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Offering and prices of Swiss public transport in an international comparison

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Offering and prices of Swiss public transport in an international comparison

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Summary

Introduction

Prices of Swiss public transport are a regular subject of debate among the population, in the media and in the political sector. Topics include recurrent price rises, low profitability of the GA travelcard, possibilities and limitations of demand management by means of the price and increased user financing of public transport. During the debates, the question of public transport price levels in other countries is frequently posed. The present LITRA price comparison study 2016 provides answers. It is an update of the LITRA price comparison study published in 2013, which used a totally new comparison method for the first time.

Comparison of public transport prices in seven countries

Public transport fares in Switzerland, Germany, Austria, Italy, France, the Netherlands and Great Britain are compared with one another based on 14 typical everyday mobility situations (Table 1). Each situation corresponds to a specific combination of the parameters “mobility area”, “target segment” and “frequency”. Together, these mobility situations convey a representative picture of the price levels in the countries under comparison. The prices used for comparison are adjusted to reflect purchasing power.

	Mobility area													
	Travel within a major city			Travel within a metropolitan area					Travel nationwide			Travel between two major cities		
Travel situation	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Target segment														
Adults	●			●		●			●			●		●
Senior citizens		●					●			●				
Young persons (16–25 y)			●		●			●			●		●	
Frequency														
Daily	●	●	●	●	●							●	●	
Weekly						●	●	●						●
Twice a month									●	●	●			

Table 1: Mobility situations

The results (Figure 1) show that Swiss public transport prices for adults are around the average for all the countries under comparison. Adults travel a little more cheaply in the major cities (Figure 1).

Prices for senior citizens (not shown here) tend to lie in the upper third of prices. Senior citizens receive specially discounted fares in a number of the countries used for comparison. In Switzerland, they receive concessionary travelcards in some networks and in the GA travelcard range. With the half-fare travelcard, they can purchase single tickets at half-price. In this respect, they are treated the same as, but not any better than young people over 16 years of age and adults.

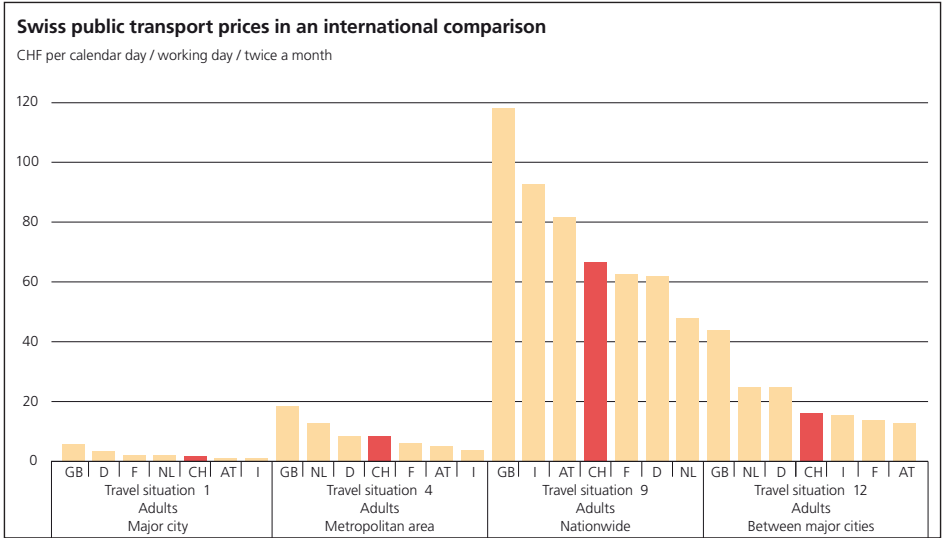


Figure 1: Swiss public transport prices in an international comparison

The prices for young people (not shown here) are generally mid-table. Between major cities, they travel remarkably cheaply. This is due to the attractively priced young person's GA travelcard.

Price comparison: 2016 versus 2013

In a comparison with six European countries covering all mobility situations, it appears that Switzerland's position has declined slightly in a few mobility situations since 2013. This is mainly due to selective price reductions (such as saver tickets) in the countries used for comparison (AT, NL). In terms of service quality, Switzerland remains in front by a wide margin. That is why the price-performance ratio of Swiss public transport still ranks as very good.

GA travelcard with very good price-performance ratio

Flat-rate tickets comparable to the Swiss GA travelcard are available in various European countries. They differ in terms of the services (free travel on all means of transport of a particular country, on all railways, on the state railway network, etc.) and in terms of prices. The price differences are considerable (Figure 2). Regardless of the services included, the issue which needs to be resolved is the annual travel distance from which the purchase of an annual travelcard is worthwhile in the various countries. In Switzerland, the purchase of a GA travelcard is worthwhile for daily commuters from a distance of 80 kilometres between their home address and place of work. In no other country is the break-even point so low. In comparison to other countries, the Swiss GA travelcard is cheap. Because it is valid on long-distance, regional and local services, it has by far the best price-performance ratio of all analysed flat-rate tickets valid nationwide.

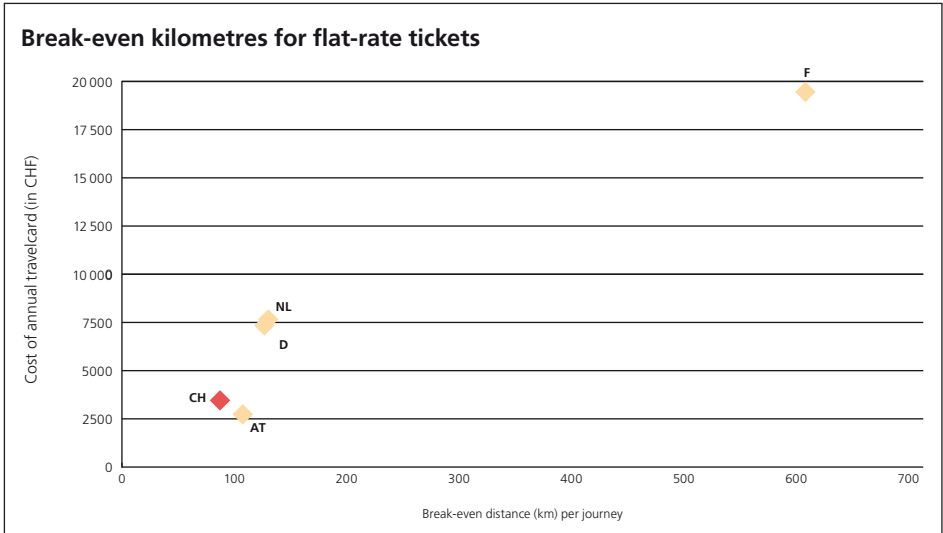


Figure 2: Break-even distances for flat-rate tickets (adjusted for purchasing power)

Break-even distances for annual travelcards – Interpretation aid: Based on the kilometre price for the Bern–Zurich line (point-to-point season ticket), a GA travel- card is worthwhile for commuters in Switzerland from a journey length of 80 kilometres at a purchase price of CHF 3,655. In the Netherlands, the annual travelcard costs CHF 7,815 (adjusted for purchasing power) and the break-even point, based on the kilometre price for the Amsterdam–Eindhoven line (point-to-point season ticket), is reached at 130 kilometres.

Price-performance ratio comparison

Public transport is not equally well developed in all the countries under comparison. A proper comparison therefore takes into account not only the prices but also the services received in return, in the form of price-performance ratios. This is investigated in the present study based on a journey across the entire country by train and bus (Zurich–Bivio). The Swiss prices (Figure 3) are the lowest, together with those in Austria. Because the quality of Swiss public transport is by far the highest, Swiss public transport offers the best price-performance ratio of all countries//Because Swiss public transport features the highest quality by far, its price-performance ratio beats those of the public transport systems in the other countries.

Saver tickets

Regarding ticket prices, the trend in public transport reflects the trend in aviation. Fixed prices are being increasingly replaced by flexible prices. The price differentiation is most pronounced in Great Britain. Depending on the travel start date and route, saver tickets cost up to 87% less than normal tickets. In the other countries, the reductions range between 30% and 60%. The availability of saver tickets has grown significantly since the last study. In Switzerland, the railways also offer saver tickets. In the Direct Transport system, saver tickets in the narrow sense are not yet available. The only beneficiaries here are passengers who use split ticketing. This calls for in-depth knowledge of the fare

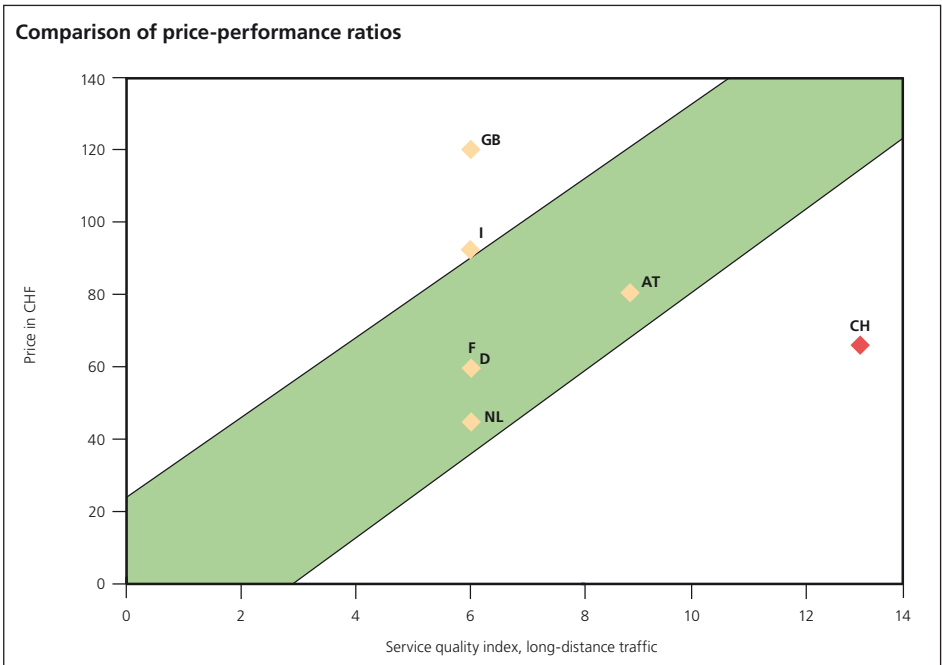


Figure 3: Comparison of price-performance ratios (adults, nationwide travel)

Ratio of price (adjusted for purchasing power) and service quality for nationwide travel (Zurich–Bivio, 132 km). Interpretation aid: For a cross-country journey over a distance of 132 km, the price (adjusted for purchasing power) is CHF 82 in Austria and just under CHF 68 in Switzerland. Travellers not only pay an approx. 15% lower price in Switzerland but also get significantly higher quality (13 points) than in Austria (9 points).

structure. Alternatively, the Direct Transport system regularly offers discounted tickets as part of special campaigns (e.g. Duo day travelpass). As prices for saver tickets depend on the time of booking and the occupancy rate, price comparisons are becoming more and more difficult.

General price trend

Since 2010, public transport prices in Switzerland have increased by 18% in real terms. Only Great Britain has experienced a similarly high increase in percentage terms.

Conclusion

The price comparison shows that public transport in Switzerland is not, as is often alleged, more expensive than abroad. On the contrary, if prices are compared after adjusting them for purchasing power, which is the correct approach from the economic perspective, the price level in Switzerland is around the average for the countries used for comparison. In other words: measured against their overall consumer spending, Swiss private household expenditure on public transport is similar to the average in the countries used for comparison.

1. Introduction

The present study examines and compares the public transport prices in seven European countries for 14 different mobility situations. The study was conducted on behalf of LITRA and is an update of the LITRA price comparison study published in 2013.

As in 2013, the prices for 14 different journeys in seven European countries are compared with one another. Because the ticket choice is structured totally differently from country to country, it is not possible to simply compare the prices of similar tickets. Rather, the cheapest ticket for the journey concerned in each country must be identified first (e.g. for travel between two major cities). The prices of the tickets identified can then be compared with one another in a second step. The picture is complemented with a comparison of service quality in the various countries.

2. Study design

In the present study, the public transport prices in Switzerland are compared with those in six European countries. The situation is evaluated both bottom-up and top-down. This enables a differentiated statement to be made on the price level in Swiss public transport.

2.1. BOTTOM-UP COMPARISONS

The mobility situations investigated

The public transport ticket prices are compared with one another based on 14 typical everyday mobility situations. Each situation reflects a combination of dimensions: mobility area, target segment and frequency. All situations convey a representative picture of the price level in the countries under comparison.

Travel situation	Mobility area													
	Travel within a major city			Travel within a metropolitan area				Travel nationwide			Travel between two major cities			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Target segment														
Adults	●			●		●			●			●		●
Senior citizens		●					●			●				
Young persons (16–25 y)			●		●			●			●		●	
Frequency														
Daily	●	●	●	●	●							●	●	
Weekly						●	●	●						●
Twice a month									●	●	●			

Table 2: Mobility situations

› *Travel within a major city:*

Price per calendar day that annual travelcard holders have to pay, after conversion, for the daily use of public transport within a (major) city. This situation is typically encountered among people who live in a city and use public transport on a daily basis, whether for the journey to work or to school, for daily shopping or to go out.

› *Travel within a metropolitan area:*

Price per working day that annual travelcard holders have to pay, after conversion, for their daily journey to work/school, commuting from a suburban community to the core city and back.

Price for the return journey that passengers have to pay, after conversion, if they travel once a week over the course of a year from a suburban community into the city, whether for leisure, shopping or educational reasons.

› *Travel nationwide:*

Price for the return journey that passengers have to pay if they travel once a fortnight over the course of a year from the city to the countryside at the weekend and use trains and buses to do so.

› *Travel between two major cities:*

Price per working day that annual travelcard holders have to pay, after conversion, for the daily journey to work/school between two cities.

Price for the return journey that businesspeople have to pay if they travel once a week over the course of a year to another city.

Analysed fares

The ticket prices are always based on a return journey in 2nd class. Because in many countries the ticket prices depend on the time of booking and travel, the following assumptions were made when checking the prices:

- › *Travel nationwide:* ticket price for a journey on the coming Sunday (+ 3 days ahead) with an outward journey at 8.00–9.00 and a return journey at 18.00–19.00.
- › *Travel between two major cities:* ticket price for the following day (working day), with an outward journey at 7.00–8.00 and a return journey at 17.00–18.00.

The comparison is based on the cheapest available offer for the mobility situation concerned (single ticket or travelcard). Discount cards are taken into consideration insofar as their purchase is worthwhile for the mobility situation concerned. Restricted-validity special offers are only taken into account in order to determine the discounts granted for travel to the countryside (leisure). Also excluded are offers available only to persons with incomes below a certain threshold. For adults without a discount card, the analysis also covers:

- › the class differential between 1st and 2nd class for the mobility situation *Travel between two major cities*,
- › the availability of saver tickets for the mobility situation *Travel nationwide*.

The determination of ticket prices is based on the prices published on transport company and network websites and on supplementary direct enquiries to the transport company contact centres (May 2016). A detailed list of the websites used is contained in the annex. The study assumes that passengers are familiar with the transport companies' offering and know about attractive offers.

Analysed target segments

Analysed in the study are ticket prices for adults, senior citizens and young people. Adults pay the normal price for a ticket, while senior citizens and young people are typical target segments that receive a discount on the normal price. Senior citizens are considered to be people in the age groups 60+ or 65+, depending on the country. The age-based definition of young people varies considerably in the countries investigated. For the purposes of this study, the emphasis is placed on offers for students between 18 and 25 years of age.

Countries under comparison

Public transport prices in Switzerland are compared with those in six European countries: Germany, Austria, Italy, France, the Netherlands and Great Britain. Table 3 shows the journeys for which the ticket prices were determined and compared in the areas concerned.

Mobility area				
Country	Mobility area			
	Travel within a major city	Travel within a metropolitan area	Travel nationwide	Travel between two major cities
CH	Zurich	Zurich–Zug (24 km)	Zurich–Bivio (132 km)	Zurich–Bern (96 km)
	Lausanne	Lausanne–Nyon (34 km)		
D	Berlin	Berlin–Potsdam (25 km)	Stuttgart–Bad Wiessee am Tegernsee (222 km)	Hamburg–Bremen (95 km)
	Frankfurt	Frankfurt–Mainz (31 km)		
AT	Vienna	Vienna–Wiener Neustadt (46 km)	Innsbruck–Lech am Arlberg (94 km)	Salzburg–Linz (108 km)
	Innsbruck	Innsbruck–Imst (49 km)		
I	Rome	Rome–Latina (58 km)	Milan–Kaltner in South Tyrol (192 km)	Rome–Florence (23 km)
	Milan	Milan–Saronno (21 km)		
F	Paris	Paris–Rambouillet (45 km)	Bordeaux–Fouras near Rochefort (134 km)	Paris–Lyon (392 km)
	Marseille	Marseille–Aix-en-Provence (25 km)		
NL	Amsterdam	Amsterdam–Haarlem (17 km)	Amsterdam–Suyderoogh (144 km)	Amsterdam–Eindhoven (112 km)
	Rotterdam	Rotterdam–The Hague (20 km)		
GB	London	London–Watford Junction (26 km)	London–Ilfracombe (279 km)	London–Manchester (263 km)
	Birmingham	Birmingham–Dudley (13 km)		

Table 3: Investigated relationships

Kilometre standardisation

The distances differ depending on the mobility situation. In order to be able to compare the ticket prices, however, they are converted pro rata to the length of the corresponding line in Switzerland. The fare for the journey from Stuttgart to Lake Tegernsee, for example, is divided by its distance (222 km) and then multiplied by the distance for the journey from Zurich to Bivio (132 km).

No attempt was made to standardise the ticket prices for the mobility situation Travel within a major city. Because the cities in the countries investigated differ in size, the prices for the respective city zones are compared with one another, e.g. Zone 110 for the city of Zurich.

The ticket prices for mobility situations for which the annual travelcard is the cheapest offer, also remain unstandardised. Here, the annual travelcard price is converted to the relevant day of use.

Adjustment for purchasing power

Because simple exchange rate conversions do not take into account the different price levels in the countries under comparison, the ticket prices are adjusted for purchasing power. The recently published OECD purchasing power adjustment index 2015 (Purchasing Power Parities for Actual Individual Consumption) is used as the reference factor for the conversion (Table 4). The PPP index compensates for the different purchasing power of currencies by eliminating the differences in price levels between the countries. The OECD index used is adjusted for currency effects (average exchange rates 2015 of the International Monetary Fund) and portrayed in the relevant national currency per US dollar.

OECD Purchasing Power Parities for Actual Individual Consumption 2015							
Country	Switzerland	Germany	Austria	Italy	France	The Netherlands	Grat Britain
PPP-Index	1.45	0.79	0.86	0.79	0.83	0.88	0.76

Table 4: OECD Purchasing Power Parities for Actual Individual Consumption (2015)

Table INFRAS. Source: OECD 2016 in collaboration with EUROSTAT and Swiss Federal Statistical Office

The OECD purchasing power index covers all household consumer spending and the proportion of government expenditure for state services for the individual households (schooling, health, accommodation, education, etc.). Collective government expenditure (police, environmental protection, national defence, etc.) is excluded.

Example: Ticket Prices adjusted for purchasing Power
Adjustment of purchasing power based on the PPP index:
– PPP index Switzerland: 1.45 CHF/USD
– PPP index Germany: 0.79 EUR/USD
– Adjustment multiplier (standardisation to CH): $1.45\text{CHF/USD} \div 0.79\text{EUR/USD} = 1.83\text{CHF/EUR}$
→ $1\text{ EUR} \times 1.83\text{CHF/EUR} = 1.83\text{ CHF ticket price}$

Explanation: A person in Switzerland paying CHF 1.83 for a ticket, is spending the same proportion of his overall consumption on public transport as a passenger in Germany paying a ticket price of EUR 1.00.

Comparison of price-performance ratios

A weakness of pure price comparisons is their failure to consider the services received for the price. While the qualities of transport offerings within major European cities are at a similar level, they differ substantially in rural areas for example. We take the services into account in the bottom-up analysis by creating an index for service quality. It consists of the following components: offer density, travel speed, degree of public transport networking and punctuality. The results are depicted graphically in a portfolio.

2.2. TOP-DOWN COMPARISON

To complement the bottom-up comparison, in the top-down comparison we show the real trend in public transport prices in the different countries. This is based on the inflation-adjusted household expenditure on public transport in the relevant national shopping baskets.

2.3. PRICE COMPARISONS ARE FRAUGHT WITH UNCERTAINTY

The tariffs are structured according to distance/relationship, depending on the country; the discounts granted and the services included in the tickets differ considerably between the countries under comparison. We have taken this into account by applying various correction factors. All the same, the price comparisons are fraught with a measure of uncertainty. This is the case, in particular, because it was only possible to examine the prices for a small number of relationships within the framework of this study.

3. Results

3.1. BOTTOM-UP COMPARISONS

This section shows the prices, adjusted for purchasing power, for the selected 14 mobility situations on a country-by-country basis.

3.1.1. Travel within a major city

In the cities, the Swiss travel comparatively cheaply. Only Austria offers cheaper tickets, across all target groups. In all countries, the cheapest ticket is an annual travelcard (zone tariff system).

The prices of tickets for senior citizens are mid-table. Of the Swiss cities examined, only Lausanne offers concessionary senior citizen tickets. In many foreign cities, too, senior citizens can obtain travelcards at special tariffs. However, they are sometimes subject to conditions (low income) and thus not available to all senior citizens. Many transport companies or state institutions also offer young people concessionary travelcards, often in the form of a semester ticket for students. Swiss transport companies do not offer any semester tickets, but generally have attractive special tariffs for young people under 26 years of age instead.

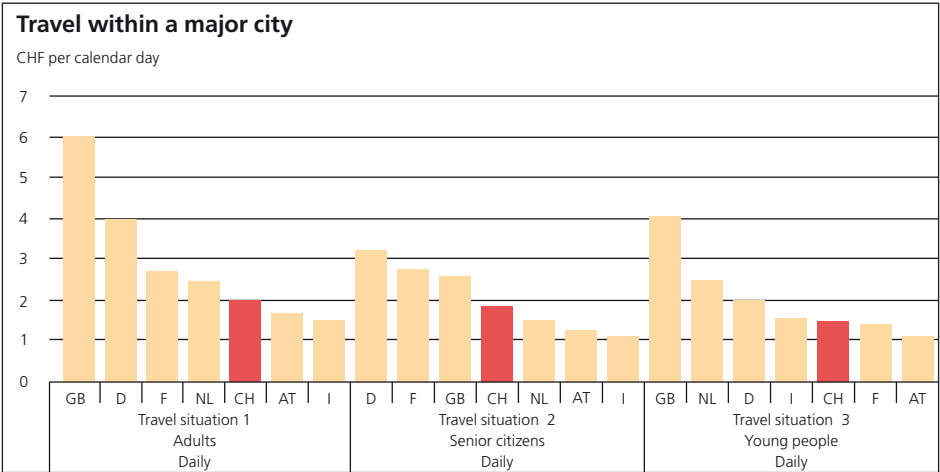


Figure 4: Travel within a major city (adjusted for purchasing power)

Remarks

- › In all countries, prices for travel within a major city refer to an annual travelcard (price per calendar day) for the central zone of the city. A travelcard allows unrestricted travel every day in the inner city. This is the cheapest ticket for passengers who travel every day. Cheaper off-peak travelcards are available in some cities, including Frankfurt, Berlin and Zurich (for the entire Zurich public transport area).

- › Austria:
 - › In 2015, a tariff reform was carried out in Innsbruck. Subsequently, the price of an annual travelcard fell by 30% to EUR 330.
- › France/Italy:
 - › In France and Italy, senior citizens and young people enjoy concessionary tariffs in certain cases, provided they meet specific criteria (e.g. low income). These offers were not taken into consideration.
 - › Milan offers reduced-price travelcards with a time restriction (valid after 9.30) for senior citizens. In view of the time restriction, this travelcard was excluded from the comparison.
- › The Netherlands:
 - › In the Netherlands, student tickets are issued as student loans. If the course of study lasts less than ten years, the loan becomes null and void and need not be repaid. The tariffs are individually awarded and provide entitlement to free use of public transport during the week or at the weekend, at the user's discretion.
- › Great Britain:
 - › In London and Birmingham, prices vary according to the time of day (peak and off-peak tariffs). There is a price cap on single tickets in Great Britain (Oyster card, contactless).
 - › Senior citizens living in London are entitled to a 60+ London card. It provides free travel in London for a one-off price of £10 (included in the comparison).
 - › In Birmingham, senior citizens travel free by bus, train or Metro in off-peak periods (older person pass).

Tickets compared for travel within a major city							
	CH	D	AT	I	F	NL	GB
Adults	Annual travelcard Zone tariff	Annual travelcard Zone tariff	Annual travelcard Zone tariff	Annual travelcard Zone tariff	Annual travelcard Zone tariff	Annual travelcard Zone tariff	Annual travelcard Zone tariff
Senior citizens	Annual travelcard Zone tariff	Annual travelcard Zone tariff	Annual travelcard Zone tariff	Annual travelcard Zone tariff	Annual travelcard Zone tariff	Annual travelcard Zone tariff	Annual travelcard Zone tariff
Young people	Annual travelcard Zone tariff	Annual travelcard Zone tariff	Annual travelcard Zone tariff	Annual travelcard Zone tariff	Annual travelcard Zone tariff	Annual travelcard Zone tariff	Annual travelcard Zone tariff

Table 5: Tickets compared for travel within a major city

3.1.2. Travel within a metropolitan area

In Switzerland, prices for travel within a metropolitan area are mid-table, across all target segments.

Of those passengers who travel occasionally (weekly) within a metropolitan area, senior citizens and young people pay higher prices than in the majority of other countries. Only the Netherlands and Great Britain have higher prices. A reason for this is special discounts benefitting senior citizens and young people in other countries.

For daily travellers, the prices are compared on the basis of annual travelcards everywhere. On the other hand, occasional travellers journey most cheaply with a different ticket (Table 6), depending on the country.

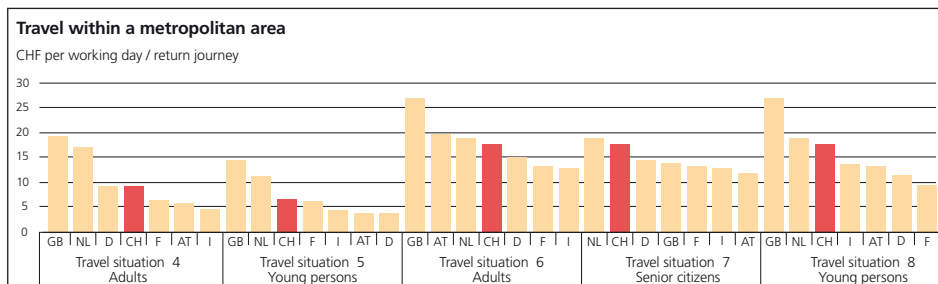


Figure 5: Travel within a metropolitan area (adjusted for purchasing power)

Remarks

- › The mobility situation Travel within a metropolitan area is based on the reference route Zug–Zurich with a length of 24 km.
- › The ticket prices for daily travellers correspond to travelcard prices (zone tariff). For persons who travel occasionally within a metropolitan area, single tickets are normally the cheapest option (Table 6).
- › Austria:
 - › In the VOR (eastern-region public transport network) network area, the existing zone tariff is being replaced by a new route tariff on 6 July 2016 (single and season tickets for the Vienna central zone are excluded).
 - › The Tyrol public transport network (VVT) substantially reduced the semester tickets in 2014. The new tickets are up to 72% cheaper!
- › Germany, the Netherlands, Great Britain: off-peak travellers enjoy reduced travelcard and single ticket prices.
- › France:
 - › In Marseille, the ZOU! travelcard, which combines the tariffs of a number of regional transport companies, was included.
 - › The ZOU! travelcard is available for students at a concessionary tariff and is issued depending on the place of residence and study (not included).
- › London:
 - › The 60+ London card is also valid for the Greater London Area. Senior citizens living in a London district are entitled to this travelcard (included in the comparison).

3.1.3. Travel nationwide

Swiss ticket prices for leisure travel nationwide by train and bus are mid-table. Adults, senior citizens and young people only pay less for their journeys in France, Germany and the Netherlands. In the Netherlands, Nederlandse Spoorwegen (NS) offers the Weekend Vrij travelcard, with which travellers can use the railway very cheaply at the weekend. In the majority of countries, senior citizens and young people can obtain discount cards giving them a price advantage over adults. In Switzerland, all three target groups enjoy the same discount with the half-fare travelcard.

The price differences between the individual offers are sometimes very large. Among other things, this is due to the fact that some countries have a marked price differentiation in

that they make the price heavily dependent on the time of booking and travel. The earlier travellers buy their ticket and the lower the occupancy rate of the trains, the cheaper the ticket prices are.

Tickets compared for travel within a metropolitan area							
	CH	D	AT	I	F	NL	GB
Daily							
Adults	Annual travelcard Zone tariff	Annual travelcard Zone tariff	Annual travelcard Zone tariff	Annual travelcard Zone tariff	Annual travelcard Zone tariff	Annual travel- card Zone tariff	Annual travelcard Zone tariff
Young people	Annual travelcard Zone tariff	Annual travelcard Zone tariff	Annual travelcard Zone tariff	Annual travelcard Zone tariff	Annual travelcard Zone tariff	Annual travel- card Zone tariff	Annual travelcard Zone tariff
Weekly							
Adults	Single ticket with half-fare travelcard	Berlin: Single ticket Frankfurt: Single ticket with railcard	Single ticket	Rome: Annual travelcard zone tariff Milan: Single ticket	Paris: Annual travelcard zone tariff Marseille: Single ticket with ZOU! ¹	Single ticket	Single ticket
Senior citizens	Single ticket with half-fare travelcard	Berlin: Single ticket Frankfurt: Single ticket with railcard	Vienna: Single ticket Innsbruck: Annual travelcard zone tariff	Rome: Annual travelcard zone tariff Milan: Single ticket	Paris: Annual travelcard zone tariff Marseille: Single ticket with ZOU!	Single ticket	London: Annual travelcard zone tariff Birmingham: Single ticket
Young people	Single ticket with half-fare travelcard	Berlin: Single ticket Frankfurt: Annual travelcard zone tariff	Vienna: Single ticket Innsbruck: Annual travelcard zone tariff	Rome: Annual travelcard zone tariff Mailand: EB	Paris: Annual travelcard zone tariff Marseille: Single ticket with ZOU!	Single ticket	Single ticket

Table 6: Travel nationwide (adjusted for purchasing power)

¹ ZOU! is a travelcard, that is to say a discount card that offers occasional travellers in the Marseille/Aix-en-Provence region a discount on single tickets (also available as an annual travelcard for frequent travellers).

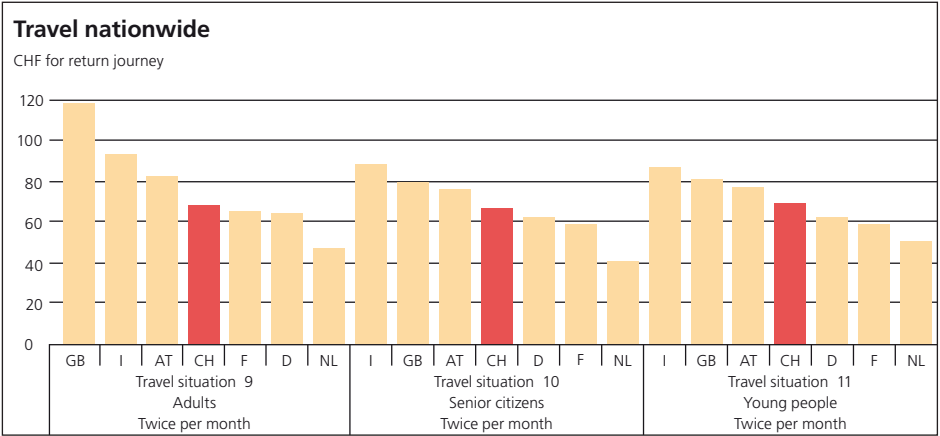


Figure 6: Travel nationwide (adjusted for purchasing power)

In Switzerland, thanks to the Direct Transport system, it is possible to travel right across the country with a single ticket, using train, bus, tram and ship in the process. Travellers in the countries used for comparison generally have to purchase a separate ticket for each means of transport used (in some cases via the websites of the individual transport companies). An exception to this is Austria. Recently, the Austrian Federal Railways have enabled passengers to purchase through tickets.



Figure 7: Travel routes nationwide

Selected routes for the mobility situation *Travel nationwide*
Map source: Google Maps

Remarks

- › The mobility situation *Travel nationwide* is based on the reference route Zurich–Bivio, 132 km (linear distance). In each case, the prices refer to a journey by train and bus. When purchasing a ticket, it is necessary to combine several section tickets or section and network tickets.
- › Discount cards taken into consideration for *Travel nationwide*:
 - › Switzerland: Half-fare travelcard
 - › Italy: Green Card, Silver Card
 - › Austria: Vorteilskarte
 - › Germany: BahnCard 25, BahnCard 50
 - › France: Carte Jeune, Carte Senior+
 - › The Netherlands: Weekend Vrij
 - › Great Britain: Senior Railcard, 16–25 Railcard

- › Switzerland:
 - › For travellers who journey during the week (Monday to Friday) and not until after 9.00, there is the 9 o'clock travelpass (only with half-fare travelcard), that enables them to use public transport for CHF 58 (almost) everywhere in Switzerland.
 - › The discounted day travelpasses made available by many communes for CHF 45 (2nd class), for example, were not taken into account.
- › Great Britain:
 - › Special travelcards that allow an unlimited number of journeys within a specific zone and period are available in some regions (GB Rail Rover).
 - › Due to the flexible prices, tickets with no specific start time (Anytime) cost up to five times as much as tickets for off-peak times.

Tickets compared for travel within a metropolitan area							
	CH	D	AT	I	F	NL	GB
Adults	Single ticket* with half-fare travelcard	Single ticket with BahnCard	Single ticket with Vorteilskarte	Single ticket	Single ticket	Weekend Vrij and Single ticket	Single ticket (Advanced)
Senior citizens	Single ticket* with half-fare travelcard	Single ticket with BahnCard	Single ticket with Vorteilskarte	Single ticket with Silver Card	Single ticket with Carte SENIOR+	Weekend Vrij and Single ticket	Single ticket (Advanced) Senior Railcard
Young people	Single ticket* with half-fare travelcard	Single ticket with BahnCard	Single ticket with Vorteilskarte	Single ticket with Green Card	Single ticket with Carte JEUNE	Weekend Vrij and Single ticket	Single ticket (Advanced) 16–25 Railcard

Table 7: Tickets compared for travel within a metropolitan area

*Ticket type per target segment / *Saver ticket on part of the route*

3.1.4. Travel between two major cities

Travel between two major cities in Switzerland is comparatively cheap for adults and especially so for young people. Although adults travelling daily pay the fourth-highest fares, the price differences to the cheaper countries are modest. The offering for young people is very reasonably priced vis-à-vis the countries used for comparison. Young people only pay less in Austria. In the case of frequent travellers, it should be noted that the tickets include different services. In Switzerland, Austria and the Netherlands, a flat-rate ticket is already worthwhile for the routes examined (CH: GA travelcard). This enables travellers to journey throughout the country. In the other countries, the best buy for travellers is a point-to-point season ticket.

Swiss business travellers who journey once a week between two major cities, pay more than twice as much as commuters. Nevertheless, they pay comparatively low prices. In none of the countries is a travelcard worthwhile for weekly journeys. Occasional travellers purchase a single ticket (with discount card).

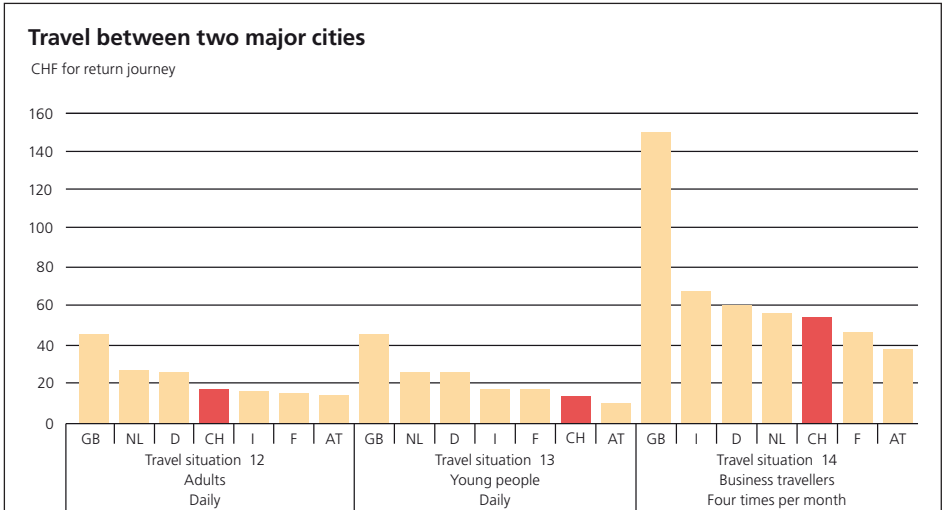


Figure 8: Travel between two major cities (adjusted for purchasing power)

Remarks

- › The mobility situation *Travel between two major cities* is based on the reference route Zurich–Bern, 96 km (linear distance).
- › Austria: On the route Salzburg–Linz, WESTbahn has been operating a long-distance service since the end of 2011. Single tickets are up to 50% cheaper than with the Austrian Federal Railways (included in the comparison).
- › Great Britain: There are extreme price differences in the ticket categories (Anytime tickets are up to 5 times more expensive than Off-Peak tickets). To determine the fare, the ticket category Advanced (30% cheaper than Anytime and up to 200% more expensive than Off-Peak) was included (see section 2.1).

Tickets compared for travel between two major cities							
	CH	D	AT	I	F	NL	GB
Daily							
Adults	GA travelcard	Point-to-point season ticket	Österreich-card	Point-to-point season ticket	Point-to-point season ticket	Altijd Vrij Jaar	Point-to-point season ticket
Young people	GA travelcard	Point-to-point season ticket	Österreich-card	Point-to-point season ticket	Point-to-point season ticket	Altijd Vrij Jaar *	Point-to-point season ticket
Weekly							
Adults	Single ticket with half-fare travelcard	Single ticket with Bahn-Card 50	Single ticket (WESTbahn)	Single ticket	Abonnement Fréquent	Single ticket	Single ticket (Advanced)

Table 8: Tickets compared for travel between two major cities

Ticket type per target segment and frequency

3.1.5. Service quality index

The price comparisons in section 3.1 do not take service quality into account. This varies greatly between the countries under comparison. In order to be able to comprehensively compare national offerings, service quality is to be included as well (see below) based on an index. This index is made up of the following criteria:

- › **Punctuality in long-distance traffic:** Percentage of long-distance trains with less than 15 minutes' delay. *Source: UIC Railway Statistics 2014*
- › **Offer density:** Quotient from the number of train kilometres by the national railway divided by the population of the country. *Source: UIC Railway Statistics 2014, Eurostat 2015*
- › **Speed:** Average speed of long-distance traffic between two major cities. *Source: Electronic timetable (journey time) and Google Maps (distance)*
- › **Degree of integration of public transport in the respective country:** Possibility of getting to every place in the country by public transport within reasonable journey times and reliably (reliable connections). *Source: INFRAS estimate*

Assessment for each criterion							
Country	Railway	Punctuality long-distance traffic	Offer density			Speed long-distance traffic	Degree of integration
		2014 ≤15 minutes	2014 K train km	2014 Population	2014 K train km/inhabitants	km/h	
AT	ÖBB	95.1%	127'061	8'506'889	14.9	108.1	medium
D	DB AG	76.5%	825'467	80'767'463	10.2	137.4	medium
F	SNCF	90.9%	442'889	65'889'148	6.7	204.8	low
GB	ATOC	91.1%	524'356	64'351'155	8.1	111.0	medium
I	FS	92.6%	262'787	60'782'668	4.3	149.5	medium
NL	NS	87.1%	118'407	16'829'289	7.0	103.4	high
CH	SBB	99.0%	178'541	8'139'631	21.9	110.1	high

Table 9: Assessment for each criterion

Figures achieved by the countries for each criterion

A maximum of four points were distributed per criterion, with four representing the top rating.

Points table							
Punctuality		Offer density		Speed long-distance traffic		Degree of integration	
≤15 minutes	Points	K train km/inhabitants	Points	km/h	Points	Integration	Punkte
>95.1%	4	>20	4	>200	4	high	4
>93–95%	3	>15–20	3	>160–200	3		3
>91–93%	2	>10–15	2	>120–160	2	medium	2
>89–91%	1	>5–10	1	>80–120	1		1
≤89%	0	<5	0	≤80	0	low	0

Table 10: Points table

The total number of points received by each country represents the index for service quality. The maximum number of points for each country is 16.

Switzerland lies in first place with 13 points, with top positions for punctuality, offer density and degree of integration. The one criterion in which Switzerland only achieved a low number of points was speed. Austria follows in second place with 9 points. In terms of punctuality, Austria is able to hold its own with a top result. The remaining countries share third place with 6 points each. Zero points were awarded to Germany and the Netherlands for punctuality, to Italy for offer density and to France for degree of public transport integration. On the other hand, maximum points were awarded to France for speed and to the Netherlands for degree of public transport integration.



Figure 9 / Table 11: Service quality index = total of points achieved

Figure 10 indicates service quality in relation to the price (adults, nationwide travel). The comparison shows that Switzerland offers above-average quality for an average price. From the customer perspective, this is the most favourable combination of price and quality.

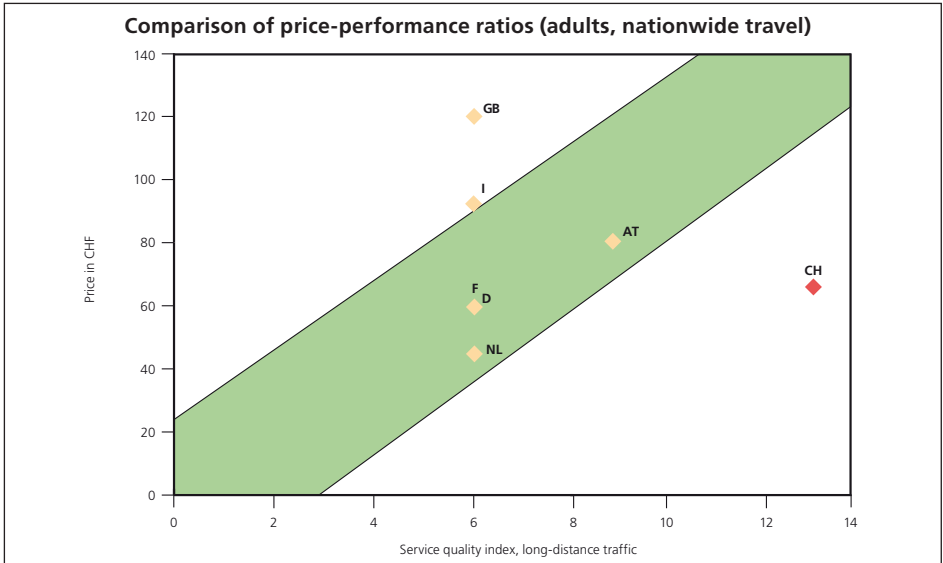


Figure 10: Comparison of price-performance ratios (adults, nationwide travel)

Ratio of price (adjusted for purchasing power) and service quality for nationwide travel (Zurich–Bivio, 132 km). Interpretation aid: For a journey to the countryside covering a distance of 132 km, the price (adjusted for purchasing power) is CHF 82 in Austria and just under CHF 68 in Switzerland. Travellers not only pay an approx. 15% lower price in Switzerland but also get significantly higher quality (13 points) than in Austria (9 points).

3.2. TOP-DOWN COMPARISON

Price trend

In the period between 2005 and 2015, public transport prices in Switzerland rose by 17.8% in real terms. Whereas they remained on the same level in the years from 2005 to 2010, they rose markedly in the years from 2011 to 2015. In contrast to the majority of the countries used for comparison, Swiss public transport prices have increased at an above-average rate since 2010.

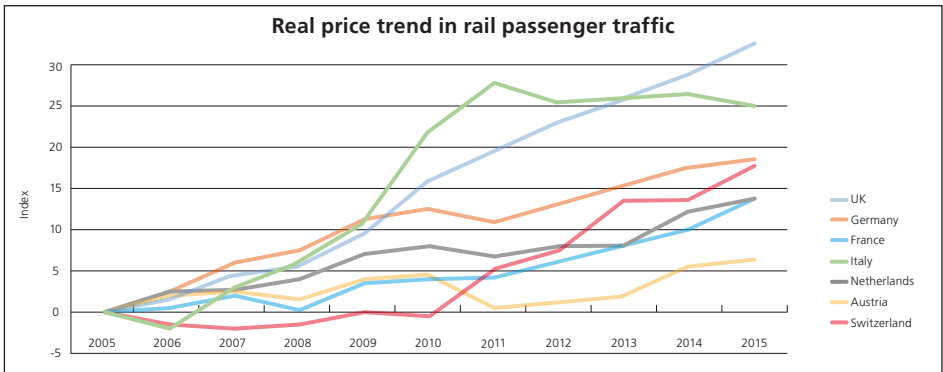


Figure 11: Real price trend in rail passenger traffic
Rail passenger traffic price trend index (2005=100)

Chart INFRAS. Source: Eurostat 2016

3.3. CLASS DIFFERENTIAL

Figure 12 shows the class differential between a 1st class ticket (adult return) and a 2nd class ticket for a journey between two major cities for each country.

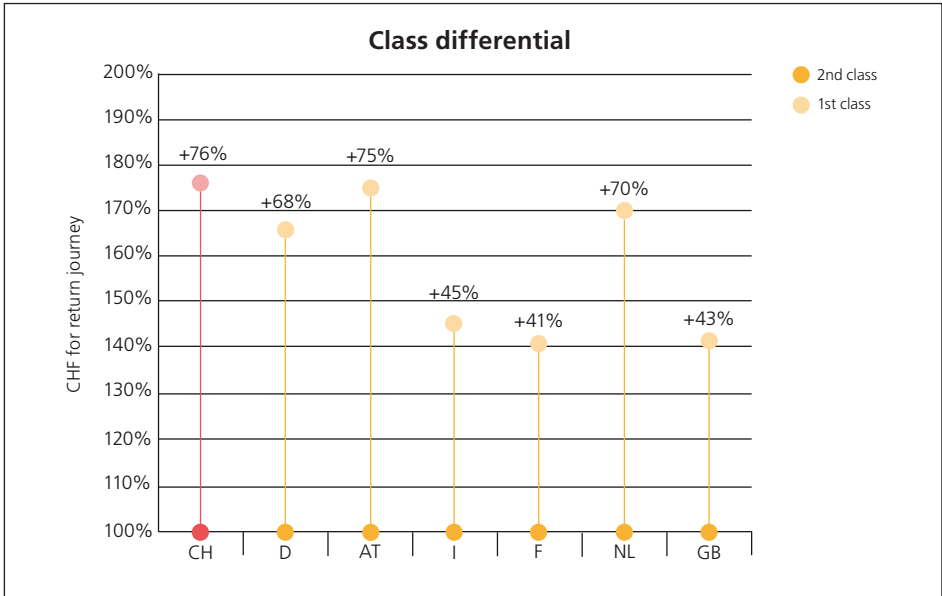


Figure 12: Class differential

Prices for 1st class (adults / return journey) in relation to prices for 2nd class for a journey between two major cities

In Switzerland, the class differential is 76%. This makes it the highest, albeit at the same level as in Germany, Austria and the Netherlands. The ratio is much lower in Italy, France and Great Britain. In these countries, passengers pay a surcharge of 41–45% for 1st class.

3.4. FLEXIBLE PRICES

For a number of years, ticket price structures have become ever more flexible, that is to say the ticket price is dependent on the time of booking and travel.

In comparison with other countries, the range of saver tickets (tied to a specific train) in Switzerland is limited. Around 100,000 saver tickets are offered each day with discounts of up to 50% on individual routes. The offer is not available for routes within a network. Recently, the saver ticket range has also become available via the new SBB Mobile Ticket App. Available offers are displayed directly at the time of buying a ticket. In addition to the saver tickets, there is the 9 o'clock travelpass, which offers unlimited travel after 9.00 during the week (valid only with half-fare travelcard).

Figure 13 shows the price differential for each country between the normal tariff (2nd class return journey / adults / without discount card) and the saver price (cheapest price adults /

without discount card: tied to a specific train and time, ticket purchased in advance) for the mobility situation Travel between two major cities.

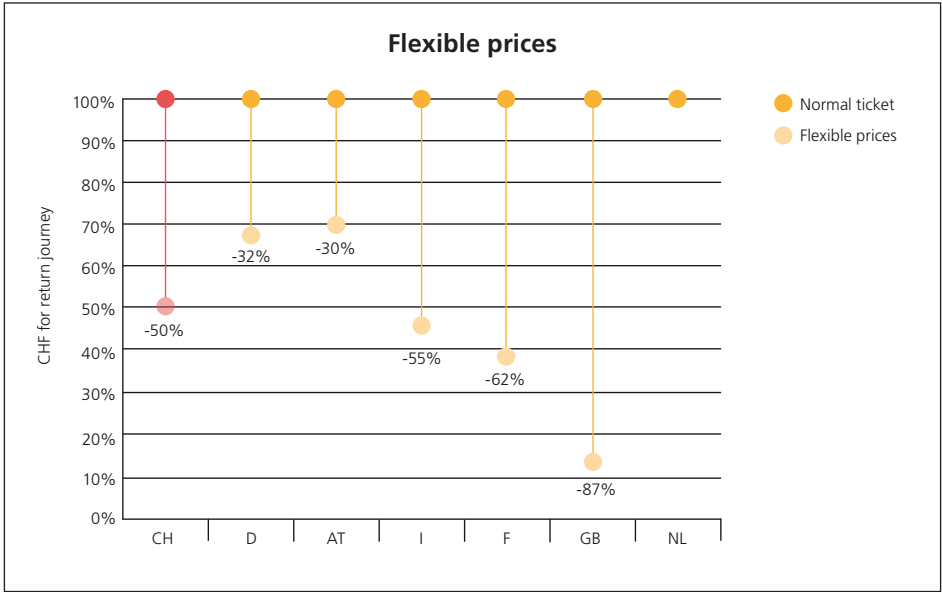


Figure 13: Flexible prices

Flexible prices (adults / return journey / without discount card) in relation to a normal ticket for nationwide travel. For Austria, the WESTbahn offers were used for the comparison (ÖBB does not offer any saver tickets on the Salzburg–Linz route).

On the Zurich–Bern route, travellers with a saver ticket pay as much as 50% less than regular passengers. Compared with the other countries, this is mid-table. Passengers in Great Britain receive much higher discounts. The British price system is based on a big price differentiation which, in addition to the journey length, takes into account the offer, the demand and the time of ticket purchase. This means that rail tickets not bought a long time in advance and not tied to a specific train are very expensive in Great Britain. Furthermore, the offer of flexible prices in Great Britain is not restricted to leisure traffic, but also targets daily commuter traffic and includes urban traffic. Apart from Great Britain, flexible prices are common in France and Italy, in particular, albeit without such a high price differential. In the Netherlands, there are no saver tickets (reduced single tickets). Instead, regular weekend travellers can purchase an inexpensive travelcard entitling them to free rail travel at the weekend.

Remarks

- › Austria: Depending on the route, the Austrian Federal Railways offer “Sparschiene” tickets from EUR 9 (e.g. for Vienna–Linz, instead of the normal price of EUR 34.30). On the Salzburg–Linz route, however, the saver tariff is not available, which is why the WESTbahn offer was used.
- › In the Netherlands, there are no saver tickets for individual journeys, but the transport companies have various inexpensive travelcard offers that feature, for example, ticket price reductions of 40% in off-peak hours and free travel at the weekend.
- › In Switzerland, Austria, Germany and Great Britain, adults are able to combine the saver tariff with discount cards.

3.5. FLAT-RATE TICKETS

In Germany, Austria, France and the Netherlands, flat-rate tickets similar to the Swiss GA travelcard are available. They differ in terms of the services (free travel on all means of transport of a particular country, on all railways, on the state railway network, etc.) and the price. The price differences are considerable. Table 12 shows the prices and the corresponding services in detail.

Flat-rate tickets		
Offering	Price for 1 year in CHF (adults)*	Services included
SBB: GA travelcard	3655	Free travel on SBB routes and the majority of private railways throughout Switzerland. The GA travelcard is also valid for post buses, ships and local public transport (tram and bus) in most cities and agglomerations. Some mountain railways offer reductions for GA travelcard holders as well.
DB: BahnCard 100	7496 (4563)	Valid on all Deutsche Bahn trains (local and long-distance) as well as on selected bus routes and railways operated by other transport companies.
ÖBB: ÖSTERREICHcard	2890 (1918)	Entitles the holder to free travel with ÖBB and some Austrian private railways.
SNCF: Abonnement Forfait France	18642 (11381)	Valid throughout France on the SNCF route network, with the exception of the Île-de-France region. Seat reservations remain subject to a charge (€ 1.50).
NS: OV-Jaarabonnement	7612 (5177)	Valid for all public transport in the Netherlands: NS trains and trains belonging to other operators as well as local public transport (bus, tram and underground).

Table 12: Flat-rate tickets

* GA travelcard: prices and services adjusted for purchasing power; the figures in () are the prices without adjustment for purchasing power, in CHF (monthly mean rate of June 2016 [Swiss Federal Tax Administration 2016]).

Break-even distance

Regardless of the services included, the question arises as to the annual travel distance from which the purchase of an annual travelcard is worthwhile in the different countries. More and more countries are taking other factors into consideration besides distance when calculating ticket prices. This is why the kilometre prices vary from route to route. In order to calculate the break-even point, it would be necessary to analyse the fares for widely differing routes and to calculate an average from this. This is not part of the study, which is why the break-even travel distance calculations are based on mobility situation 12: Travel between two major cities. Consequently, the results are not universally valid. They nevertheless provide a rough picture of the relationships between the different countries. Based on the kilometre price for the Zurich–Bern reference route, the purchase of a GA travelcard is worthwhile for weekday travellers in Switzerland if the journey length (home-place of work) exceeds 80 kilometres (Figure 14). Compared to annual travelcards in the other countries, the Swiss GA travelcard is very attractively priced. This is true especially because the GA travelcard covers (almost) all Swiss public transport (long-distance, regional and local services, with exceptions). In the countries used for comparison, regional and local traffic is often not included in the services (Germany, Austria and France). The Swiss GA travelcard therefore offers the best price-performance ratio of all flat-rate tickets analysed.

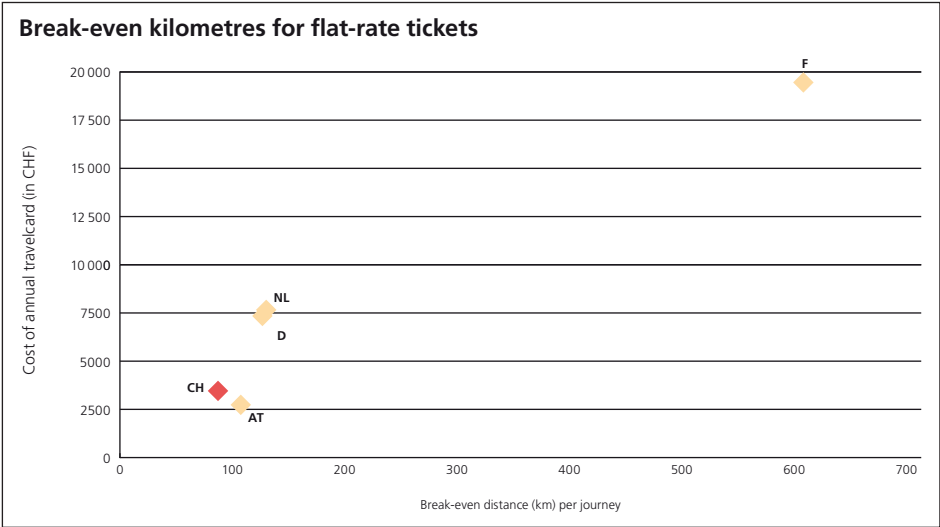


Figure 14: Break-even kilometres for flat-rate tickets (adjusted for purchasing power)

Break-even kilometres for annual travelcards

Interpretation aid: Based on the kilometre price for the Bern–Zurich reference route (point-to-point season ticket), the purchase of a GA travelcard is worthwhile for commuters in Switzerland if the journey length (home-place of work) exceeds 80 kilometres, at a purchase price of CHF 3,655. In the Netherlands, the annual travelcard costs CHF 7,815 (adjusted for purchasing power) and the break-even point, based on the kilometre price for the Amsterdam–Eindhoven route (point-to-point season ticket), is reached at 130 kilometres.

4. Price comparison 2013 vs. 2016

The public transport ticket prices in the seven countries were determined using the same method as in 2013. This enables a comparison to be made between the two studies. It should be noted, in principle, that the price change between 2013 and 2016 is attributable to three different causes: ticket-specific price adjustments, changes in the general price level and changes in the exchange rate. An analysis of the cause does not form part of this study and is not gone into in further detail here. The PPP index fell from 1.53 to 1.45 in Switzerland between 2012 and 2015. This implies that either prices in Switzerland have fallen while prices have remained unchanged in other countries (reference US dollar), or that prices in other countries have gone up. In the Netherlands, Austria and Great Britain, the index rose between 2012 and 2015, which leads to the assumption that prices have gone up since 2012 (against the reference). In the other three countries, the index remained constant or fell slightly. Taken as a whole, the differences between the countries (in comparison with the reference) have declined.

OECD Purchasing Power Parities for actual individual consumption 2012/2015							
PPP-Index	Switzerland	Germany	Austria	Italy	France	The Netherlands	Great Britain
2012	1.53	0.79	0.85	0.82	0.86	0.86	0.67
2015	1.45	0.79	0.86	0.79	0.83	0.88	0.76

Table 13: OECD Purchasing Power Parities for Actual Individual Consumption 2012/2015
Table INFRAS. Source: OECD 2016 in collaboration with EUROSTAT and Swiss Federal Statistical Office

Travel within a major city

Generally speaking, Switzerland's position has remained roughly unchanged between 2013 and 2016. As before, Switzerland is mid-table in terms of prices. In the case of adults, its position has dropped by one place. On the other hand, Switzerland has gained one place in the case of young people. In Austria, prices have fallen markedly for adults as a result of a tariff reduction (Tyrol public transport network area).

Travel in the metropolitan area

Compared to 2013, Switzerland is relatively stable vis-à-vis the countries used for comparison. For frequent travellers, the price differences between the countries remain constant. Adults who travel occasionally pay slightly higher prices in Switzerland than in the countries used for comparison. In addition to changes in the price levels and in the exchange rates, this is attributable to other offers (ZOU! travelcard in Marseille), new offers (the Forfait navigo travelcard is now valid for all zones in Paris) and tariff reductions (up to 70% cheaper prices in the Tyrol public transport network, Austria).

Changes between 2013 and 2016: Travel within a major city

CHF per calendar day

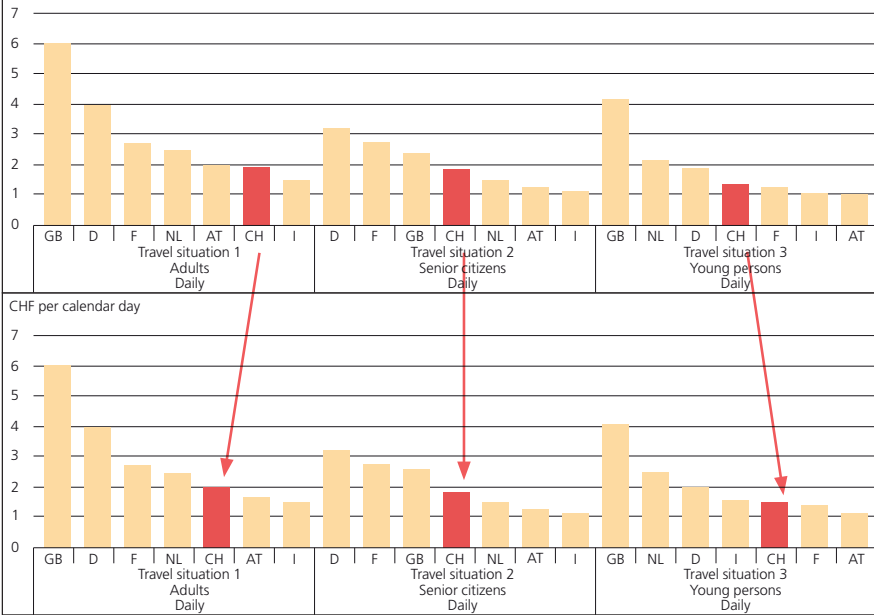


Figure 15: Changes between 2013 and 2016: Travel within a major city

Changes between 2013 and 2016: Travel in the metropolitan area

CHF per working day / return journey

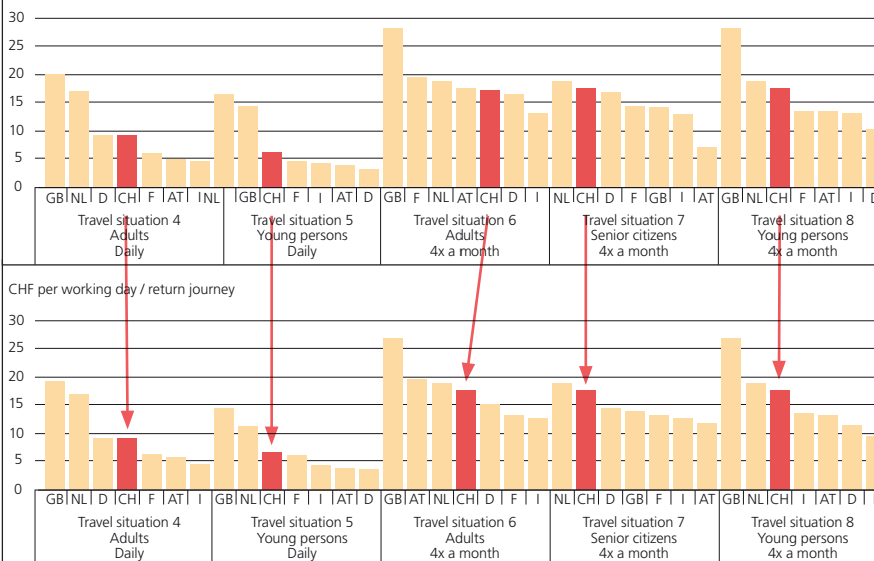


Figure 16: Changes between 2013 and 2016: Travel in the metropolitan area

Travel nationwide

The prices for travel nationwide have risen slightly compared to the other countries. Adults pay more. Among the countries used for comparison, the position of Great Britain and the Netherlands has changed markedly. Because the Dutch Weekend Vrij travelcard has now been included in this study, the Netherlands occupies a top spot. Great Britain and Italy are the most expensive when it comes to travel nationwide. In this respect, it should be noted that a marked price differentiation is applied especially in long-distance traffic, which makes it difficult to compare two different times, and the positions may vary from year to year.

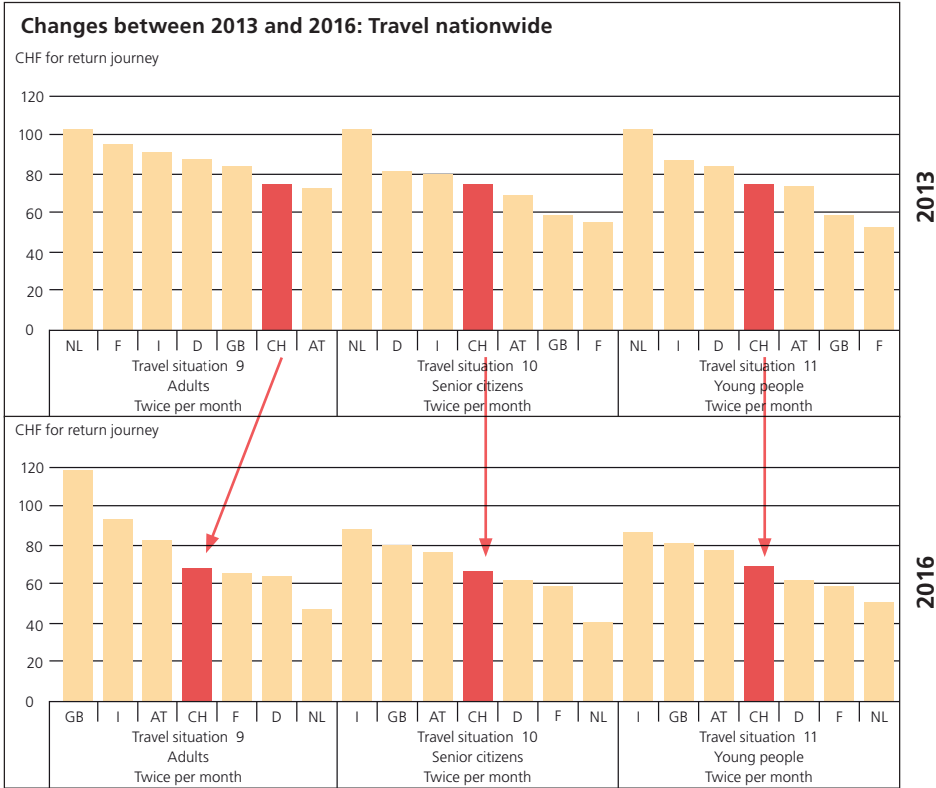


Figure 17: Changes between 2013 and 2016: Travel nationwide

Travel between two major cities

Between 2013 and 2016, no great changes are apparent between the countries. Switzerland is able to maintain its top position for young people’s travel, but loses one place in the case of adults. Austria continues to rank first for all target groups and Great Britain demands by far the highest prices.

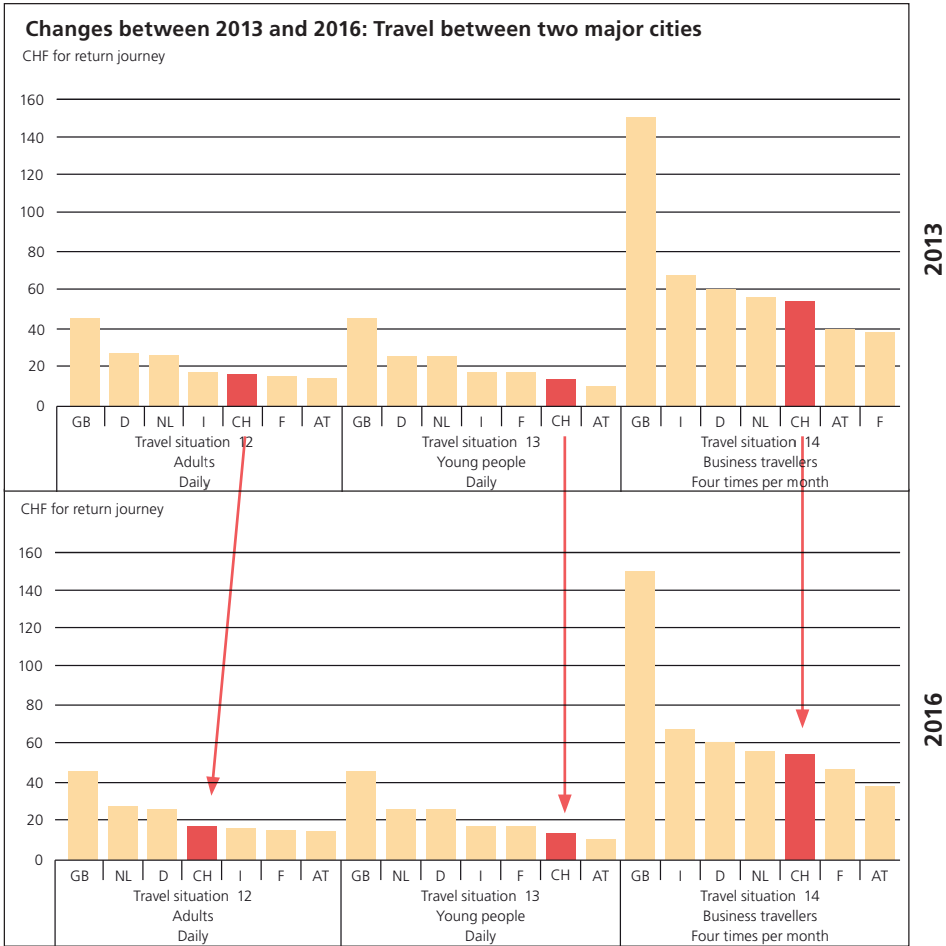


Figure 18: Changes between 2013 and 2016: Travel between two major cities

Across all mobility situations, the price position (ranking) of Swiss public transport has moved slightly to the left between 2013 and 2016. Taking the outstanding quality into account, Switzerland offers an above-average price-performance ratio.

5. Concluding remarks

Across all mobility situations, Swiss public transport prices are mid-table.

Taking purchasing power into account, Swiss public transport compares well against public transport in the European countries used for comparison. The prices generally are mid-table. The following detailed picture emerges:

- › **Cities:** In Swiss cities, prices are comparatively cheap. For senior citizens, this is subject to reservations. The majority of cities in the countries used for comparison offer concessions for senior citizens. Of the two Swiss cities examined, there are concessions in Lausanne, but not in Zurich. Taken together, the two statements clarify the somewhat unfavourable rating of Switzerland in respect of ticket prices for senior citizens.
- › **Metropolitan area:** For daily travel (travelcards), Switzerland is mid-table. For occasional travel (single tickets), Switzerland comes out more expensive for senior citizens and young people in a cross-comparison. This is explained by the fact that neither senior citizens nor young people receive a special discount on single tickets. The half-fare travelcard, which is very popular in Switzerland, enables all adult passengers to travel at half-price.
- › **Travel to the countryside:** Swiss public transport prices are mid-table. Compared to the 2013 study, the Swiss position has declined. This is not due to any price increases in Switzerland, but to price reductions in Germany and the Netherlands. As for the Netherlands, we included a saver ticket in the 2016 study that we had not included in the 2013 study. This has markedly improved the position of that country.
- › **City-city:** The prices are comparatively cheap. It is worthwhile for anyone making a daily journey of over 80 km in Switzerland to buy a GA travelcard. With the Junior GA travelcard, young people (16–25 years of age) travel at an extremely favourable rate. Business travellers who do not travel daily, pay three times as much for the journey as commuters with a GA travelcard. At the same time, in a cross-comparison, they still travel at a favourable rate.

Swiss public transport comes with very high service quality

Switzerland achieves the highest service quality (punctuality, offer density, travel speed and degree of integration). Together with the prices, which are at an average level in comparison, Switzerland offers its passengers the best price-performance ratio.

One journey – one ticket

In Switzerland and since recently in Austria, it is possible to travel nationwide with just one ticket (Direct Transport system) and to use the services of several transport companies. The tickets can be bought in a single booking process via webshops and ticket apps.

Saver tickets and off-peak offers

The range of time-restricted travelcards and single tickets – the price being dependent on the time of booking and travel – is extensive and growing in other countries. These tickets tend to be tied to a specific train. This restricts the free choice of trains everywhere.

The price flexibility trend is most pronounced in Great Britain. Here, saver tickets and travelcards are available for both local and long-distance traffic. Swiss railways are also increasingly offering saver tickets. For journeys with several means of transport, on the other hand, we have been unable to find saver tickets in any country. For the journey from Zurich to Bivio, for example, the Direct Transport system applies: one journey – one ticket. In this system, there are no saver tickets in the narrower sense of the term. Passengers who want to benefit from saver tickets for Direct Transport travel, will have to use split ticketing. Instead, there are frequent special offers, such as the Duo day travelpass.

Class differential

At 76%, the class differential between 1st and 2nd class in Switzerland is similar to that in Germany, Austria and the Netherlands. In Italy, France and Great Britain, the class differential is significantly smaller.

Outstanding price-performance ratio of the GA travelcard

In contrast to the majority of flat-rate tickets in the countries used for comparison, the Swiss GA travelcard is valid not only on the state railways, but also on local and regional services. The GA travelcard is worthwhile from a daily commuting distance (home – place of work) of 80 km.

Price comparison 2013 vs. 2016

In a cross-comparison with six European countries covering all mobility situations, Switzerland's position has declined slightly in a few mobility situations since 2013. This is mainly due to selective price reductions (e.g. saver tickets) in the countries used for comparison (AT, NL). In terms of service quality, Switzerland remains in front by a wide margin. For this reason, the price-performance ratio of public transport also continues to be very good.

Neighbouring countries

Across all mobility situations, the British have to pay the most for public transport. It is not possible to make similar general statements for the other countries. In one case, travel is comparatively expensive, in another it is comparatively cheap.

Long-term trend in public transport prices

In the period from 2005 to 2010, Swiss public transport prices remained stable in real terms, while prices in the countries used for comparison rose. From 2011 to 2015, prices in Switzerland rose by 17.8% in real terms. These price increases were necessary in order to finance the offer which has been greatly expanded in recent years. Over the entire ten-year period, the real price increases in Switzerland are in line with the average for the countries under comparison.

List of abbreviations

AT	Austria
CH	Switzerland
D	Germany
F	France
GB	Great Britain
I	Italy
NL	The Netherlands
UIC	International Union of Railways

Literature

Websites for checking public transport prices

Switzerland:

www.sbb.ch
www.t-l.ch
www.zpass.ch
www.zvv.ch

Germany

www.bayerischeoberlandbahn.de
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