

REGIONALIZATION RAILWAY IN SWITZERLAND: PERFORMANCE WITHOUT COMPETITION. AN EXAMPLE FOR FRANCE?

Christian DESMARIS: PHD of economics, Institute of Political Studies of Lyon, University of Lyon, 14 av. Berthelot, 69365 Lyon, cedex 07, France. Tel: +33(0)37 283 841. Email: christian.desmaris@sciencespo-lyon.fr

ABSTRACT

The search for an optimal organization railway nagging question remains open (Nash, 2011; CER, 2012; Crozet and *alii.*, 2012). In a regulatory context renewed by the European Union, France has undertaken a cautious and gradual reform of its regional passenger transport system. In 2000, the legislature decided, after an experimental period, to generalize, to the regions, the transfer of the competence of the organization and the financing of the passenger regional public service. Today, in a context of deteriorated local public finances and with a renewed regulatory framework, largely driven by legal developments from the European Union, the French railway reform must be deepened. How to get more services with less public money?

This paper offers some suggestions from the review of the regional passenger reform undertaken by Switzerland, renowned country for its excellent rail system. And yet very few studies are available on this subject. Further to this reform, Switzerland has managed to obtain significant performance gains, both in terms of quality of service to passengers and in terms of costs borne by taxpayers. This performance is mainly due to the nature of the public governance, which connects the three main categories of actors: politicians, companies and users, but not to an extended competition in the passenger railway traffic. The Confederation has put new requirements for railway operators who, by dint of organizational innovations, have risen to the challenges of quality and financial constraints. The nature of contracting is essential, as well as the membership with passenger public transport system. Overall, it appears that the Swiss railway success has its own costs and that its performances depend on many factors. Most of them are very specific.

Keywords: Railway reform, Passenger Rail, Regulation, Swiss, France, Competition, Efficiency, Contracts, Governance, Regionalization.

1. INTRODUCTION

The regional passenger traffic in France has been strongly reshaped over the ten past years by the reform which, in 2002, introduced a regionalization of this service (regulation 2000-1208, December 13th 2000). Beyond several successes, mainly in terms of traffic (Haenel, 2008; Crozet, Desmaris, 2011), this reform appears today as unfulfilled, both in a financial and institutional bind (Cour des comptes, 2009; Assises du ferroviaire, 2011; CESE, 2012).

Nowadays many expect the opening to competition promised by the recent developments in the European legislation, first through the Public passenger transport services by rail and by road Regulation (EC1370/2007), and soon through the Fourth rail package, an answer to these impasses (Abraham, 2011; ECMT, 1998, 2001, 2007; Grignon, 2011). With the European regulation 1370/2007, the "regulated competition", also called competition "for the market", will become the explicit norm of market organization for local or regional passenger rail and road transportation. The Fourth railway package, proposed in late January 2013 by the European Commission, requires an obligation of competition for public service contracts referring to the passenger domestic market, from December 2019 (EC, COM2013/25).

In this context, this paper aims to highlight the choices made by and the results obtained by a neighbour country, Switzerland, well-known for the excellence of its rail system. In this country, the railway reforms and, in particular the railway regionalization, seem to have produced significant performance gains without having plunged the rail passenger into an open competition "for the market" and even less "on the market". The whole regional traffic is organized through concessions and is covered by public service contracts. The national long distance traffic is entirely organised through a concession in which public service obligations are imposed and are currently granted to SBB. Our belief is that the quality of the public governance is the main progress factor. What is this Helvetian rail governance design? Can it become a "model" for the next railway's reform in France?

In the next section, we'll describe the characteristics of the recent reforms that have profoundly rephrased the institutional environment of passenger rail transport in Switzerland. In the third section, we'll present an evaluation of this reform, focusing mainly on their impact on public finances and on travellers' welfare. Then in the next three sections, we'll discuss how to understand the dynamics in the regional and local traveller railway transport reform in Switzerland. We will show how its successes are liable to a specific governance. The latter has produced a "win-win" game for the government, as well as for the railway undertakings and for the travellers. This result doesn't owe much to the activation of competitive forces. In the seventh section, we will sum up the lessons of our analysis of the Swiss passengers railway reform and suggest some proposals, with the hope that policy makers know more on this subject and that they lead to a public debate in France.

2. A BRIEF HISTORY OF THE SWISS RAILWAY REFORM: GOVERNANCE VERSUS COMPETITION

The Swiss railway reform can be presented in three distinct steps: in 1996, the redesign of the Federal Railway Act (LCdF), that we will assimilate to a "regionalization" process, then in 1999, the "Railway Reform 1", more global, and since 2005, the "Railway Reform 2", still partly under discussion and implementation (CER, 2011).

First step in 1996: a regional traffic reform

The Swiss rail reform began with new principles to govern the regional passenger transport. Thus, in Switzerland, railway regionalization preceded and initiated the railway reforms, attesting the importance of regional transport policy in the public transport policy itself. This first reform, introduced by the LCdF of March 24th 1995 and entered into force on January 1st 1996, was based on three principles that had transformed the relationship between the railway undertakings and public authorities (Genoud, 2000).

The first most important measure, known as the “ordering principle”, means that public authorities will pay only for the services agreed in advance (for a specific line through a specific period of time and for specific services to be provided) and for the amount clearly defined by the contract. The amount for which a financial compensation will be asked is calculated from an estimation of the total costs, after deduction of the revenues generated by the service. Thus, this compensation corresponds only to the deficit planned by the transport company at the beginning of the period. Unplanned deficits will no longer be covered by the State. This contract, called “net cost”, incites the concessionaire to control better its costs and boosts its revenues, since its losses, if any, will not be compensated *ex post*. It means that the public transport undertakings will bear all the entrepreneurial risks of their activities.

The second novelty concerns the powers devolved to the cantonal authorities. Previously, the Confederation fixed the basic terms of the regional passenger offer with SBB, and assumed the financial burden. The cantons were only concerned in terms of schedules and were considered as “beggars” (Blumenthal, 1998). This reform set the cantons as full responsible for the order of regional transport services on their own territory. However, the decision-making autonomy of the cantonal authorities remained supervised by the Federal Office of Transport (FOT). The FOT is still in full charge of the traffic coordination on the national level. It also co-signs the agreements and pays directly the operators financial compensations specified in the contract.

The third reform innovation was the cancellation of SBB monopoly on regional railway. This new provision, undoubtedly the most innovative one, opened up the possibility of tendering for regional transport services. But for the moment, competition is non-existent in the local and regional railway transport. The cantonal authorities do not solicit the contest procedure and no new foreign supplier has introduced himself in this market (Finger, Genoud, 2004). For the regional road transport, tendering exists.

To be more appropriate, a new step of the Swiss reform will have to transform SBB into a company with a real autonomy management. This will be the principal matter of the second railway reform.

Second step in 1999: a new regulatory framework

A further step was achieved with the “Railway Reform 1” (LCdf, in march 20th 1998) effective on January 1st 1999. Its prior objective was to transpose the principles of the Directive 91/440/EEC into the Swiss law. First, this reform introduced a separation between the transport activity and the infrastructure management. Then, it allowed a free access to the rail network to any authorized operator (essential for competition in the market, already effective in the Swiss freight). Finally, it significantly renewed SBB organization and its business model.

An important part of this rail reform package was the having-off of SBB from the federal administration to establish it as a corporation with the special status of a public limited company. Therefore the company gained independence from the political and administrative power, although it remained entirely owned by the federal government. From then on, the

DESMARIS Christian - Regionalization railway in Switzerland: performance without competition. An example for France?

federal administration retained only a limited influence on SBB. The principal channel of influence has become a multi-annual contract defining the strategic guidelines of the firm and its medium-term objectives. It has also specified the services offered to the passenger and freight transport as well as to the rail infrastructure. In turn, it has provided public contributions to the railway undertaking. These last twelve years have shown that Swiss governments have largely honoured their financial commitments towards SBB, in accordance with their contracts. To allow this newly created company to operate without the burdens of the past, the Confederation has accepted to erase its debts. Together with this status change, SBB has also chosen a radical reorganization. Its activities have been divided into four distinct branches: Passenger Traffic, Cargo, Infrastructure and Real Estate. According to the European regulations, SBB have implemented accountability and also organizational separation, in order to offer a fair access to the rail services. Taken together, these elements have offered a new start to SBB, allowing them to confront and assert themselves on the European rail market, henceforth liberalized.

This SBB reform has had serious implications too in the regulation and, in particular, in the tasks entrusted to the Federal Office of Transport. The sovereignty tasks, in conflict with the new SBB status as a railway undertaking, have been transferred to the FOT.

Third step since 2005: a highly controversial and unfulfilled reform

In 2005, the government presented a further rail package to the Parliament, the "Railway Reform 2". Its main aim was to implement the content of the First and Second EU Railway Packages into the Swiss law. This legislation included several measures about various topics, such as how to finance the rail infrastructure, how to establish a regulatory authority and how to improve the safety in public transport. The Parliament rejected the bill and proposed to the government to split up the package into separate, more focused bills (CER, 2011).

The government therefore began to introduce the Railway Reform 2 in parts. The first part of this reform related to the railway system regulation, to the safety and to the ordering period in regional transport (from one to every two years). It entered in force in 2010.

The second part of the Railway Reform 2 was submitted for consultation in 2009 and was presented to the Parliament from 2011. Some texts are now adopted and sometimes entered into force, others are still under discussion.

We observe, with great interest, that three points of this new phase of the Swiss railway reform are particularly controversial: the importance of the tendering procedures in rail passenger transport; the rules for the financing of infrastructure and, in particular, those governing the respective share of the Confederation and the Cantons; and the choice of the optimal architecture for the infrastructure management (Litra, 2008). The Swiss rail system is vertically integrated, modelled on the Japanese or German network. In Switzerland, this vertical integration is generally considered as an essential condition of its exceptional performance (Meyer and *ali.*, CER, 2011).

Overall, the Swiss railway legislation developments show a pragmatic reform, step by step, which aims, at least, four objectives: first, to settle Switzerland in the new European railway landscape; then, to increase the efficiency and effectiveness of the transport activity, and to substantially boost the productivity and profitability as well as the quality and the amount of services offered; further, to face the challenges due to the constantly increasing mobility, therefore enlarging the rail share; and, finally to improve the ratio cost benefits of public subsidies.

If the principle of competition is introduced, both for the freight traffic and the international passenger traffic, we can observe how for the domestic passenger traffic, the "Swiss model", differs from the standard promoted by the European Commission. Unlike a "on the market"

DESMARIS Christian - Regionalization railway in Switzerland: performance without competition. An example for France?

liberalization and competition between operators, it is more a special governance between the public authorities and the railway companies, rather than an overhaul of the market structure on a wider competition.

This Swiss passenger railway reform is therefore specific on the institutional level. What were the results, both for taxpayers and travellers? Did we meet performance gains? Have the objectives been achieved?

3. AN UNEXPECTED RESULT: IMPROVING PERFORMANCES WITHOUT DIRECT COMPETITION

Two results in favour of the Swiss regional passenger railway reform should be enlightened: the increase of the efficiency in using public funds and the increase of the quality of service for the rail passengers.

More efficiency in using public funds

The most spectacular result of the Swiss railway reform, especially in comparison with France, is the inverse of the public compensation trend. In the 90s, the public cost of the regional traffic was hardly increasing: CHF 560 million in 1990, CHF 725 million in 1993 (all figures expressed in terms of present value). Since the reform, grants allowed by Confederation to the regional traffic have decreased to CHF 546 million in 2000 and CHF 507 million in 2002, as a minimum (based on SBB figures). After this time, these grants increased again, but very softly and in fact, the efficiency in using these public funds is becoming better and better. For one train-kilometre, the government had to pay CHF 10.2 in 2000, CHF 7.6 in 2006 (just like in 2010), only a little more in 2011 with CHF 7.7. Thus, calculated since 2000 (datas unavailable before), the improvement of the public railway regional efficiency has been spectacular, more than 25% (Table 1).

Table I – Grants allowed by the Confederation to the regional traffic in Switzerland

	2000	2002	2004	2006	2007	2008	2009	2010	2011
Million of Swiss Francs in present value	546	507	522	552	592	571	559	556	577
Index, base 100 : 2000	100.0	92.9	95.7	101.2	108.4	104.6	102.4	101.9	105.4
Swiss Francs by train-kilometre	10.19	8.89	8.11	7.59	7.71	8.07	7.90	7.60	7.70
Per train-kilometre - Index, base 100 en 2002	111.7	100.0	91.2	85.4	86.7	90.8	88.9	85.5	86.6

The comparison with France lights a great divergence of the public grants as regards to the railway efficiency. Since the reform, in 2002, the public contributions for the regional passenger railway services have continuously increased: €1,405 million in 2002 to €2,572 million in 2011, more than 83% over this period, in terms of present value. For one train-kilometre, the French government had to pay more and more: €9.45 in 2002, €11.9 in 2006, €15.2 in 2011 (based on the Nation Transport Accounts). Calculated since 2002, the deterioration of the public railway regional efficiency has been spectacular, more than 60% (Table 2).

DESMARIS Christian - Regionalization railway in Switzerland: performance without competition. An example for France?

Table 2 – Grants allowed by the government to the regional traffic in France

	2002	2004	2006	2007	2008	2009	2010	2011
Million € in present values	1 405	1 468	1 764	2 056	2 224	2 325	2 444	2 572
Index, base 100 : 2002	100.0	104.5	138.0	146.4	158.3	165.5	174.0	183.1
€ per train-kilometre	9.45	11.18	11.91	12.59	12.90	13.29	14.52	15.19
Per train-kilometre - Index, base 100 en 2002	100.0	118.3	126.0	133.2	136.5	140.6	153.7	160.8

Our first conclusion is that the government appears as the great winner (and ultimate the taxpayer) of the Swiss railway reform. It's not the case in France where all costs have increased dramatically.

Better quality services for the rail passengers

The second highly coveted railway reform result consists of significant improvements in the quality of the rail passenger service. Switzerland is traditionally well-known as the country of top-quality railway services (Bovy, 1992). The inter-modality reaches a great level between all parts of the public transport system (Bovy, 1994; UTP, 2008). The frequency of services is the highest in the world, even before Japan, with more than 94 trains by day and by line. In comparison, it's 47 in Germany, 40 in Great-Britain and only 30 in France (Litra, 2008). Passenger punctuality is still at a very high and exceptional level, almost 90% in 2011 (percentage of passengers who arrive on time or less than 3 minutes late), with a rate of successful connections around 97% (SBB, 2012a).

The railway reform has led to two others noticeable results: the increase of the commercial speed and the growth of the number of the train-kilometre.

Table 3 – Distances, travel times and speeds according to the micro-census in Switzerland

		1994	2000	2005	2010
Distances per day in km	Car	21.3	23.6	23.7	23.8
	Train	4.2	4.7	5.6	7.1
Travel times per day in minutes	Car	32.0	35.3	34.6	33.2
	Train	4.6	4.9	5.2	6.4
Speeds in km/hour	Car	37.0	35.5	36.2	38.6
	Train	49.8	53.5	60.9	61.4

Source: OFS (2012), Mobility in Switzerland - Results of the micro-census Mobility and Transports 2010, p. 89.

The efficiency of rail passenger transport has increased more than the road transport, in terms of time saving: the average speed of trains has substantially increased by more than 23%, from an average less than 50 km/hour in 1994 to 61 km/hour in 2010. Speed by car has remained much lower around 37-38 km/hour, and almost stable (Table 3). Most of this gain in speed was obtained between 1994 and 2005, consecutively to the implementation of the investment program and the modernization called "Rail 2000" (Carron, 2004). Owing to a better clocking (a quarter-hour on the busiest lines and half-hourly for the others) and to a

systematic link with the other modes of transport, Rail 2000 has considerably developed its own market appeal.

A collateral effect of this better rail performance has led to an increase of its demand in comparison with cars. While the average daily distance by train in 1994 was 4.2 km, it has gone up to 7.1 km in 2010, registering a rise of 67% (against 12% for cars). The 27% increase between 2005 and 2010 is particularly significant.

Last but not least, the development of the total SBB supply service, measured in train-kilometres has gone up by 35% over the period 2002-2011. It represents an annual average growth of 3.4%. Only for the regional transport, the supply has jumped up to 30% over the period, in other words an annual average of 3.0% (SBB, 2012a). Over the same period, the regional transport service in France has shown a slower growth of 20.6%, an increase of 2.1% on an annual average rate (Crozet, Desmaris, 2011). On this indicator, Switzerland is once again much better than France.

4. THE FIRST KEY OF SUCCESS: A RESPONSIBLE PUBLIC GOVERNANCE

First of all, the main reason of the Swiss railway reform success is due to a very specific and three-dimensional public governance of the whole railway system, which aims to promote a sustainable mobility system focused on rail.

A collective choice in favour of rail transport based on a long-term planning of a high infrastructure investment level

Switzerland is characterized by a collective choice asserted and renewed in favour of the rail transport which results in continuous significant investments (ECMT, 1999; Keseljevitch and *ali.*, 2001; Carron, 2004). After having given priority to road investments, transport policy in Switzerland has initiated a break in favour of rail investments from the 1990s. Since 1998, following extensive public debates and public consultations, it has been decided an enlarged program to modernize the rail network. This program amounting to over 30 billion Swiss Francs, to be spread over 20 years, is locally called "GPF" (major rail projects). It includes a deep modernization of the rail passenger infrastructure as the centre of the public network. It also includes new railway lines through the Alps, so that more freight can be carried all over Switzerland in respect of a better concern for the environment.

Two figures show the priority given to the Swiss rail. In 2009, the federal government has invested CHF 4.5 billion in the road against CHF 3.8 billion in the rail (Litra, 2011a). This collective choice in favour of rail has also impacted the level of rail investments per capita: CHF 82 in 1980, CHF 291 in 1990, CHF 405 in 2000, CHF 600 in 2005 and CHF 489 in 2009, an increase of nearly 6 times, in less than 30 years at current value. In comparison, in the French rail infrastructure, investments have recently increased, but significantly less than in Switzerland: per capita, they have risen from CHF 31.9 in 2000 to CHF 61.4 in 2009.

A larger involvement of the regional authorities in decision-making and funding

The Swiss railway reform includes a decentralization process that occurs in two ways: a full responsibility of the cantons in the decision-making services, including the consistency of supply, on the one hand, and in return a support of this service by local public finances. The

DESMARIS Christian - Regionalization railway in Switzerland: performance without competition. An example for France?

contract is freely negotiated between both parties, *i.e.* the canton and the railway undertaking. In practise, the railway undertaking submits to the canton an offer for public services. The price of the service to be paid is freely negotiated between the parties; but it must be approved by the national transport authorities (FOT).

Since 2004, the financial relations between the Confederation and the cantons have been governed by new rules, the new financial equalization (NFE). Regarding the financing of the regional passenger traffic, this new regulation aims to make it more difficult to access to the federal funds and to cap the Confederation involvement in financing the regional traffic. More precisely, the Confederation expects to drop its subsidies to an average of 50% (OIPAF, December 18th 1995 and OIRTV, November 11th 2009). At the end of 2010, the Federal Council proposal was to increase the minimum demand threshold for entitlement to compensation in field of regional passenger transport (art. 30 of the LTV, 2009), from 32 to 100 passengers per line and per day. Strongly debated, this proposal would have had the effect of cancelling 157 regional lines for 50 000 people and 200 communities. If cantons had wished these lines to keep running, it would have involved an additional charge of CHF 15 million to the cantons.

A really incentive and empowering SBB corporate governance

The deep transformation of relations between SBB and their shareholder, the Confederation, seems to be a key factor, not often spotlighted, of the success achieved by the railway reform. Two aspects of SBB governance by the Swiss government deserve to be highlighted: to set strategic objectives clear, precise and strictly controlled and to impose a significant financial constraint to the rail operator.

The first term of this corporate governance is the real strategic management of the national railway company by its shareholder. SBB activity is listed in a medium term contract with their owner, called "Convention relating to transport performances". Each Convention tightly expresses the overall political and strategic objectives for SBB, including the public services ordered by the Community for the upcoming four years. The convention includes, for the same period of time, a ceiling for the funds granted both for the infrastructure and for the operating services. The control process over the company by its supervisors is also clearly stipulated.

In Switzerland, the political authority, *i.e.* the Federal Council, rigorously defines the strategic objectives it assigns to SBB. Although jointly drawn up with the company, these objectives subscribe to the principle of a clear separation of powers between the owner and the operator required by the reform. They allow SBB to take freely appropriate business decisions. These goals involve a constant research of quality service and efficiency in the use of public funds. Customer satisfaction, punctuality and safety and, more generally, a high level of service must be accompanied by systematic productivity gains. Financial results are also expected to provide a healthy basis for the whole company and a balanced outcome in the medium term in each area.

The financial resources allocated by the Community are specifically identified. For the traffic services, especially orders for the regional passenger transport, resources are specified as part of the ordering process by an "Agreement on compensation". We have seen how this process has significantly contributed to the contractual cap compensatory contributions paid for SBB regional traffic. This device has a double merit. It is, on the one hand, especially incentive for the operator, who cannot rely on public funds in case his accounts drift. In return, it allows a financial medium-term visibility for the government. On the other hand, both are bound to work with this border-contract submitted to appraisal. After the reform, the long-distance traffic is supposed to be financially autonomous. The revenue generated by the

exclusive rights, granted by the government, must be sufficient to cover the operating costs of the long-distance railway undertaking.

SBB activities give rise to a close, transparent and regular watch exercised as well as by the management of the company and by its shareholder. We are impressed to see how serious the monthly and annual periodic reporting is, with different indicators based on some threshold values worth goals. SBB annual report is a model of its kind, accurate, comprehensive, argued and sincere. The second term of this corporate governance is the absolute financial constraint imposed to the Swiss Railways by the Confederation, forcing them in a constant search for efficiency. The willingness to stabilize the public funds allocated to the rail sector obviously affects the funding available for SBB (Table 4). The principle here is clearly to "do more with less".

Table 4 – Evolution of the maximum public contributions in favor of SBB

Agreements	Total amount (CHF million)	Annual average (CHF million)
1999-2002	5 840	1 460
2003-2007	6 020 (5 602) (a)	1 505 (1 400) (a)
2007-2010	5 880	1 470
2011-2012	3 322	1 661
2013-2016	6 624	1 656

Source: Litra (2011b), Doku ; Convention sur les prestations entre la Confédération et les CFF 2011-2012 et 2013-2016.

(a) After reduction due to savings programs.

Faced with this more and more demanding budgetary framework, because of the quasi-caps in nominal financial resources, SBB were required to drastic measures and systematic savings and all-round research of new recipes. This priority is reinforced by rising expectations from the Confederation in terms of missions and in terms of the highest quality for the infrastructure.

Finally, the high quality of the Swiss rail system governance probably takes into another factor specifically noted by E. Calthrop (CER 2005): the exceptional stability of the leaders in power, both in the Ministry of Transport Branch and in SBB.

5. THE SECOND KEY OF SUCCESS: AN HISTORICAL OPERATOR CAPABLE OF DEEP MANAGERIAL INNOVATIONS AND GREAT INCREASING PRODUCTIVITY

The Switzerland railway reforms quickly led to an upheaval in the nature and purpose of SBB management. Beyond the change in legal status, spurring on a greater autonomy and accountability, they have brought a strategic shift putting the productive efficiency research into the heart of business practices and orientating activity towards the customers (Genoud, 2000).

Further to the railway reforms, SBB strategy has been listed on both axes. The first axis is to increase the productive efficiency, through substantial labour productivity gains and through a systematic policy of controlling operational costs. The second axis promotes an all-out research of new incomes, both in the field of rail transport and the enhancement of their heritage assets.

DESMARIS Christian - Regionalization railway in Switzerland: performance without competition. An example for France?

First axe: researching and obtaining significant gains in labor productivity

SBB must grow while reducing their costs. Their quest for productive efficiency compels a permanent search for significant productivity gains. Measured by the apparent labour productivity, gains made by the company are spectacular: 92% since 1996, beginning of the railway reform, and 2009. This productive efficiency increase means a 5.1% rate per year on average between 1996 and 2009 (Table 5).

Unlike many other European railway companies, which have sharply reduced their staff (Desmaris, 2010), in Switzerland, this performance is mainly due to a huge increase in the passenger traffic (43%) and even more in the cargo traffic (+ 60%). To a lesser extent, the workforce decrease has only been of 22%.

Table 5 – Development of traffic, staff and productivity of SBB

	1996	1998	2000	2002	2004	2005	2009	Variation 1996-2009 in %
Passenger-kilometre in million (1)	11 662	12 485	12 835	12 232	12 375	13 830	16 676	+43.0
Tonne-kilometre in million (2)	7 323	8 738	10658	9 641	9 313	8 571	11 690	+59.6
Staff (3)	32 581	30 862	28 272	27 617	26 548	25 943	25 512	-21,7
Labor productivity in traffic unit million (4)	0.58	0.69	0.83	0.79	0.82	0.86	1.11	-
Productivity, base 100 in 1996	100.0	118.0	142.6	135.9	140.2	148.2	191.7	+91.7

Source: Our calculations from Historical statistics of railways 1970-2005, UIC, (2007) and International Statistics Railways 2009, UIC, (2010).

NB: (4) = (1) + (2) / (3). We assume that a passenger-kilometre is equivalent to a tonne-kilometre.

This upward trend in labor productivity is not the result of chance. It comes from a SBB systematic efficiency and productivity search, in order to meet funding constraints and objectives imposed by their shareholder, the Confederation. This trend is explained by a comprehensive, constantly reasserted and renewed control of operating costs. We will take several examples to illustrate the methodical reducing operational costs strategy.

As regards to the passenger transport, staff savings have been achieved in several ways. The end of the aboard ticket checks is a typical case (Blumenthal, 1998). Introduced in 1994 and widespread from June 1996, this measure has been accompanied by a new spot checking tickets system. It has also cancelled the possibility to buy a ticket on board but enlarged an insecurity feeling. To overcome these criticisms, SBB have generalized automata in stations and introduced an aboard railway police and mediation teams to ensure safety. Some small stations or stops have also been closed or had their hours reduced. More recently, to deal with the Confederation austerity plans which robbed SBB Regional Traffic Unit in some expected subsidies, SBB have adopted another response. They have developed a partnership strategy with locally well established private railway companies. Sales, maintenance, marketing and management duplications were reduced. This resulted in a productivity increase without damaging the service performance.

DESMARIS Christian - Regionalization railway in Switzerland: performance without competition. An example for France?

Nevertheless, many ended in criticizing this constant productivity gains and cost savings process. Some (Nahrath et alii., 2008) fear the effects on the rail system sustainability, both on a technical point of view (these lacks of investment limit the further traffic development and the reliability of the operation) and a social one (some specific categories of the population are disturbed by these recurring savings).

Second axe: increasing the railway company earnings

SBB managerial reforms, following the railway reform, orientate their activity towards their customers. This "win-win" strategy aims both to improve product and service quality and to increase the railway earnings. Good results have been achieved. The impact of this strategy is confirmed by reading SBB operating account over the past ten years, (SBB, 2012a). Thus, between 2002 and 2011, while the passenger traffic income has increased by 52%, SBB total government subsidies have grown by only 19.7%. The total general expenses for this period have registered an increase of 22.2% (with 17.6% of Personnel expenses), smaller than the incomes growth. As a result, the operating income (EBIT) has improved from CHF 194 million to CHF 530 million in current value.

Though this factor has been rather unnoticed, we can observe SBB have developed a particular active policy as regards to their real estate assets. This strategy to increase SBB revenues focuses on the valuation of their stations. SBB are indeed among the major players in the Swiss real estate market, with 800 stations, 3,500 buildings and 4,000 lands with a book value of about 4 billion Swiss Francs for a turnover of more than CHF 600 million in 2011.

Since 2003, SBB have dissociated their real estate assets from the Infrastructure, in order to create a standalone business unit within SBB. Managed as a particularly promising development centre, this new business unit provides an essential contribution both to integrated mobility and range of services for SBB customers and to the overall financial balance of the railway. Each year, the Real Estate profit helps in the payment of the interest and capital repayments of the loan granted by the Confederation in order to restructure SBB pension funds (CHF 182.5 million in 2011). This profit also finances the Infrastructure sector (more than CHF 150 million in 2011). It allows an even better decrease in the government contribution towards a better balanced activity. These internal financial transfers darken their real strategic function for SBB (Table 6).

Table 6 – SBB Group results by segment earnings (CHF million)

	2002	2003	2004	2005	2006	2008	2011
Passengers	113.7	93.4	152.2	78.6	193.7	276.8	213.9
Freight	-96.1	-33.1	-2.8	-165.7	-37.3	-29.9	-45.9
Infrastructure	106.5	0.3	43.7	17.4	91.8	30.4	72.4
<i>Real Estate</i>	-	-4.6	15.2	21.0	27.8	3.3	2.4 (a)
<i>Real Estate before internal balances</i>	-	152.1	184.6	219.6	229.8	291.6	182.5
Group-level units	-136.4	-34.3	-164.2	-123.2	-20.5	68.8	96
Eliminations	-	3.2	-1.4	5.6	4	-4.6	0
Total SBB	-12.0	24.9	42.6	-166.3	259.4	345.0	338.7

Source: Our calculations from Reports on the Group's financial position SBB, 2003, 2004, 2006, 2008, 2011.

In this challenging environment, SBB have proved to be enterprising, innovative and efficient. They have been able to control the evolution of their production costs, including spectacular labour productivity gains. They have also been able to boost their revenues both in the field of railway transport and by their active strategy to value their assets, based on the potential of the stations, as the Japanese railways companies did.

6. THE THIRD KEY OF SUCCESS: CONSUMERS AND CITIZENS INVOLVEMENT

The modal share of public transport, which has recorded a decline since the fifties, for the private cars only benefit, has known a turnaround since the beginning of the XXI century. Between 2000 and 2011, the modal share of public transport has increased from 21.1% to 25.4% from the total number of passengers transported in Switzerland. Much of this revival, two-thirds is explained by the gains in the rail market share, which has risen from 9.4% to 11% in number of passengers.

A constant strong growth in passenger traffic

First suggestive indication: the number of passengers carried by SBB rose from 245.3 million in 2002 to 356.6 million in 2011, an overall increase of 45.3% or an annual average increase of 4.2%. Expressed in terms of passenger-kilometres, the data confirm the positive effects of the reform on the Swiss rail attractiveness. As the nineties had experienced a very weak growth in the number of passenger-kilometers (1.5% per year on average), the mid two thousand marks a break. Since 2004, the number of passenger-kilometres has increased up to 5.3% per year, which represents a total growth of 43.4%. Another relevant index is the customer's loyalty. One in two adults is a SBB regular customer and has a subscription (usually half price or with a community tariff), their number has significantly increased, by 25.7% over the period, from about 2.2 million in 2002 to nearly 2.8 million in 2011. Over the same period the number of general subscriptions has almost doubled.

An ever growing satisfaction of travellers

Another indicator directly reflects the rail transport attractiveness: the measures of customer satisfaction are regularly monitored by SBB, from a panel of 20,000 users and under a multi-criteria methodology, listing precisely the information of travellers (in case of faults), the well-being, the staff (friendliness and competence) and the quality of delivery (schedules, punctuality, value for money).

The overall passenger satisfaction towards SBB has reached a particularly high level, for about three-quarters and has slightly followed an upward tendency since the reform. However, to maintain this satisfaction level is a real tough challenge, especially under a huge traffic growth and therefore under saturation peaks. This challenge becomes even harder because of the drastic savings imposed by the Confederation to the rail operator.

By and large, it is quite easy to explain the success of the Swiss passenger regional railway reform. It is due to the specific dynamics that link three actors: the whole politic system, the Confederation, the Cantons and the Parliament, together with all the public transport operators, SBB especially, and also with the population, either as travellers or as taxpayers.

7. IMPLICATIONS FOR THE FRENCH RAILWAY POLICY

We'll first conclude this paper with some lessons taught by the analysis of the Swiss railway regionalization. Then we'll submit some proposals towards the French policy makers and public

Three lessons from the Swiss railway reform

The analysis of the Swiss railway reforms brings three conclusions which specify the public policy framework of this particular governance.

First lesson: the rail transport high quality has a major financial, political and managerial cost for the Community.

First of all, the high quality railway services involves a significant financial effort from the taxpayers (Masse, 1991), with no equivalent anywhere else (Prud'homme, 2009). The rail quality production requires huge and continuous investments (ECMT, 1999). Switzerland has developed clever, sustainable and dedicated resources financing mechanisms. The Government contributions in the railway investments are a genuine priority and are widely supported by the Confederation budget. But today's context of scarce public money and slower economic growth make the funding issue a challenge, in Switzerland as everywhere else (Leuenberger, 2010).

It also means a political cost. To keep on this high level, the government must indulge in an everlasting and strong involvement as "major assembler" of the public transport system. In Switzerland, the public authorities (FOT) define and implement a transport policy. Based on a very original coordination of all modes and on very close programming objectives and expected actions of each player, this transport policy focuses on a greater environmental sustainability. The Swiss political system, combining a decentralized federalism and a strong democratic participation (via *referendum*), obviously contributes to significantly legitimize the public action and to give credibility to the reforms. The Swiss railway reform has deeply reshaped the institutional framework between all the actors. It has given the FOT, but also the cantonal transportation services, the key rule of a potential "network manager" (Genoud, 2000).

Finally, it also induces a managerial cost. As sole shareholder of the historical railway company, the different Swiss governments fully assume their role as owners. They compel SBB to precise and shared strategic objectives, through a service agreement, and to bear the corresponding price.

Second lesson: in Switzerland, the government has clearly chosen to improve the effectiveness and efficiency of the railway system. The public authorities impose an original governance, rather than the test of the market competition (Finger and Genoud, 2004). The Swiss railway reforms have imposed a "stress performance" to the incumbent rail operators, and more generally to all public transport companies, generalizing a contractual agreement. The regional passenger traffic, conceded by the cantons to SBB, is a typical example of this type of governance: non-competition for and on the market and nevertheless significant gains in efficiency and effectiveness. The introduction of incentive contracts, called "net cost", together with the government commitment to cap public operating subsidies, are both keys of those good results. Tendering is legally possible, but this method doesn't encounter any echo in the railway sector.

But competition is not totally missing from the governance of the Swiss regional passenger rail. Another form of competition plays a significant role in the performance of the rail system: the yardstick competition (Shleifer, 1985; Auriol, 2000; Bouf and Lévêque, 2006). Indeed, in

comparison with the French railway, the Swiss one is "plural". Alongside the national operator, SBB, there are many other railway companies. This pattern allows authorities (FOT) to benchmark and to maintain a healthy rivalry between networks.

Third lesson: public authorities, companies and customers are closely joined in one global triangular governance. The quality of this public governance, while essential, cannot stand on its own. To be successful, it must be accompanied by the incumbent's real managerial plasticity, but also by the customers' renewed commitment.

Three challenges for the French railway actors for more progress

To face the French regional rail transport future challenges, we will submit three proposals based on our analysis of the Swiss reform.

1. The first proposal simultaneously involves passengers, taxpayers and rail operators, among which SNCF first. The deal here is to aim for a much better quality of service (punctuality, information), even if it requires an extra financial contribution from the rail users themselves. Switzerland shows that satisfying its customers is an ongoing challenge. It must be the fundamental value of a rail company in charge of a public service. The Swiss railway also shows how much the quality of service has a high cost both for the communities and rail clients (Prud'homme, 2009).
2. The second proposal concerns both the regions as transport authorities and SNCF. The deal here is to swap a limited and graduated competition in return for an effort from SNCF, in terms of productivity and transparency. It also implies to rewrite the regulatory framework in order to put an end to the legal monopoly on SNCF regional traffic (and thus to conform the French law to the European regulation 1370/2007). It also modifies the nature of the contracts in order to obtain "net cost" contracts, more incentive and awarded through a tendering process. Switzerland shows that competition on and for the market is not a prerequisite to secure efficiency and effectiveness gains providing the historical rail operator is determined to achieve these results.
3. The third proposal impacts the government and SNCF / RFF. There will be no future for the French rail without increased investments (modernization and renewal) in the national rail network (ARF, 2011). This purpose also needs a thorough reform of the governance initiated and led by the State (Favin Lévêque, 2009). Here, the deal is to force SNCF to accept the establishment of a strong regulation providing the State commits itself in sustained investments on the network (Ministère des Transports, 2005). This new regulation is based on contractualized goals, productivity and service gains, regularly assessed. In this case, SNCF will hold the entire responsibility for an overall infrastructure management. The Swiss priority in investments for a high quality rail infrastructure (at the expense of the road) requires both a strong civic membership in terms of fiscal effort, and sustainable dynamic and dedicated resources. Switzerland reform illustrates how the State should take

its full place, especially as shareholder. In this purpose, the State should establish an incentive and empowering strategic management. For the infrastructure framework, Switzerland has made the choice of a vertical integration system as the main condition of its technical performance.

Is SNCF able to? Do Governments in France really want these results? How will both the regions as publics transport authorities and the clients-taxpayers as funders react?

REFERENCES

- Abraham C. (2011). L'ouverture à la concurrence du transport ferroviaire régional. Rapports et documents, CAS, La Documentation française, Paris.
- ARF (2011). Manifeste des régions sur le transport de voyageurs, ARF, Paris.
- Assises du ferroviaire : assemblée plénière du 15 décembre 2011, clôture des travaux des commissions, Rapport des 4 commissions, site du MEDDTL.
- Auriol E. (2000). La concurrence par comparaison : un point de vue normatif. *Revue Economique*, 51, 621-634.
- Blumenthal P. (1998). Trafic voyageurs régional (TRV) : évolution et perspectives aux CFF. *Rail international*, 4, 2-7.
- Bouf D., Lévêque J., (2006). Concurrence par comparaison pour les services d'infrastructure de transport " in ECMT, L'offre de transports : les limites de la (dé)réglementation. Table ronde 129, ECMT, 2006, Paris.
- Bovy P.H. (1992). Le modèle ferroviaire suisse : un modèle à suivre ?. *Les Cahiers scientifiques du transport*, 25, 47-66.
- Bovy P.H. (1994). L'expérience suisse de l'intermodalité. *Les Cahiers scientifiques du transport*, 365, 187-194.
- Carron N. (2004). La politique ferroviaire dans le cadre de la politique générale des transports en Suisse. *Rail International*, 17-29.
- CER (2005). *Reforming Europe's Railways – An assessment of progress*. Brussels.
- CER (2011). *New Reforming Railways – Learning from Experience*. Brussels.
- CER (2012). *EVES-Rail - Economic effects of Vertical Separation In the railway sector*. Full report. Amsterdam.
- CESE (2012). L'ouverture à la concurrence des services régionaux de voyageurs, Avis de MM. Jean-Marie Geveaux et Thierry Lepaon, 22 juin, JORF.
- CFF (2004). *Les CFF à plein régime*, CFF, Berne.
- Chauvineau J. (2003). Premier bilan de la régionalisation ferroviaire, Avis et Rapports n°2003-19, 20 octobre, Conseil Economique et Social, JO, Paris.
- Cour des comptes (2009). Le transfert aux régions du transport express régional (TER) : un bilan mitigé et des évolutions à poursuivre. Rapport public thématique, Documentation française, Paris.
- Crozet Y., Desmaris C. (2011). Le transport ferroviaire régional de voyageurs : un processus collectif d'apprentissage. *Recherche Transports Sécurité*, 27, 3.

DESMARIS Christian - Regionalization railway in Switzerland: performance without competition. An example for France?

- Crozet Y., Nash C., Preston J. (2012). Beyond the quiet life of a natural monopoly: Regulatory challenges ahead for Europe's rail sector. Policy paper. CERRE. Brussels.
- Desmaris (2010). Le transport ferroviaire régional de voyageurs en France : à la lumière de la théorie néo-institutionnaliste et des comptes de surplus, Thèse de doctorat de sciences économiques, Université de Lyon.
- EC, Directive 91/440 of the Council of 29 July 1991 on the development of the Community's railways, OJ L 23, 24/08/1991.
- EC, Regulation 1370/2007 of the European Parliament and of the Council of October 23th 2007 on public passenger transport services by rail and by road. OJ L 315/1, December 3th 2007.
- EC, COM2013/25. The fourth railway package – completing the single European railway area to foster european competitiveness and growth, Brussels.
- ECMT (1998). Rail restructuring in Europe. Paris, OECD.
- ECMT (1999). Investment in transport infrastructure 1985-1995. Paris, OECD.
- ECMT (2001). Railway reform: Regulations of Freight Transport Market. Paris, OECD.
- ECMT (2007). Railway accounts for effective regulation, Paris, OECD.
- Favin Lévêque J.-C. (2009). Concurrence ferroviaire. La France peut-elle gagner ?. Lignes de repères, Paris.
- Federal Law of 20 December 1957 relating to railways (LCdF). RS 742.101
- Federal Law of 24 march 1995 relating to railways. RS 742.101.
- Federal Law of 20 march 1998 on federal railway (LCdF). RS 742.31.
- Federal Law of 20 march 2009 relating to the passengers transport (LTV). RS 754.1.
- Finger M., Genoud C. (2004). Concurrence dans les chemins de fer : une chimère ?, Lausanne, EPFL, MIR.
- FOT (1998). La réforme de chemins de fer : les transports publics sur de nouvelles voies, Berne.
- Genoud C. (2000). La régionalisation des transports publics : implications de la nouvelle loi sur les chemins de fer à l'exemple des cantons de Berne, Zurich, Neuchâtel et Jura. Lausanne, Cahier 188, IDHEAP.
- Grignon F. (2011). Rapport sur les Conditions pour une expérimentation portant sur l'ouverture à la concurrence des services de transports ferroviaires régionaux de voyageurs, Documentation française, Paris.
- Haenel H. (2008). Écrire l'acte II de la révolution ferroviaire régionale. Rapport au Premier ministre, 26 octobre. Documentation française, Paris.
- Haenel H. (2011). Régionalisation ferroviaire : les clés d'un succès, Ville Rail et Transports.
- Keseljvic C., Meillasson S. (2001). Le ferroviaire en Suisse. Rail, 84, 14-22.
- Leuenberger M. (2010), « L'âme ferroviaire de la Suisse », Conférence des cadres des CFF du 24 juin, Bâle, DETEC
- Lévêque J., Séguret S. (2007). Les contributions publiques au financement des systèmes ferroviaires en France et en Allemagne. Transports, 444, 223-231.
- [Litra \(2008\). Le point sur la politique suisse des transports. Berne.](#)
- Litra (2011a). Les transports en chiffres, Edition 2011. Berne.
- Litra (2011b). Financement de l'exploitation et entretien du réseau ferroviaire. DOKU, 21 mars, Berne.

DESMARIS Christian - Regionalization railway in Switzerland: performance without competition. An example for France?

- Loi 82-1153 du 30 décembre 1982 d'orientation des transports intérieurs (LOTI), JORF du 31 décembre 1982.
- Loi 95-115 du 04 février 1995 portant sur l'aménagement et le développement du territoire (LOADT), JORF du 5 février 1995.
- Loi 97-135 du 13 février 1997 portant création de l'établissement public RFF en vue du renouveau du transport ferroviaire, JORF du 15 février 1997.
- Loi 2000-1208 du 13 décembre 2000 relative à la solidarité et au renouvellement urbains, dite loi SRU, JORF du 14 décembre 2000.
- Mariton H. (2004). La clarification des relations financière entre le système ferroviaire et ses partenaires publics : un train de réformes, Rapport d'information, 1725, Paris, Assemblée Nationale.
- Masse J.-P. (1991). Spécial Suisse. Le paradis a un prix. *Vie du Rail*, 2325, 4-20.
- Meillasson S. (2002). 100 ans de CFF. *Rail*, 95, pp. 16-33
- Meyer A., Meier B. (2011). Switzerland, pp. 127-135 in CER (2011), *New Reforming Railways – Learning from Experience*, Brussels.
- Ministère des Transports, (2005), *Audit sur l'état du réseau ferré national français*, ss. la dir. et la coordination des professeurs Robert Rivier et de Yves Putallaz, Ecole Polytechnique Fédérale de Lausanne.
- Nahrath S., Rieder M. and *alii*. (2008). Les impacts de la régionalisation et de la libéralisation sur la durabilité du secteur ferroviaire en Suisse. *Flux*, 72/73, 49-64.
- Nash C. (2011), *Developments in European railway policy*. *Network Industries Quaterly*, 13/1, 11-13.
- NERA (2004). *Study of the Financing and Public Budget Contributions to Railways*, Final report for the European Commission, January, London.
- OECD (2006a). *Regulatory reform in Switzerland - Regulatory authorities for air transport, railways, telecommunications and postal services*. Paris.
- OECD (2006b). *Switzerland: Seizing the Opportunities for Growth - OECD Country Reviews of Regulatory Reform*, Paris.
- OFS (2009). *Le Compte des transports – Année 2005*, OFS, Neuchâtel.
- OFS (2010). *Le Compte ferroviaire en Suisse 2008*, OFS, Berne.
- OFS (2011). *Transports publics – Séries chronologiques 1990,1995, 2000-2010*.
- OFS (2012). *La mobilité en Suisse - Résultats du micro-recensement mobilité et transports 2010*, Neuchâtel.
- Ordinance of 18 December 1995 relating to the indemnities, loans and financial aids granted according to the LCdF (OIPAF). RS 742.101.1.
- Ordinance of 11 November 2009 relating to the indemnities of the regional passengers traffics (OITRV). RS 745.16.
- Prud'homme R. (2009). *Du modèle ferroviaire suisse*. *Transports*, 457, 304-306.
- SBB (2003). *Report on the Group's financial position SBB in 2002*, SBB, Bern.
- SBB (2005). *Report on the Group's financial position SBB in 2004*, SBB, Bern.
- SBB (2009). *Report on the Group's financial position SBB in 2008*, SBB, Bern.
- SBB (2012a). *SBB: Facts and figures 2011*. SBB, Bern.
- SBB (2012b). *SBB: Annual and sustainability report 2011*. SBB, Bern.

DESMARIS Christian - Regionalization railway in Switzerland: performance without competition. An example for France?

- SETRA (2009). Le transport ferroviaire de voyageurs sur le réseau ferré national français – Exploration d'un système complexe", Synthèse des connaissances, Ministère de l'Ecologie, de l'Energie, du Développement Durable et de la Mer, septembre.
- Shleifer A. (1985). A theory of yardstick competition. *Rand Journal of Economics*, 20, 41-58.
- UIC (2007). Historical statistics of railways 1970-2005, Paris.
- UIC (2010). International Statistics Railways 2009, Paris.
- UTP (2008), Les transports publics en Suisse, Berne.