M	M	
Luxembourg	Yes	No	-	-	
Mexico	Yes	Yes	?	?	The cost has not been calculated on a formal basis.
Netherlands	Yes	No	-	-	
New Zealand	Yes	Yes	R	R	USO (referred to as Telecommunications Service Obligations is for local residential telephone service and does not require universal service coverage (i.e. all geographic areas and all customer types).
Norway	Yes	No	-	-	
Poland	Yes	Yes	R	R	

Country	Universal service framework	Existence of funding mechanism	Estimate cost of USO	Cost alloc.	Notes
Portugal	Yes	Yes	R	M, R	The incumbent is currently the US provider (concession until 2025). The cost of US has not been calculated.
Slovak Rep.	Yes	Yes	R	R	
Spain	Yes	Yes	R	R	The incumbent has been designated a universal service provider until 2005. Implementation of a fund is subject to the statement where the net cost of the universal service is stated to be an unjustified charge for the prevailing operator. However that statement has not been implemented so far.
Sweden	Yes	No	-	-	There is currently no designated universal service provider as a result of the expiry of the legal provisions that had designated the fixed incumbent.
Switzerland	Yes	Yes	?	R (OFCO M)	Universal service license is granted on a periodic basis by tender. If it will be impossible for the investment required for the universal service in a given area to be written off within the usual period, the applicant who submits the best bid shall receive the contribution. He must present his budget, accounts to OFCOM each year. Currently incumbent concession USO to the end of 2007.
Turkey	Yes	No	-	-	
UK	Yes	No	R	-	The incumbent is the designated USO provider.
United States	Yes	Yes	R	R	Every telecommunications carrier that provides interstate telecommunications services must contribute, on an equitable and non-discriminatory basis, to US.

Notes: M – Ministry, R – Regulator. Source: OECD. OECD, DSTI/ICCP/TISP(2005)

ANNEXE 21. Basic regulatory framework for railway services and provisions for Third Party Access

Country	Status of incumbent operator				Infrastructure Separation			Access		
	Company	Status of company	Dates for Key recent reforms	Structural separation	Accounting separation	Third party access	Freight	Passenger transport		
AUSTRIA	ÖBB (Österreichische Bundesbahnen)	Government ownership	1992 enterprise		Yes	2002	Yes	Yes		
FRANCE	SNCF	EPICs (Public establishment with industrial and commercial purpose)	1997	Yes	Yes	1997	Partly: International freight 2003 /total freight in 2007	No: international traffic foreseen in 2010		
GERMANY	DB AG	State owned private stock company	1994 (merging DB and DR)/ 1999 (legal separation of the business units)		Yes	1994	Yes	Yes. In the field of long-distance passenger rail transport there is currently only 1 competitor: Connex Group. 1 passenger transport : DB holds a market share of 90%		
ITALY	Trenitalia	Part of Gruppo Ferrovie dello Stato SpA, a holding company 100% state-owned	2000	Yes		1999	Mandated access within a (soft) vertical separation framework.	Not really: domestic undertaking could operate passenger services in competition with Trenitalia only in principle. Existing legislation limits the possibility for foreign companies to operate domestically even through cabotage (only through an international grouping)		
NETHERLANDS	NS-Reizigers	100% state-owned	1996 and 2002		Yes	1995	Yes: Open market for freight services.	International passenger transport yes/Competition for passenger transport market is limited to some lines not part of the core NS network		
UK	Incumbent was split and does not exist anymore	All railway operating companies are private	1993 and 2000	Yes		1993	Yes	Yes		
SPAIN	RENFE (January 2005, Renfe +ADIF)	Public corporations under the direction of Ministry of Development (MdF)	2004	Yes		Yes	2006 market will be opened for international freight for all routes	There are currently no passenger railway operations other than RENFE for the main line network. There will be liberalisation of passenger services until a new Euro directive is agreed		
SWITZERLAND	SBB	Shareholding corporation (fully state-owned)	1999		Yes	YES 1998 Rail Access Decree	Open access for Swiss railway undertakings. Limitations by congestion of infrastructure	Right of access to railway network. However, request for passenger transport is subject to concession. SBB is currently the sole holder of a concession for long distance traffic.		

Source: National Submissions to Rail Roundtable (DAFFE/COMP/WP2(2005)), Steer Davies Gleave for the European Commission, NEA Transport research and training for the European Commission adjusted by the OECD Secretariat

ANNEXE 22. Licensing and Safety Regulation for railway services

Country	Licensing authority	Criteria for licensing	Comments
Austria	Ministry of Transport BMVIT ¹	Creditworthiness and competence (for national concessions), operator's eligibility and a safety certificate (for European concessions)	ÖBB. A safety certification is necessary for European concessions
France	Ministry of Transport	Criteria for attribution are: good repute, financial capacity, ability to cover legal liability, professional competence	
Germany	EBA ²	Licence is awarded on criteria of reliability, financial fitness, professional competence, insurance for liability	
Italy	Ministry of Transport (MIT)	Solvability, professional competence, record of stability, proof of good maintenance of rolling stock	Ministry of Transport sets standards for safety certificates, RFI ³ issues them.
Netherlands	IVW Netherlands Railway Authority	Professional qualities, reputation, financial stability, professional insurance	Operator must hold a safety certificate issued by IVW
Spain	Ministry of Development (MdF)	Railway undertaking must be registered in accordance with Spanish company legislation and the Railway Sector Law. The undertaking must demonstrate its financial robustness: ability to cover financial needs for 12 months period, assessment of its annual accounts, its equity and shareholders guarantees. Must demonstrate that it is up-to-date with its contributory and social security payments.	Certificate issued by Ministry of Infrastructure (MdF) by ADAF ⁴
Switzerland	FOT	Guarantee of well-functioning and safety of the operations, rolling stock fulfils requirements, labour rights and conditions are respected, respect of safety measures	The safety certificate is issued by the FOT
United Kingdom	Office for Rail Regulation (ORR)	There are 5 different licences standards	ORR issues, modifies and enforces licences HSE ⁵ issues safety certificated to railway undertakings and infrastructure managers. Responsibility passed to ORR in 2005.

Source: National Submissions to Rail Roundtable (DAFFE/COMP/MP2(2005)), Steer Davies Gleave for the European Commission, NEA Transport research and training for the European Commission adjusted by the OECD Secretariat

¹ BMVIT: Ministry of Transport, Innovation and Technology, ² EBA: Eisenbahn-Bundesamt, ³ RFI: Rete Ferroviaria Italiana Spa (infrastructure manager), ⁴ ADAF: Asociación de Acción Ferroviaria (institute for interoperability), ⁵ HSE: Health and Safety Executive

ANNEX 23. Regulatory framework and authorities for railway path allocation

Country	Regulator	Regulators tasks	Path infrastructure manager	Independence incumbent operator)	Charges for path utilisation
Austria	SCG ¹ and SCK ² (within SCG)	SCG: monitoring, system supervising SCK: taking decisions on conflicts between railway undertakings	Infrastructure manager ÖBB	No	BMVIT: decision-making process of charging. ÖBB is responsible for determining access charges from operators. There is no distinction between passenger and freight transport
France	Mission de contrôle des activités ferroviaires	Monitors the railway market, handles appeals to decisions related to charging and capacity allocation	RFF	Yes. But incumbent operator remains reference body for all technical issues: construction, operation and maintenance of the national rail infrastructure.	Set by Ministry of Transport on a proposal of RFF
Germany	EBA	Traditional tasks: licensing, safety, interoperability, statistics, dispute for capacity allocation settlement. Competition control enhanced in 2002	DB Netz	No. The infrastructure manager is still not sufficiently independent from the operator of the DB-Group.	DB Netz and Germany's infrastructure managers (regional network providers). Infrastructure charging scheme is based on one-price-for-all principle
Italy	Ministry of Transport	Issues guidelines, certificates, licenses and safeguards compliance of operating companies.	RFF ⁴ responsibility endorsed by Ministry of Transport (MIT).	Yes	Proposed by RFI, final decision by MIT. Charges reflect direct and indirect costs or running railway services (saturation of the track, weight, speed, energy consumption)
Netherlands	Dutch competition authority and Office of Transport regulation	Office of Transport Regulation has special powers to ensure correct functioning of the market	ProRail ⁵	Yes	Prorail. Charges for passenger trains depend on km run and stations used. Charges for cargo trains depend on km run
Spain	Rail regulator still to be established, will be integrated in the MdF	Rail regulator will resolve conflicts between ADIF and Railway users, on granting of safety certificates; application of criteria contained in network statement; capacity allocation procedures; amount, structure or application of charges	ADIF ⁶ infrastructure manager	Yes	ADIF. Charges must be in accordance with general economic principles of viability, efficient exploitation, market situation. Principles of equality, transparency non-discrimination. Environment, congestion, accident costs
Switzerland	Railway Arbitration Commission (RACO)	RACO: handles complaints regarding competition, takes decisions concerning network access agreements between parties	Infrastructure Managers SBB, BLS within boundaries of network access law.	No, there is no legal separation between infrastructure manager and railway operator	Railway undertakings concerned agree in a convention on forms of access to the network and of charging. Federal Council defines principles for setting charges
United Kingdom	Office for Rail Regulation	Responsible for regulatory issues, with Office of Fair Trading it is responsible for competition monitoring and enforcement	ORR for primary allocation track capacity. For secondary allocation: Network Rail	Yes	ORR. Ensure that access contracts contain appropriate incentives to promote efficient and effective performance

Source: National Submissions to Rail Roundtable (DAFFE/COMP/MP2(2005)), Steer Davies Gleave for the European Commission, NEA Transport research and training for the European Commission adjusted by the OECD Secretariat¹ SCG: Schienen-Control GmbH, ² SCK: Schienen-Control Kommission, ³ RFI: Rete Ferroviaria Italiana Spa (infrastructure manager), ⁵ Prorail: infrastructure manager, ⁶ADIF: Administrador de Infraestructuras Ferroviarias (infrastructure manager)

ANNEX 24. Comparison of European railways

	Passenger km		Ton km		Total		Staff		Productivity						
	1985	2001	Evol. %	1985	2001	Evol. %	1985	2001	Evol. %	Traffic per employee	Annual evol. %				
Austria	9628	8240	-14.4	14015	17346	23.8	23643	25586	8.2	61276	48509	-20.8	0.39	0.53	5.3
Belgium	6757	8038	19.0	8667	8173	-5.7	15424	16211	5.1	41891	41840	-0.1	0.37	0.39	0.9
Denmark	4684	5548	18.4	1767	1290	-27.0	6451	6838	6.0	15745	12737	-19.1	0.41	0.54	4.6
Finland	3184	3282	3.1	9293	9857	6.1	12477	13139	5.3	15228	12338	-19.0	0.82	1.06	4.5
France	55319	71209	28.7	48100	50396	4.8	103419	121605	17.6	181114	177685	-1.9	0.57	0.68	3.1
Germany	70334	74459	5.9	67609	80348	18.8	137943	154807	12.2	312579	214371	-31.4	0.44	0.72	8.6
Italy	43900	43800	-0.2	24050	24618	2.4	67950	68418	0.7	129773	109922	-15.3	0.52	0.62	2.9
Netherlands	13977	14392	3.0	3097	3549	14.6	17074	17941	5.1	28874	24822	-14.0	0.59	0.72	3.4
Norway	2381	2536	6.5	2715	2451	-9.7	5096	4987	-2.1	12415	9128	-26.5	0.41	0.55	4.9
Spain	15313	19161	25.1	10077	11749	16.6	25390	30910	21.7	38958	32868	-15.6	0.65	0.94	6.3
Sweden	6219	6352	2.1	18536	19829	7.0	24755	26181	5.8	21041	16120	-23.4	1.18	1.62	5.5
Switzerland	11712	13365	14.1	8156	10534	29.2	19868	23899	20.3	33529	28339	-15.5	0.59	0.84	6.1
UK	29331	39100	33.3	12537	19400	54.7	41868	58500	39.7	101483	63109	-37.8	0.41	0.93	14.4

Note: UK includes Railtrack+ROSCO+TOC+FOCs Norway: NSB+JBV Austria OBB+SCHIG Netherlands: NS RIB, Denmark: DSB+BS. Sweden: SJ+BV. Source NERA Jan 2004.
Report for DG Tren.

Figure 1. COST STRUCTURES OF RAILWAY SERVICES PROVIDERS

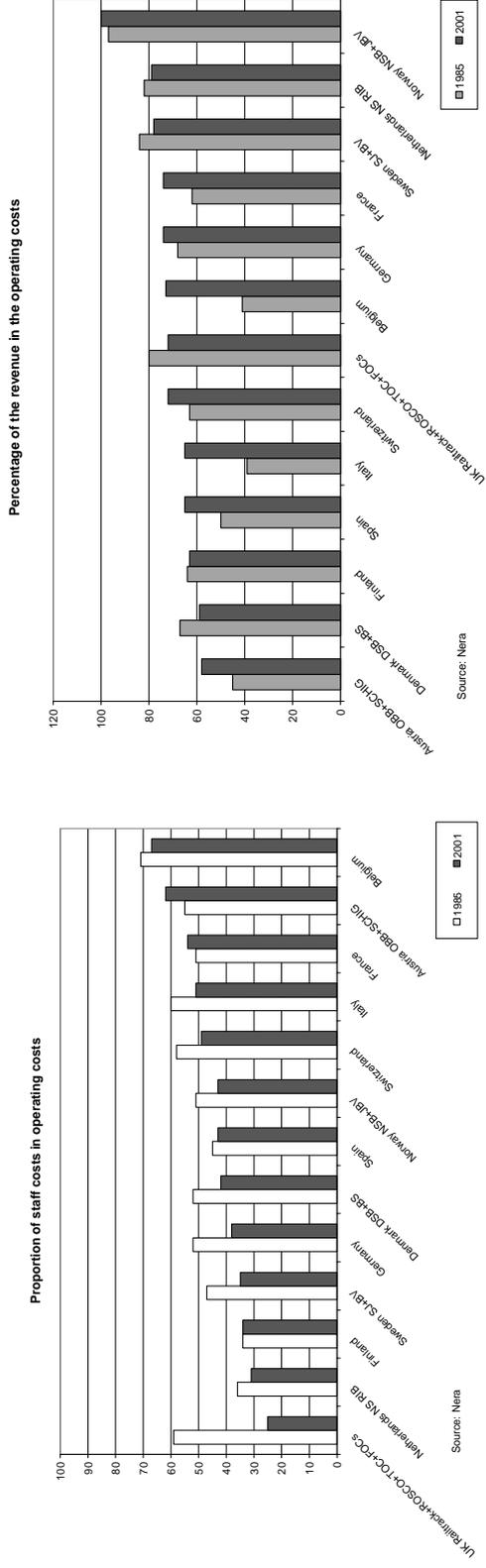


Figure 2. PRICES FOR POSTAL SERVICES

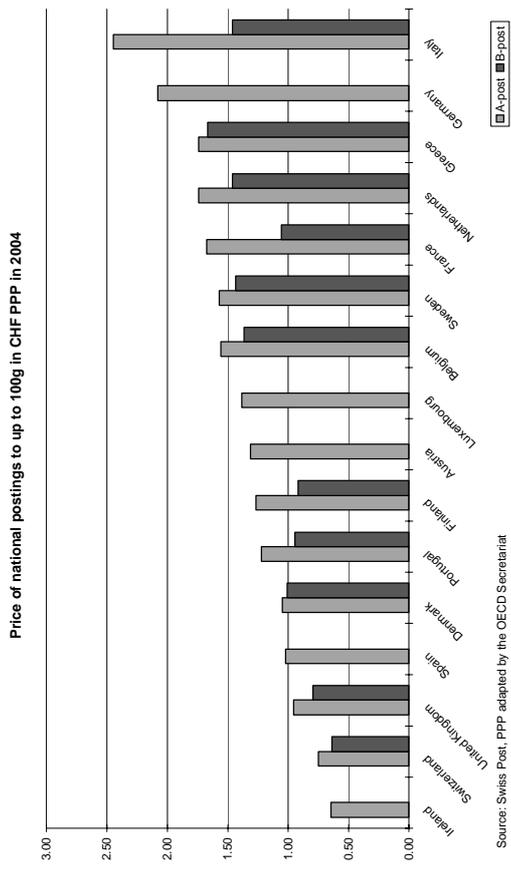
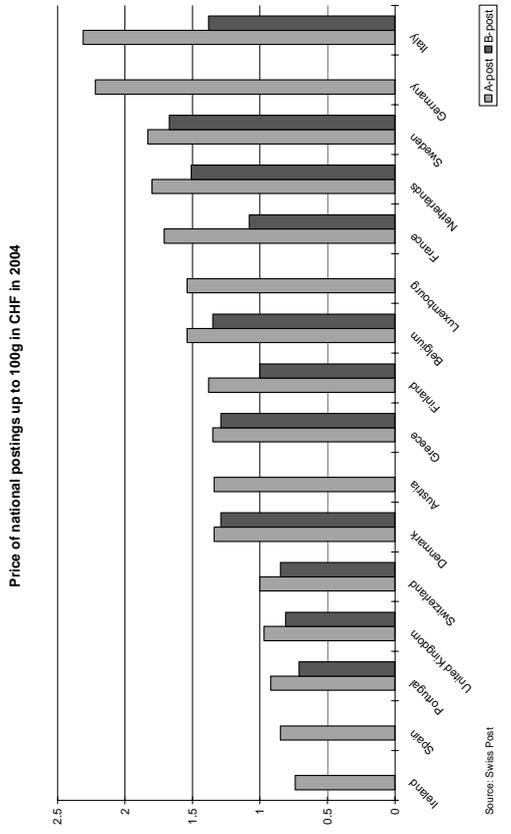


Figure 2. PRICES FOR POSTAL SERVICES (cont.)

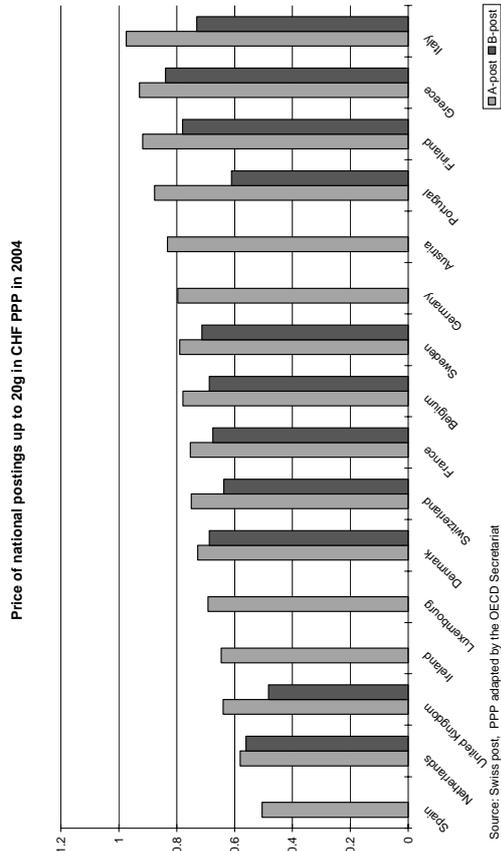
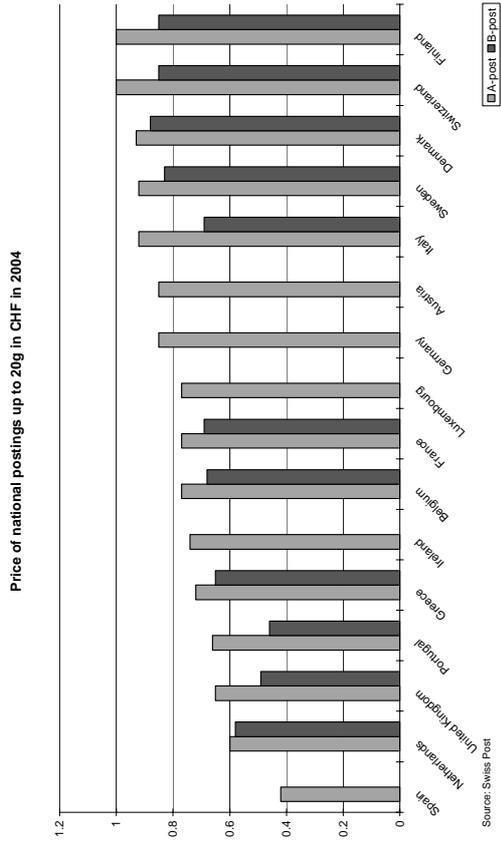


Figure 3. TELECOMMUNICATIONS REVENUE RATIOS

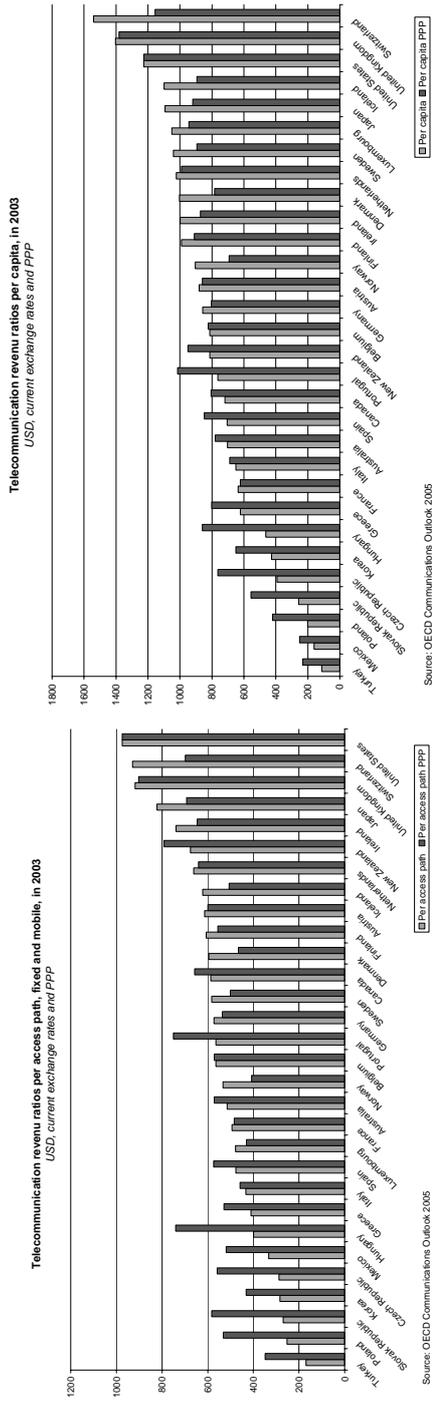


FIGURE 4. OECD COMPOSITE BASKET OF TELECOMMUNICATIONS CHARGES

