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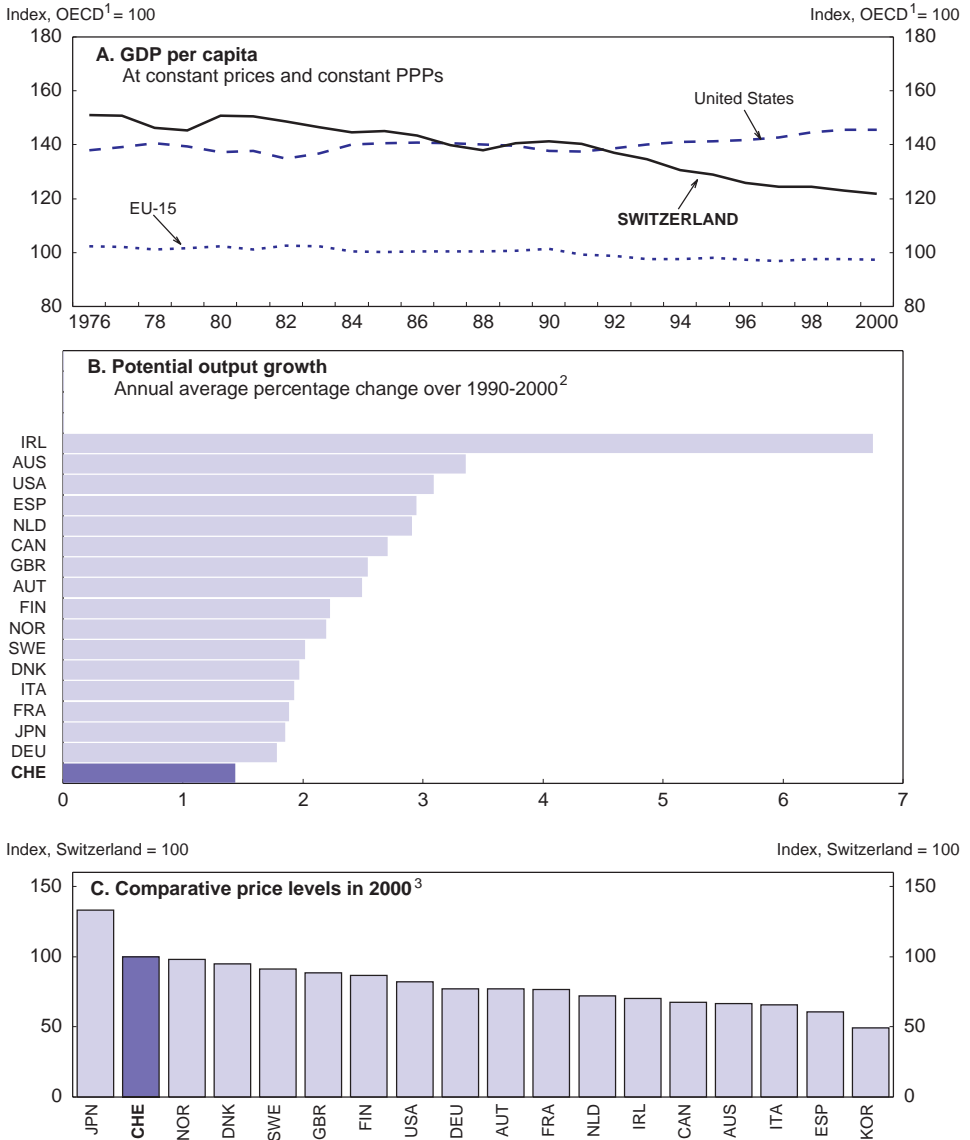
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III. Enhancing potential growth

While Switzerland is still one of the richest countries in the world, the lead over the European Union has dwindled during the last twenty years, and the negative gap with respect to the United States has widened. Part of this comparatively poor performance is explained by the prolonged stagnation of the 1990s, which contrasts with a less pronounced cycle in the rest of Europe and a strong growth performance by the United States (Figure 20). However, the trend decline suggests that there are deeper, structural factors at work that are reflected in a meagre potential output growth. This is not due to resource constraints, since investment rates have been high and potential labour supply has been well exploited, as demonstrated by low unemployment and high participation rates, even if female labour supply could grow further. Moreover, the labour force has increased through higher immigration, and population grew by 5.9 per cent during the last decade, more than in most European countries, ensuring that there will be no shortage of labour supply in the coming years. Rather, potential output has been limited by slow total factor productivity growth, which has averaged only $\frac{1}{4}$ per cent annually during the 1990s, less than in most other OECD countries (Table 17). Price levels are also very high in international comparison. The price of a large basket of goods is about 33 per cent higher than in the European Union, and 15 per cent above the US level, despite a lower standard of living.

Productivity and price comparisons suggest that Switzerland could benefit from a wide-ranging structural reform programme. The government implemented such a programme in 1993 (the so-called “revitalisation programme”), after participation in the European Economic Area was rejected by the Swiss people in a referendum in December 1992. It included reform initiatives in agriculture, energy markets, telecommunications, transport and competition policy, and the negotiation of bilateral agreements with the European Union to co-operate more closely in vital areas, which should enter into effect this year and will be extended to new issues (Box 7). Reforms in some sectors have been important; for instance in telecommunications, where the partial privatisation of Swisscom was accompanied by greater competition with other operators. But in other areas policy initiatives were timid. Changes in agricultural policy, for instance, have been successful in moving towards environmentally sounder agricultural practices, but not in reducing

Figure 20. Output growth and price levels



1. Excluding Czech Republic, Hungary, Poland, Slovak Republic and Switzerland.

2. For Germany, 1992-2000.

3. Defined as the ratios of the purchasing power parities (PPP) for private consumption expenditure to exchange rates. PPPs for all countries are OECD estimates. For each country the figure shows the number of specified monetary units needed to buy the same Swiss representative basket of consumer goods and services.

Source: OECD, Quarterly National Accounts and Main Economic Indicators.

Table 17. **Decomposition of potential output growth**
1981-2001,¹ annual averages, per cent

	Switzerland	United States	Germany	France
Potential output growth	1.6	3.1	2.1	2.2
<i>of which contribution of:</i>				
Capital stock	0.9	1.0	0.7	0.9
Trend labour efficiency	0.3	1.2	1.5	1.4
Trend hours	-0.2	0.0	-0.5	-0.4
Potential employment	0.8	1.1	0.3	0.3
<i>of which:</i>				
Working-age population	0.5	0.7	0.3	0.3
Trend participation rate	0.3	0.2	0.1	0.0
Structural unemployment	0.0	0.2	-0.1	-0.1

1. For Germany, it excludes 1991.

Source: OECD estimates.

protection in a sector which has a clear comparative disadvantage. Changes to competition policy (like the Cartel Law or the Domestic Market Act) have also proved insufficient, and intended goals were often not met. Competition policy is currently being strengthened. The new electricity law is also an important step towards raising efficiency and lowering energy prices, but risks being rejected by the Swiss people.

Several features should, in principle, favour a much better long-term growth record. Among them is a high degree of integration in the global economy, a good infrastructure, an improved macroeconomic policy framework and a well-performing education system. Moreover, the labour market functions well. There are weaknesses in product markets, however, where a competition policy with teeth is needed, including the strengthening of independent regulators. This chapter highlights the weaknesses in product markets, and also includes a short review of health expenditure and of financial and labour markets. The chapter concludes with an assessment of the benefits that reforms could bring through efficiency gains and price reductions. The major recommendations for further reforms are summarised in Table 18.

Product market reform

Promoting competition should play a central role in economic policy

Competition policy is a key factor for enhancing efficiency and productivity, and in this area Switzerland has ample room for further improvement. Efforts by the federal government to strengthen competition during the second half of the past decade were important, but have had a limited effect so far. Two policy

Box 7. Towards a second round of bilateral agreements

The first round of bilateral agreements with the European Union was signed in June 1999 and was ratified in October 2000 by Switzerland and in the course of 2000 and 2001 by the EU member states. Belgium was the last one to ratify the agreements in February 2002. The agreements touch several areas that fill the gap left by the refusal of the Swiss people to join the European Economic Area, and will probably come into force in May or June 2002. The issues covered include air transport, agriculture, research and development, public procurement, and especially the agreement on land transport (see below) and on the free movement of persons, which were particularly contentious (OECD, 1999a). A new round of negotiations has started in July 2001, including 10 issues. Apart from the taxation of income from savings paid to non-resident individuals (see below), an important area will be the fight against customs fraud in the field of indirect taxation. The European Union would like to have access to information on matters related to customs fraud and other illegal activities through the judicial and administrative system. The Swiss legislation is more lenient in this case and allows cooperation in case of fraud but not in case of simple tax evasion. The illegal activities that are subject of the negotiations often concern smuggling of cigarettes, alcohol and electronic goods, and results in a considerable loss of indirect tax receipts by EU countries. Switzerland seems ready to accept several of the EU's demands, like the possibility to extradite offenders, the disclosure of bank information in case of fraud and smuggling and co-operation in cases where smuggling is not passing through Switzerland. However, the Swiss authorities would like to limit the agreement to a list of specific cases (like cigarettes, alcohol, fraud in agricultural subsidies, etc.) and avoid the lifting of bank secrecy in unspecified cases. Another major issue in the negotiations is the participation of Switzerland in the Schengen space, which would improve co-operation with the EU in the field of internal security. Other issues include: the liberalisation of services, which would allow the provision of services in neighbouring countries without the need to establish a subsidiary, and would especially benefit financial companies and professionals; the reform of the price compensation mechanism in trade of processed agricultural products; harmonization of statistics with Eurostat requirements; and co-operation on environmental and education issues.

initiatives to promote the liberalisation of markets for goods and services were taken: a new Cartel Act was approved in 1995 that addresses anti-competitive behaviour of cartels, and a Domestic Market Act was adopted in 1998 that aims at implementing a true internal market, mainly in the areas of public procurement (see Chapter II) and freedom to provide professional services.

Cartels cannot be forbidden without changing the federal constitution, which would have been difficult and slow. To circumvent this problem, the law

Table 18. **Recommendations for further structural reform**
Based on previous and current *Surveys* and action taken since end of 2000

	Recommendations	Actions taken
	Product markets	
2000	Amend legislation to prohibit cartels and penalize uncompetitive behaviour.	Reform of the Cartel Act under preparation. It will introduce penalties also for first infractions and encourage the denouncing of illegal practices.
2000	Strengthen resources of the COMCO.	Reform of the cartel law foresees a strengthening of resources.
2002	Allow for parallel imports.	Limited liberalisation under preparation.
2002	Reform the Domestic Market Act to introduce freedom of establishment and give more powers of appeal to the COMCO. The COMCO should be able to produce general reports on competition and comment on any proposed cantonal law.	
2002	Introduce measures to improve corporate governance.	Voluntary code, that falls short of best practice, under preparation. A more detailed code and, possibly, new legislation will apply to listed companies.
1999	Lower agricultural protection.	A general outline for reform up to the year 2007 will be submitted to Parliament in June 2002.
2000	Accelerate deregulation of electricity and gas markets by adopting best practice of EU countries.	Electricity reform approved by Parliament, but will be challenged by referendum.
2000	Unbundle local loop; encourage the development of wireless local loop.	Licenses of radio access to the local loop auctioned in 2000.
2000	Open postal services and railway transport to competition.	Preliminary plans to reform the Post Office. Railway reform started in 1999.
2000	Introduce more flexible shop opening hours.	The largest canton (Zurich, 1/6th of population) liberalised shop opening hours completely in 2000 exercising pressure on neighbouring regions.
2002	Progressively open the air transport sector to foreign competition and avoid further intervention in Crossair/Swissair.	An open sky agreement was passed with the US and bilateral agreements with the EU will come into force in 2002; grandfathered rights on remaining lines will expire by 2008.
	Labour markets	
1997	Regional Placement Offices (RPOs) to focus on reducing the duration of unemployment of job losers.	Benefits duration introduced as a criterion in the evaluation of RPOs.
2000	Put conclusions from ALMP evaluation into practice.	Most recommendations implemented.
2000	Lower maximum duration of unemployment benefit eligibility.	Draft reform to reduce maximum duration from 520 to 400 days for workers aged under 55.
2000	Prepare careful evaluation of the new PES.	Evaluation under preparation.

Table 18. **Recommendations for further structural reform** (cont.)
Based on previous and current *Surveys* and action taken since end of 2000

	Recommendations	Actions taken
2002	Provide more work opportunities for involuntary part-timers; develop child care facilities to encourage female participation.	
	Financial markets	
2002	Privatise cantonal banks and pursue their social policy objectives more transparently.	
2002	Increase further the resources of the anti-money laundering regulator and assess the effectiveness of self-regulation.	Resources increased, but further increase might be warranted.
	Reform the tax system	
1999	Align the remaining three cantons to the system of income tax collection assessed on current year income.	Implemented.
1999	End the time-limitation of the federal government's power to raise income taxes and VAT.	Needs reform of Constitution.
1999	Replace the progressive tax on corporate income prevailing in many cantons by flat rate tax on corporate profits.	Several cantons have switched to a proportional rate in past years. ¹
1999	Amend tax treatment of funds of non-residents in a way that makes them less attractive as vehicles of tax evasion.	Ongoing negotiations with the European Union on taxing income from savings.
	Sustainable development	
1996	Reduce polluting farming methods.	Direct subsidies to agriculture linked to sound practices.
1996	Monitor carefully the path of annual CO ₂ emissions to secure Kyoto objectives, and impose a CO ₂ tax if the target is likely to be missed; the introduction of tradable emission permits should be considered.	The introduction of a CO ₂ tax will be possible as from 2004 in case contractual and voluntary actions turn out to be insufficient.
	Ageing and health care	
2000	Improve regulation of pension funds to help improve their returns on assets. Enhance transparency and regulation of funds.	Every pension fund has to set up its rules on how it intends to exercise its shareholder rights.
2000	Consider raising retirement age.	None.
2002	Withhold the obligation for insurers to contract with all doctors.	Under discussion in Parliament.
2002	Reform the financing system of hospitals.	Under discussion in Parliament.
2002	Implement measures to cut spending on pharmaceuticals; remove barriers to pharmaceutical imports.	Limited progress through various reform measures.

1. Nine cantons now have a flat rate, eight cantons do also have a flat rate but apply a lower rate to profits up to a certain threshold, while nine cantons still have a tax rate increasing with the rate of return on own capital. In 1989 only two cantons had a flat rate.

Source: OECD.

of 1995 presumes that competition is suppressed when agreements between the competitors fix prices, restrict quantities to be put on the market or separate markets geographically. Under the new law the Competition Commission (COMCO) has carried out numerous investigations on potentially illegal agreements and abuse of a dominant position.¹¹⁰ Some of the cases already closed have finished with agreements to stop illegal behaviour. However, the law has a fundamental weakness when it comes to sanctions. Sanctions can only be applied in the case of repeated malpractice and therefore do not provide strong incentives to abstain from anti-competitive behaviour in the first place. Up to now there has not been any sanction for repeated malpractice.

The government has proposed a reform of the law that would increase sanctions for hard cartels. The reform project was submitted to Parliament in November 2001, and should be discussed during 2002 and enter into force in 2003. Sanctions would be imposed on companies that participate in hard core cartels (those that fix prices) or abuse their dominant position. For these types of behaviour, the fine will be determined by the Competition Commission based on the sales value of the previous three years, and could be up to 10 per cent of the sales value, depending on the seriousness of the offence. The sanction could also be linked to the gains made by the offender as a result of its anti-competitive behaviour. For any other type of anti-competitive behaviour, the current practice of only sanctioning repeated offences will remain. Another important element of the reform will be the inclusion of incentives to denounce forbidden horizontal agreements. The first company to declare its participation in such agreements and to provide proof of an agreement will not be subject to sanctions by the competition authority. Moreover, companies that subsequently declare their participation and co-operate in prosecuting the cartel will be rewarded with lower sanctions. Such leniency programs have been introduced with success in other countries in order to detect illegal agreements (Box 8).¹¹¹ The current draft reform does not deal with vertical agreements between producers and resellers, although the National Council might introduce this point in the debate of the law. The issue arises when producers impose prices on distributors, who cannot use parallel imports to obtain lower prices. For instance, this happens when goods are protected by patents. At the same time, in January 2002, COMCO indicated its intention to publish new rules applying to vertical agreements. In particular, below a 10 per cent share, companies will have a safe harbour except for vertical agreements that fix prices or establish exclusive territories which will be declared illegal if they cannot be justified by the economic efficiencies they generate.

In some countries professional services are heavily regulated, often shielding incumbents from competition. The situation is probably even worse in Switzerland, as cantonal governments have extensive powers and cantonal regulations often lead to market segmentation.¹¹² Since the approval of the Domestic Market Act (DMA), cantons have, in principle, to recognise degrees and titles to

Box 8. The vitamin cartel

A clear illustration of the inadequacy of the current regulatory framework is provided by the vitamin cartel case. In November 2001 the European Commission imposed its largest ever sanction on this cartel, which operated in Europe between 1989 and 1999, manipulating prices and fixing production quotas. In 1999, the same cartel had been investigated in the United States and sanctioned with heavy fines. The Commission considered proven that the cartel was instigated by Hoffman-La Roche, a Swiss multinational, which will have to pay the largest sanction of the group (EUR 462 million, or CHF 675 million). A French firm, Aventis, received a very low fine because it collaborated with the Commission and provided key information for the discovery of the cartel. Total sanctions reached a maximum of 2.6 per cent of the annual world sales of the firms involved (EU regulations allow for fines of up to 10 per cent). In Switzerland, the COMCO carried out a ten-month investigation, which ended with a simple promise by the companies involved to stop the cartel. Under the current Swiss legislation such a cartel could not be sanctioned, since it was the first time that the existence of a cartel had been proven. Likewise, the co-operation of Aventis and other firms could not have been rewarded in Switzerland with lower fines.

exercise a profession awarded in other areas, and the law established a two-year period to adapt legislation in order to eliminate entry barriers. However, up to now, the law seems to have failed to create an integrated market. A report by the Office Parlementaire de Contrôle de l'Administration (OPCA, 2000) highlighted that little progress had been made in harmonising legislation, for which there are several reasons. *First*, the law itself is not constraining enough, since cantons may refuse to open a market under certain conditions for public interest reasons. These exceptions are often invoked, precisely in those sectors where entry barriers are higher. *Second*, the Federal Tribunal has given a federalist interpretation of the law that favours cantons almost systematically and allows market fragmentation to persist. *Third*, companies and individuals can go through a judicial process to remove market barriers, but not many do so since the result of a complaint is uncertain and the procedures are expensive. Therefore Parliament started the discussion of a proposal to give the COMCO the power to appeal to the Federal Tribunal if it considers that decisions by cantonal tribunals do not fulfill the requirements of the DMA. A parallel proposal to give a hearing to the COMCO in the Federal Tribunal was rejected.

An effective competition policy is essential to raise productivity. Any type of anti-competitive practice should be sanctioned to give the right signal that anti-competitive behaviour will be punished. In this context, the reform of the Cartel

Act is a step in the right direction. The criteria to determine sanctions should be periodically revised to ensure that they provide sufficient incentives to attain their goals. Moreover, the possibility of imposing penal sanctions on managers could also be considered. Liberalisation of parallel imports would also be an important element for lowering margins and prices, and the recent initiative by the National Council to include this in the draft law is welcome. As for the DMA, a reform is needed to avoid interpretations by the tribunals against the spirit of the competition laws. For example, a specific reference to freedom of establishment should be included in the DMA. The powers of the competition authority need to be extended in several respects. The COMCO should be allowed to comment on every draft law at the cantonal level, in order to determine if they are in accordance with competition principles, and should be given the right of appeal on any matter concerning competition. As in other countries, the COMCO should publish annual reports on competition developments and point to the areas in need of reform. Finally, in order to fulfil its objectives, the COMCO needs more resources. The commission is composed of 15 members (who do not work full time) and its secretariat comprises only 45 persons, less than in other European countries of similar size (such as the Netherlands or Finland).

Corporate governance is in need of reform

The collapse of Swissair (see below) has raised corporate governance issues. It has been argued that the board of Swissair did not have enough information to assess the gravity of the financial situation of the company prior to the crisis, and was thus not able to foresee its bankruptcy. More generally, the lack of pressure from shareholders and the lack of separation of the board from management reduce incentives to adopt best practice and thus weakens performance. In many Swiss companies the board is headed by the firm's manager, which reduces the scope for effective control of management decisions. Moreover, cross-participation in the boards of different companies is widespread, and therefore conflicts of interests are likely to arise. In some Swiss multinationals, voting rights are limited,¹¹³ while pension funds are seldom active shareholders, which might explain in part their poor returns (OECD, 2000).

In 1998, the OECD published a code of good governance for corporations (OECD, 1999b) that summarises the practices in Member countries that have proven useful to defend the rights of owners and stakeholders, and also to implement a transparent relationship between shareholders, the governing board and the management of companies. In Switzerland, an initiative was launched by the employers' association to elaborate a code, to be implemented on a voluntary basis, which should be published during the first half of 2002. Unfortunately, the first draft of the code does not always correspond to best practice. In order to be effective, the code should stress those principles that are likely to reinforce share-

holder rights and the independence of the members of the board. The principle of “comply or explain”, by which companies must justify why they do not apply some elements of the code, should also be adopted. Such a rule will be imposed on listed companies by a directive the board of the Swiss stock exchange (SWX) will adopt by mid-April 2002. The authorities could also promote its application by enforcing some of the principles by law. Suppressing limits on voting rights should be a priority. Limiting the participation of a single member in a maximum number of company boards would help reduce conflicts of interest. Likewise, a minimum number of independent members on the board, especially when the board director is also the firm’s manager, would help to enhance its supervisory role, thus reducing the risk of company failure for lack of appropriate scrutiny.

Support to agriculture should be reduced

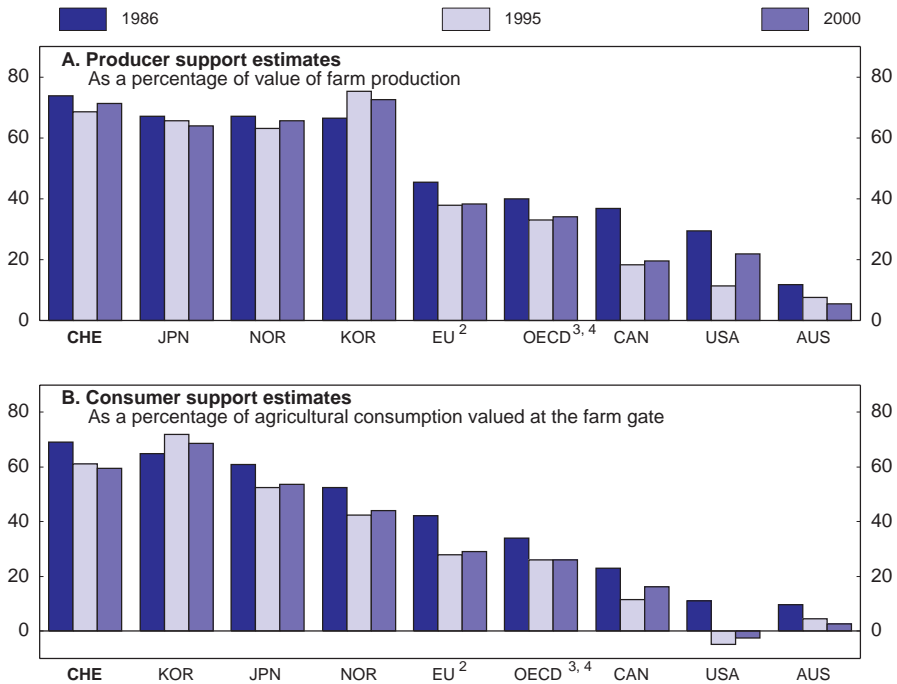
Agriculture represents about 1.5 per cent of GDP and employs less than 3 per cent of employment. The sector has relatively low productivity, especially in mountain areas, and is heavily subsidised. Total aid to agriculture, as measured by product market support (PSE) was 71 per cent of the value of farm production in 2000, barely down from the peak of 73 per cent in 1987¹¹⁴ and was among the highest in the OECD (Figure 21). Employment in agriculture is currently higher than at the beginning of the 1990s.

Agricultural policy is framed and paid for by the Confederation, and implemented in association with the cantons. The policy strategy in recent years has been to reduce price support and increase direct support, in order to maintain incomes, while distorting prices less. The latest policy initiative (Agriculture Policy 2002) started to be implemented in 1998 and has substituted guaranteed milk prices (the largest and most competitive sector) with target prices.¹¹⁵ Direct support has increased from 21.9 per cent of total support in 1990 to 65.6 per cent in 2000, and is expected to rise further to 69.6 per cent by 2003. Direct payments encourage environmentally friendly practices, and have led to a lessening of environmental pressures.¹¹⁶

Although price support has been reduced, the declared objective of Agriculture Policy 2002 to reduce the price gap with the European Union to half the 1998 gap has not been attained, since the gap has remained unchanged at around 40 per cent. This suggests that the progress made in terms of instilling greater competition has been limited at best. In addition, the gap between producer and consumer prices seems to have widened in the last two years due to increasing distribution margins, and cross-border “food tourism” is very active, which points to the need to liberalise wholesale and retail distribution, where the presence of foreign competitors is very small.

A new policy initiative (Agriculture Policy 2007) will deepen the current reform by further substituting direct payments for price support. Although the

Figure 21. **Producer and consumer support estimates for agriculture¹**
Per cent



1. For detailed explanations, see Source.
 2. EU-12 for 1986, EU-15 from 1995.
 3. Austria, Finland and Sweden are included in the OECD totals for all years, and in the EU from 1995.
 4. OECD excludes Czech Republic, Hungary, and Poland for 1986.
 Source: OECD, *Agricultural policies in OECD countries – Monitoring and evaluation*, 2001.

level of aid has not been specified yet, the preliminary goal is to freeze market support in nominal terms and increase direct support in line with inflation. However, considering the progress achieved so far and the high cost of agricultural policy in efficiency and budgetary terms (close to 8 per cent of the Confederation's total spending), the reform is insufficient. Direct payments linked to the use of specific inputs still encourage production, and could be partly used to help those farmers who abandon activity. Moreover, while the pursuit of environmental goals through agricultural practices is commendable, it is only a second best to abandoning inefficient farming. Costs of environmental goals should be identified separately from income support to agriculture. Transparency would help in

determining whether the environmental objectives could be achieved more cheaply through direct action instead of linking them to agricultural production.

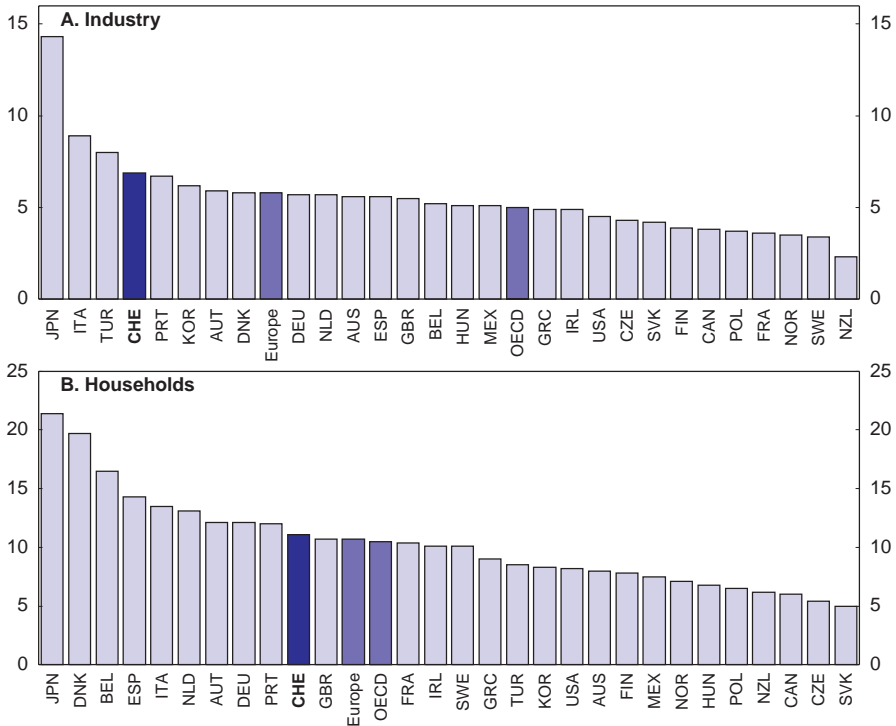
Electricity and gas reform will bring large efficiency gains

The electricity market is characterised by a large number of local and regional monopolies in generation and distribution. There are six large, vertically-integrated electricity companies, along with more than 1 000 companies that operate at the local level. Many of these are publicly-owned, and in some cases their accounts are not clearly separated from those of municipalities. Overall, 71 per cent of the electricity sector is in public hands. Regional and local governments also intervene through regulation and taxation, and very often these taxes constitute a sizeable share of their revenues.¹¹⁷ Even though most of the electricity produced is generated by hydropower and nuclear plants, with relatively low marginal costs, final prices are higher than the OECD average, in particular for business users (Figure 22). The wide price dispersion across regions also suggests that the potential gains of an integrated market could be large.

In 2000, the Swiss Parliament approved a reform of the electricity market that will phase in competition over six years. The law broadly follows the EU's liberalisation approach, including a progressive phasing in, although several EU countries have already liberalised their electricity sectors and all of them will have completely liberalised before Switzerland. The two pillars of the reform are third party access to the electricity network and separation of generation, transmission and distribution, at least from an accounting point of view. The opening of the market will take place in three steps, giving first large customers (30 per cent of total consumption) the provider choice; medium-sized customers (adding up to 50 per cent of the market) will be able to choose three years later, and the other consumers after a further three years.¹¹⁸ Transmission will be operated by a single company, which will ensure equal conditions for all actors (generators, suppliers, traders and consumers) on the highest tension level of the grid. Cantons will be in a position to influence prices in the distribution grid by defining regions where uniform prices for distribution have to be applied and they will also be able to continue to levy user charges. Besides, grid charges will be defined at the federal level in a subsequent regulation (*ordonnance*) already drafted which combines a regulation based on rates of return with a benchmarking approach that could be developed further. As an arbiter, a commission will ensure that access to the grid is granted in an objective and non-discriminatory way, since fair transmission prices and a guaranteed access to available transmission capacity are key elements for effective competition across the entire country.

Compensation payments for stranded costs of current monopoly providers have been discarded,¹¹⁹ though the federal government is ready to provide loans with favourable conditions to those producers that suffer from financial

Figure 22. **Electricity prices for industry and households¹**
 In US cents/kWh



1. In 2001 or latest available year.
 Source: IEA, *Energy prices and taxes*, 4th quarter 2001.

problems under the new competition regime (mainly hydropower plants in mountain areas). The government should ensure that such loans are given under transparent criteria and do not give a competitive advantage to existing operators. The reform will be challenged by a referendum that will probably take place in September 2002. Trade unions oppose it, and the example of the California black outs is often cited by those who oppose liberalisation. Given the large potential for economies of scale, the reform should help to increase efficiency through mergers, while lowering grid tariffs and reducing price differences across regions. It should therefore benefit electricity consumers by lowering prices, as in other countries where reform is at an advanced stage (Box 9).

Box 9. Advantages of the liberalisation of the electricity sector: the international experience

The international experience shows that, when well designed, the liberalisation of the electricity sector should bring clear advantages to the economy in terms of efficiency gains and lower prices. The European Union directive on electricity liberalisation sets specific deadlines for liberalising electricity markets, which in many cases have been brought forward. The cases of the Nordic countries, Germany and the Pennsylvania-New Jersey-Massachusetts area in the United States show that reform of this sector can be a success. Germany, in particular, provides a good case for comparison, since it is a direct competitor to Switzerland in many sectors. Though far from perfect, the reform, implemented in 1998, has resulted in large price reductions for businesses (between 15 and 20 per cent) and more moderate ones for households. Medium-sized enterprises have been able to pool their electricity demand in joint offers in order to obtain better terms of negotiation. Lower prices are not only due to diminishing monopoly rents, but also to efficiency gains, since the need to compete has forced some generators to merge.

In general, to be successful, electricity reform must meet certain requirements (OECD, 2001*a*). These include the actual use by electricity consumers of their freedom to move between suppliers; a clear separation of transmission from generation; the possibility to make bilateral long-term contracts, in order to facilitate stable relationships between providers and consumers; and the existence of a large number of sizeable generators. Electricity transmission remains a (natural) monopoly in most countries. Its regulation and supervision by a strong independent body must ensure that there is no abuse by incumbent operators, and that the benefits of reform reach the final consumer.

Public support for electricity reform in Switzerland and elsewhere has diminished following the electricity crisis in California during the summer of 2000. However, the situation in Switzerland is fundamentally different from that in California, where transmission links with other states are minimal. The European transmission networks are highly interconnected, as shown by the important role of Switzerland as both an importer and exporter of electricity. Eventual production shortfalls could easily be solved by imports from neighbouring countries. Moreover, the current capacity of electricity generation is much higher than demand, and adequate surveillance by the regulator should help to foresee future investment needs. In California, adding to market segmentation, there were also regulatory flaws, like the cap on prices paid by captive customers, the limited independence of the electricity regulator, legal limitations to long-term bilateral contracts and a deficient regulation of the spot electricity market, which was driven by a small number of generators who were able to set prices 80 per cent of the time.

Reform of the electricity market should be complemented by a gas sector reform. The share of natural gas in Switzerland is between 12 and 14 per cent of total energy consumption, less than in other OECD countries, since it is barely

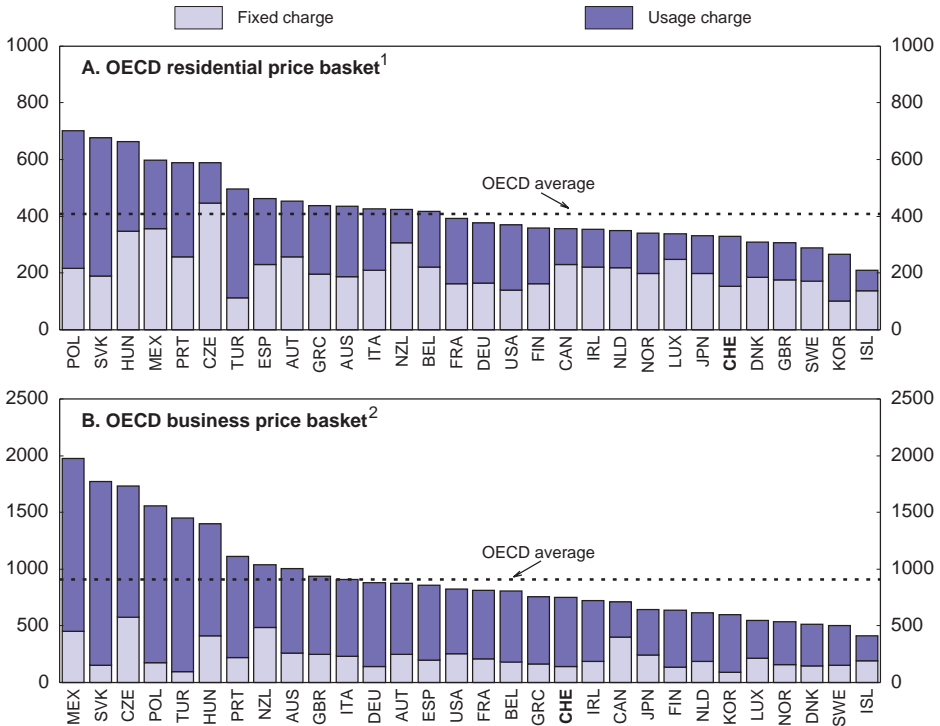
used for electricity generation. Gas is distributed through regional monopolies, which are publicly-owned, and also control the gas importer Swissgas, although the sector is less fragmented than electricity distribution. Pre-tax gas prices are higher than in most EU countries, including for instance Austria, a country with a similar topography. A reform should separate the companies that import, transport and distribute gas, and secure third party access to natural gas imports and to the transmission network. The resulting price reductions would favour final consumers, and could foster the development of gas-fired electricity generation.

Reform in telecommunications should continue

Liberalisation of the telephone market started in January 1998 when Swisscom was separated from the Post Office and partially privatised. Swisscom has remained in public hands (65.5 per cent) and there are no plans for full privatisation. New entrants have started providing fixed telephony services, but their market share is not known since these data are legally protected. Interconnection charges to the Swisscom network are based on long-run incremental costs (LRIC), which is recommended by the OECD, and they have fallen quickly, while final prices are below the OECD average (Figure 23).¹²⁰ Unbundling (physical access of competitors to the local loop) has not been implemented yet, as the law does not oblige Swisscom to do so. An initiative of the sector regulator (COMCOM) to unbundle the local loop will not be possible to apply, as a decision of the Federal Tribunal regarding leased lines has been interpreted as saying that unbundling will require legal changes. On the other hand, broadband data and voice transmission, which are essential for effective Internet use, have been liberalised. Cable networks are highly developed, covering 73 per cent of households. Cablecom, the cable subsidiary of Swisscom, was sold to a foreign operator in March 2000, provides high-speed data transmission services and considers offering fixed telephony services. More than 15 companies compete in the provision of xDSL technologies (which allow for the access to broadband data through traditional copper lines), mostly using Swisscom's network.¹²¹ As in the case of basic telephony, competition in xDSL services would be enhanced if unbundling of the local loop were adopted quickly, allowing providers to improve the range of service and pricing options. Universal service obligations are still being met by Swisscom. The provision of universal service will soon be awarded by concession. If the most favourable of the submitted offers needs to be subsidised, it will be paid by the other operators on a cost basis.¹²² For areas with costly access, the cheapest alternative will be developed (mobile connections in many instances).

In mobile telephony, two companies compete with Swisscom, whose market share has fallen from 100 per cent in 1998 to 67.7 per cent in June 2001. However, mobile prices remain high in international comparison, while penetration of mobile telephony has been fast, reaching 70.2 per cent of the population in

Figure 23. **Telecommunications prices**
In USD PPP, February 2002



1. Including VAT. The usage charge includes a basket of 1200 national calls.

2. Excluding VAT. The usage charge includes a basket of 3600 national calls.

Source: OECD, *Communications Outlook* database.

June 2001. Four licences for third generation mobile telephony were auctioned in fall 2000, the price having been much lower than in countries where the auction had taken place a few months earlier. UMTS providers have made investment commitments for the end of 2002 and 2004, although the uncertainties that surround the development of these technologies make these objectives very difficult to attain.

The authorities should ensure that it is possible to adopt new technologies quickly in a competitive environment. To increase competition in fixed telephony, the unbundling of the local loop should be implemented soon, if necessary by reforming the 1997 law, since it is a key element in the development

of effective competition from new operators. Information on the market share of competitors should also be made available to allow an effective follow-up of competition developments.

The Post Office needs restructuring

In 1998, the Post Office was separated from Swisscom and was given greater management autonomy. The postal service was at the same time partially opened to competition, with the Post Office holding the monopoly for letters and for parcels of up to two kilos. This compares unfavourably with the European Union's liberalisation agenda, where only parcels of up to 300 gr. are subject to the monopoly. Even for parcels of over two kilos, the Post Office retains a large market share (85 per cent), although it has fallen in recent years. The Confederation plans to continue the opening of the market in parallel with the EU, which will liberalise the delivery of all parcels by 2005, although letters will probably remain under monopoly. Following public consultation, the Federal Council will decide in May 2002 on the proposals for reform to be submitted to Parliament. With liberalisation, the Post Office will need to restructure in order to face competition from private companies. Currently Switzerland has a very high density of offices (one office per 2 128 inhabitants), some of them being little used. About 75 per cent of the post offices do not make profits. A recent reform plan includes the reduction in the number of fixed offices and their substitution by mobile offices in order to reduce the current loss, which amounts to CHF 500 million per year. The plan has been strongly contested by trade unions and by groups that defend the presence of a post office in remote areas for regional policy reasons, even though the density of offices projected by the current plan would still be higher than is currently the case in Germany or France. In order to prepare the Post Office for competition and for the likely reduction of prices of postal services, restructuring should be a priority. At the same time, the universal service obligation should be clearly defined in terms of service provided, without prescribing the infrastructure required to fulfil it. The cost evaluation of universal service obligations for liberalised and non-liberalised segments should be separated, so that transparent financial arrangements exist for providing both of them.

Transport policy promotes rail transport

Land transport policy has focused on shifting traffic from road to the railways, especially for freight transport, in order to reduce external costs. This is even incorporated in the federal constitution. Official studies suggest that annual external costs are high, health costs due to pollution alone amounting to more than CHF 3 billion (0.8 per cent of GDP). Traffic volumes passing the Swiss alpine roads have increased from 2 700 trucks per day in 1990 to 5 300 in 2000. The projected increase in traffic can not be met by the current highway network without

putting it under considerable strain.¹²³ The strategy of shifting from road to railway transport relies on the taxation of trucks, together with investment in rail infrastructure and reform of the railway sector. The bilateral agreement on land transport with the European Union has established a new system of taxing trucks, which is now related to the weight of the lorry, the category of truck (discriminating against more polluting vehicles) and distance driven (1.7 cents per tonne-km), thus internalising some of the external costs of road transport.¹²⁴ In exchange, Switzerland has agreed to allow heavier lorries than before (34 tonnes instead of the 28 tonnes since 1 January 2001 and 40 tonnes in 2005). Road will continue to be cheaper than railways, although it is planned that the tax will increase in 2005 and further in 2008 (to 2.5 and 2.75 cents per tonne-km, respectively).

Switzerland has an efficient network of railway transport (OECD, 1995).¹²⁵ With the railway reform that started in 1999, the accounting of the track was separated from the rest of the company and its use was opened to other providers. The state owned Swiss Federal Railways was given more independence, and as a result its accounts have improved in 1999 and 2000 after a marked deterioration in the mid-1990s.¹²⁶ This reform was accompanied by other measures to partially liberalise the sector. Freight transport has been opened to Swiss competitors, and currently more than twenty other companies have licences to operate on the railways' network. Non-regular lines of passenger transport have also been opened, but regular services will not be liberalised. In a few cases, the provision of regional passenger transport services were subject to a tendering procedure. Large investments, mainly in three major projects, are planned. *First*, the ongoing Railway 2000 programme will reduce interconnection times by ensuring that all trains stop at given times (every hour or half an hour) in railway stations. To allow for this, investment will increase traction capacity and improve tracks to reduce transport times between some nodal points. *Second*, two new long tunnels will be constructed through the Alps to considerably increase trans-alpine railway capacity. *Third*, high-speed railway connections between the East and the West of the country, and with foreign lines, will be established.

Switzerland is a transit country for railway transport, and therefore any strategy must be co-ordinated with foreign partners. Some of the problems in service quality stem from border delays and can only be solved through collaboration with neighbouring countries. The harmonisation of the traffic signalling system that will soon be adopted in the European Union provides a good opportunity in this respect. Apart from the planned investments, the competitiveness of the railway *vis-à-vis* road transport is expected to increase because of the already implemented right of access to other railways' network, and the bilateral treaty with the EU, which opens the Swiss railway network to foreign companies. The effective separation of the railtrack from the operations of Swissrail would create a level playing field for competitors, whose market share remains very small (below 1 per cent). Finally, the costs and benefits of road and railway freight transport

should be assessed periodically, and the road haulage tax re-calculated accordingly to adequately reflect its true external costs.

The Swissair "affaire" has been costly

The abrupt fall in air traffic that followed the September terrorist attacks in the United States seriously affected Swissair, the main national carrier, and accelerated the deterioration of its financial performance, leading to bankruptcy. During the 1990s Swissair had expanded quickly in Europe, taking stakes in other carriers in a difficult situation, like Sabena. The company was a high price/high quality carrier that had higher wages than Crossair, the Swiss regional carrier, and suffered from financial difficulties in recent years.¹²⁷ Swissair used Zurich airport as a hub for inter-continental flights, and served an extensive list of destinations world-wide. In response to the Swissair crisis, a rescue plan was designed ensuring that its assets will be grouped with those of Crossair. Basically, federal aid consisted in a loan to Swissair amounting to CHF 1.45 billion to maintain reduced services until 31st March and in a participation of equity capital in the new company of CHF 600 million. The loan has been paid out in instalments. It will not be fully used. Thus the aid will be smaller than indicated in the above mentioned figures¹²⁸ (equivalent to 0.5 per cent of GDP). The public stake in the new Crossair will be 38 per cent.¹²⁹ The new company has retained two-thirds of Swissair's planes, while 5 000 workers were laid-off out of a total of 25 000. With the new carrier Zurich airport will maintain its status as an international hub.

Public support has focused on avoiding a major shock to national confidence, on retaining a national champion, on limiting layoffs and on keeping the international status of Zurich airport, albeit at a high cost. Job cuts have not been larger than those of other carriers after the September attacks, even though most were in a better financial position.¹³⁰ Even after the planned reduction of aeroplanes, the number of aeroplanes of the national flag carrier per inhabitant will remain very high.¹³¹ Furthermore, as pointed out by the new management, the future of the newly created company is not assured, and will depend on the future evolution of traffic demand and on the forging of alliances with other companies.

The infrastructure needs, including the number of aeroplanes of the new company and the status of Zurich airport, would be better determined by market forces. The social costs associated with this approach, though important at an individual level, should not be overrated as the labour market is still very tight and laid-off workers should be absorbed rapidly. The intervention seems to have been larger than needed, generating some tensions with the European Commission, as the Bilateral Agreements signed with the EU (but not in force at the moment of the intervention) forbid public help to air transport companies so as to ensure fair competition within the sector. Moreover, the intervention has created a problem of moral hazard. The authorities should not provide further public aid, and sell the public stake in the new company as soon as possible.

Health expenditure

Main features of the health care system

Switzerland devotes more resources to health care than any other OECD country, except for the United States (Table 19). About one third of health care expenditure, which amounted to 10¾ per cent of GDP in 1999, is financed by a compulsory insurance system, to which households contribute by paying a premium to non-profit private insurers. The cantons and municipalities co-fund hospitals, while the Confederation (two thirds) and the cantons (one third) partly subsidise the premiums of low-income households. The remaining expenditure is

Table 19. **Total health expenditure**
In per cent of GDP

	Level 1999 ¹	Change over period			
		1990-95	1995-96	1996-99	1995-99
International comparison					
Austria	8.2	1.4	0.2	-0.5	-0.3
France	9.3	1.0	-0.1	-0.2	-0.3
Germany	10.3	1.5	0.4	-0.3	0.1
Italy	7.9	-0.6	0.1	0.4	0.5
Japan	7.5	1.1	-0.1	0.4	0.3
Netherlands	8.7	0.4	-0.1	-0.1	-0.2
United Kingdom	6.9	0.9	0.1	-0.1	0.0
United States	12.9	1.3	0.0	-0.3	-0.3
EU average ²	7.9	0.6	0.1	-0.2	-0.1
OECD average ²	7.9	0.6	0.0	0.0	0.0
Switzerland³	10.7	1.7	0.4	0.3	0.7
Swiss health system					
<i>Expenditure by category</i>					
In-patient care	5.0	-	0.2	0.0	0.2
Out-patient care	3.2	-	0.1	0.2	0.3
Non-durable medical goods	1.3	-	0.1	0.1	0.2
Other	1.2	-	0.0	0.0	0.1
<i>Expenditure by financing source</i>					
Compulsory	5.9	-	0.3	0.2	0.6
State	1.6	-	0.1	0.0	0.0
Social insurance	4.3	-	0.2	0.3	0.5
LAMal	3.4	-	0.2	0.2	0.4
Private	4.8	-	0.0	0.2	0.2
<i>Memorandum item</i>					
Share by type: Compulsory	55.3				
Private	44.7				

1. Or latest available year.

2. Unweighted average.

3. OECD Health Data Base source for 1990 and OFS source from 1995 to 1999.

Source: OFS, *Communiqué de presse – 14 (Coûts de la santé)*, July 2001 and OECD Health Data 2001.

financed by other social insurances (old age insurance, accident insurance, disability insurance and military insurance) or directly by households or through private complementary insurance (44 per cent of the total). Health care spending has risen steeply since the early 1990s and its growth has weakened only slightly since the 1996 reform of the health insurance system. This reform, which has strengthened solidarity amongst the insured and helped to deliver high-quality health care to the whole population,¹³² has not had the expected effect of restraining costs, which have continued to rise more rapidly than in other countries. Some observers consider that, given its cost, the performance of the system compares unfavourably with that of many OECD countries (Domenighetti and Quaglia, 2001).

The increase in health care expenditure indicates a lack of incentives for cost containment. The steady growth of health care mostly derives from an increase in compulsory-financed expenditure, which has led to a sharp increase in health insurance premiums.¹³³ Even discounting the effect of the increase in medical cover following the 1996 reform, there has been a large increase in spending on drugs and ambulatory care in the hospital sector. Shortcomings in the system of funding hospitals have become apparent, as it does not encourage cost control and pushes cantons to transfer the burden from hospital stays, which they subsidise, to those which are exclusively paid by the insurers. The rise in insurance premiums resulting from these developments poses problems of equity¹³⁴ and causes claims to increase public expenditure in order to lower the burden of low-income households (Chapter II).

Reforms to restrain health costs are underway...

In response to these difficulties, several reforms have been adopted or are under preparation. For example, measures to curb the rise in pharmaceutical expenditure have been taken and will be reinforced, including a reduction in the price of drugs that have been on the market for a long time and the introduction of a financial incentive to use generics more frequently.¹³⁵ The new remuneration system for pharmacists, who are partly paid on a lump-sum basis (and no longer in proportion to the price of drugs), should also curb pharmaceutical costs.¹³⁶ This fairly complex reform, which will increase the cost of inexpensive drugs but will reduce that of the most expensive ones, should bring savings of CHF 200 to 250 million according to official estimates. Another reform (*Tarmed*) will rationalise the pricing structure for physician services refunded by basic insurance, though not before 2003. This reform will replace the current 26 pricing systems (one per canton) by a single federal scale that will be based on a point system which will depend on the time normally spent with each patient, the professional education of the physician and the type of medical treatment supplied. The money value of one point will be negotiated with the cantons. An agreement on the new system has been reached between insurers and health care professionals. This system, which must be neutral in budgetary terms and still has to be approved by the fed-

eral government, will ensure a better recognition of the true cost of services, and will help reduce the abuses that a payment-per-service system invites. The possibility to adjust the value of the point provided by the new system could also be used to offset a rapid rise in the number of acts.

Three other major reforms are currently discussed by Parliament but are not due to come into force before January 2004. *First*, the government has proposed to overhaul the funding of hospitals, which would no longer be financed on the basis of their operating costs but according to a payment per case. Half of the payment of these services, including those provided to private patients, would be borne by the cantons (as long as the supplying hospital or division is included in the cantonal planning).¹³⁷ Also, hospitals would have to adopt cost accounting to allow for easy comparisons of the cost-effectiveness of services, and to encourage suppliers to become more efficient. This reform, which will place a large additional financial burden on the cantons (of around CHF 500 million a year) in the short term, will however enable hospital costs to be brought under tighter control in the long term. *Second*, contrary to the government, which is against this measure, the Parliament is considering allowing insurers to conclude agreements with all qualified providers of their choice in the ambulatory sector. An end to the obligation on insurers to contract is expected to foster competition between medical providers. *Third*, it is planned to establish a social goal that no household would have to spend more than 8 per cent of its income for health insurance premiums (Chapter II). Subsidies would have to be increased to reach this target.

Of these reforms, the abolition of the obligation on insurers to contract with all qualified practitioners in the ambulatory sector seems the most promising for promoting competition. This measure is likely not only to increase competition between providers in ambulatory care – whose growing number will push up spending in coming years¹³⁸ – but also among insurers, where competition is limited.¹³⁹ The basic insurance market is still highly regulated insofar as insurers are not allowed to make a profit and the prices set at the cantonal level largely apply to all funds.¹⁴⁰ In the current system, insurers strive to select risks rather than to squeeze costs (OFAS, 2001a).¹⁴¹ Managed care systems are underdeveloped (covering only 8 per cent of the insured in 2000) partly due to the lack of supply.¹⁴² On initial estimates, this type of insurance could reduce premiums by 15 to 20 per cent in return for restrictions on the choice of doctor (OFAS, 2000). Currently, a minority of the Swiss population seems willing to accept such a restriction. However, the reform currently before Parliament incorporates a series of measures, which would reduce its impact.¹⁴³

... but further measures are needed to enhance competition

The inertia of the insured, who are reluctant to change their health fund despite the big differences between insurers' premiums¹⁴⁴ (every year only 3 per

cent of the insured change fund) also reduces competitive pressures. Partly due to cultural and sociological factors, this inertia is perhaps also explained by the fear that the premiums of the least expensive funds will rise as they attract “bad” risks.¹⁴⁵ These fears, which are partly exaggerated (the insurers who were the least expensive in 1996 are still so), could be lessened if some shortcomings of the risk equalisation mechanism between insurers were solved. Such a mechanism is necessary for healthy competition, so that the level of a funds’ premiums reflects efficiency and not risk selection. It is therefore important that the system, which is due to expire in 2005, continues to exist. A more refined method of equalising risks would also promote efficiency-based competition and would reduce fears of hikes in premiums. This equalisation could include, for example, health risk criteria (the risk of hospitalisation) and be calculated on a forward-looking basis and not retrospectively, to encourage efficiency (Spycher, 1999).¹⁴⁶ The creation of a high-risk pool financed by a common fund could also reduce the incentives to select good risks (OFAS, 2000).

Although the reforms to curb drug sales are steps in the right direction, they are likely to be insufficient. The new remuneration system for pharmacists, introduced in July 2001, has already shown some effects on restraining the growth of health care cost, but this situation may not last. The administered nature of this system does not bring sufficient competition even though, with the new measures, pharmacists can negotiate part of their own profit margins with some insurers. Likewise, the insured have too little incentive to contain costs. There is co-payment on costs of reimbursed medicines, but usually patients do not have to advance money for payment of medicines up front (“*tiers payant*”), which lowers their price sensitivity when consuming drugs. More stringent value-for-money evaluations of new pharmaceutical products before they are reimbursed would also help to prevent existing drugs being replaced by new, more expensive ones without any real therapeutic value. Furthermore, closer collaboration between doctors and pharmacists could help to curb pharmaceutical expenditure. Doctors, following habits and being influenced by fashion and marketing strategies of pharmaceutical companies, do not always prescribe the most cost-effective drugs.¹⁴⁷ Another possibility would be to curb the promotional activities of the pharmaceutical industry among health professionals. For refunded drugs, promotional expenditure could be penalised by taxation as is the case in France, or capped as in the United Kingdom. On the other hand, it would be desirable to promote medical research that would reduce health care costs.¹⁴⁸

Obstacles to pharmaceutical imports need to be lifted. Large differences exist between the prices of medical products, devices and services in Switzerland and those in neighbouring countries, which seem to encourage medical tourism, especially in border areas.¹⁴⁹ In December 2000, the Competition Commission (COMCO) recommended that steps be taken to encourage the refund of drugs purchased abroad when they are less expensive and do not pose a risk to public

health; this is currently impossible under the basic insurance scheme given the difficulties involved in getting foreign drugs approved (Gugler, 2001).¹⁵⁰ The new law on Medical Products and Devices will facilitate imports of medical products whose Swiss patent has expired. However, the range of drugs that can be imported under less restrictive admission criteria should be widened. A greater amount of imports would help to reduce the prices of medicines, which are higher than in other countries.

Financial markets

A reform of banking supervision is underway

The financial sector generates more than 10 per cent of value added, far above the OECD average, and employs 125 000 people. Two large international banks and private banking coexist with 24 publicly-owned cantonal banks and with credit co-operatives (*Raiffeisenbanken*) as well as almost 100 regional banks, that are much more focused on retail banking and domestic customers. The insurance system is also extremely developed, Switzerland being the country with the highest spending on insurance per capita.¹⁵¹ During the past decade the largest banks have consolidated and invested heavily abroad. At the same time, cantonal banks suffered from the real estate crisis and the prolonged stagnation of the domestic economy. In recent years they have become more professional and, in a few cases, were partially privatised. They have faced increased competition from co-operative banks that have reformed themselves during the 1990s and target the same clients.

Recent policy initiatives regarding financial market regulation include plans to implement a joint supervision for all financial intermediaries, following the recommendations of the Zufferey report (Zufferey, 2000). Currently banks, mutual funds, brokers and some financial infrastructure intermediaries are supervised by an independent body, the Banking Commission, whereas pension funds are controlled by the Department of Interior and insurance companies by the Federal Office of Private Insurance. The report calls for a joint supervision in a loose form as in some Nordic countries, and has been well received by the authorities. Some collaboration already exists between regulators, and the new legislation will make it more systematic.

Another issue dealt with by the Zufferey report is the control, for prudential reasons, of financial intermediaries grouped together in the *parabanking sector*, in particular independent asset managers and other intermediaries. The money laundering safeguards of such intermediaries (about 6 000 entities) are in place. The effectiveness of the fight against money laundering, which touches in particular this sector, has been scrutinized by a special report by the National Council (Commission de Gestion du Conseil National, 2001). The 1998 Money Laundering

Act is strict, as it forbids anonymous bank accounts and covers all financial intermediaries. It is also strict on documentation requirements and transparency. Intermediaries are either put under the direct control of the Money Laundering Control Authority (MLCA) or monitored by twelve Self-Regulation Organisations, which in turn are supervised by the MLCA. Financial intermediaries are to report suspicious cases to the Money Laundering Reporting Office Switzerland (MROS), the financial intelligence unit. The latest annual report of the MROS reveals that three years after the implementation of the law the collaboration of many financial intermediaries is insufficient, especially in the parabanking sector, and that because of numerous delays none of the cases reported to the tribunals has yet resulted in a condemnation. The resources of the MLCA are still limited in relation to the size of the sector despite a recent increase.¹⁵² The effectiveness of the principle of self-regulation will have to be analysed as soon as sufficient experience has been gathered. Moreover, the extension of prudential supervision to additional financial intermediaries, as recommended by the Zufferey report, should be considered.

Taxation of capital income will be negotiated with the European Union

Swiss-source capital income (interest and dividends) is subject to a 35 per cent withholding tax, which is refunded to resident taxpayers if they report the respective income and investments in their tax returns. Non-resident investors have to submit a claim for refund, duly certified by the tax authorities of their country of residence. Depending on the relevant Double Taxation Treaty, the withholding tax will be refunded. Capital income from foreign sources is not subject to the Swiss withholding tax – although it may be taxed in a foreign jurisdiction – but has to be declared by residents in their ordinary tax declaration. The long-standing tradition of bank secrecy and the use of foreign investment mandates (so-called fiduciary investments¹⁵³) enable non-residents to avoid withholding taxes. The fiduciary accounts may be particularly attractive to non-resident individuals unwilling to be taxed on capital income in their countries of residence, as they can evade taxes in their country of residence and are not subject to a withholding tax in Switzerland or in the country in which the investment is made through the fiduciary account.¹⁵⁴ In Swiss law, tax evasion is not a crime and does not lead to the lifting of bank secrecy; it may only be lifted in cases of tax fraud.¹⁵⁵ The right of tax and law enforcement officials to extract bank information, for their own tax purposes or for a treaty partner, on matters that do not relate to a suspected tax fraud is extremely limited.

In 2000, the European Council agreed in Feira to the introduction of measures providing for automatic exchange of information on interest on debt claims of any kind.¹⁵⁶ Withholding taxes are permitted during a transition period of seven years in Austria, Belgium and Luxembourg. The adoption of a proposed directive is contingent on “equivalent measures” being adopted by key third countries, including

Switzerland.¹⁵⁷ The Swiss government has declared its readiness to start negotiations on possible “equivalent measures” based on the implementation of a withholding tax, but does not want to touch bank secrecy. The Swiss government has declared there would be no major technical obstacles to the implementation of a withholding tax at the level of the paying agent in the Swiss financial system if this results from a bilateral agreement with the European Union and its member states (Département Fédéral de Finances, 2001). The Finance Ministry also argues that the EU draft Savings Directive is far from perfect because it is restricted to interest income (dividends are not included) and to individuals (not legal entities), and that if it is not applied in other countries it may induce investors to shift their capital abroad. Discussions with Switzerland regarding the adoption of equivalent measures are still at a preliminary stage.

The implementation of a capital income tax on foreigners or the exchange of bank information have raised some fears about their impact on the financial system.¹⁵⁸ Total financial assets in banks amounted to CHF 2.1 trillion at the end of 2000, while foreign liabilities represent CHF 1.2 trillion. Off-balance sheet customer portfolios managed by banks totalled CHF 3.7 trillion in 2000, of which more than 2 trillion for foreign holders. Overall, foreign bank liabilities and portfolios owned by foreigners add up to almost ten times Swiss GDP. Annual profits of banking institutions amounted to CHF 20 billion in 2000, or 6 per cent of GDP, although this figure excludes the parabanking sector. The size of the banking sector reflects to a large extent the cumulated expertise of private banking and the political stability of Switzerland. Strict banking supervision, together with capital ratios generally above legal requirements, make investment in the country very attractive to foreigners. A change in the current regime of capital taxation is unlikely to have a strong impact on the status of the Swiss financial industry, and to the extent that there is an impact on the Swiss financial industry, it could be partly compensated by efficiency gains in the sector.

Cantonal banks have weathered the crisis of the 1990s

Cantonal banks have been created by cantonal governments and operate mostly on a regional basis. They escape some provisions of the banking law with respect to regulation of reserves and civil responsibilities, and are also subject to diverse conditions due to different cantonal legal frameworks. A 1998 amendment to the banking law re-defined a cantonal bank, allowing cantons to reduce the public stake from 50 per cent to 33 per cent while maintaining their status, and withdrawing the obligation of the regional government to back the deposits of the bank. Since then, some cantons have changed the status of their cantonal bank from “establishment” to limited-liability company, which can be privatised, although recent proposals to do so have been successfully challenged in referendums.¹⁵⁹ All governments continue to have a majority in their cantonal banks, and most of them still own 100 per cent of the equity.

Cantonal banks operate mainly as universal banks, although historically they have focused on financing construction and SMEs. In the mid-1990s they underwent a period of serious difficulties following the prolonged stagnation of activity and the crisis in the real estate sector. Loaded with a high proportion of problem loans, some of them had to be bailed out by their regional governments (Bern, Geneva,¹⁶⁰ Vaud), while public money was injected in those of Jura and Valais. In two other cases the cantonal banks have been sold to other financial intermediaries (Solothurn and Appenzell-Ausserrhoden), therefore losing their status of cantonal banks. Responding in part to increased competition from co-operative banks, which restructured themselves and improved their performance over the 1990s, some cantonal banks have expanded to other regions, attracted by the lucrative business of private banking. Some have even started to operate abroad, although with limited success. Management practices have also evolved, with increased professionalism and the pooling of back offices and computer networks.

Regional governments not only own cantonal banks but continue to guarantee their deposits, giving them a competitive advantage as they do not need to pay any risk premium on deposits. Furthermore, there is evidence that the loan policies of cantonal banks tend to favour SMEs and poor households with favourable interest rates or lower demands for guarantees, which partly explains the problems suffered by cantonal banks in the 1990s. The arguments frequently used against privatisation of cantonal banks in referendum debates stress the fact that being private they would stop taking a special interest in helping local companies and households with special conditions. Cantonal banks have, for example, in line with other banks, helped in the recent Swissair crisis by providing funds for the new company. Such practices are not the best instrument to implement social or regional policy goals. These objectives could be achieved more transparently by other means, which would allow an assessment of their cost.

Internationalisation of the Swiss equity market

The Swiss exchange has been quick in reacting to increasing internationalisation of equity markets in Europe by joining in July 2001 Tradedipoint (a London-based electronic trading system that includes the largest investment banks in Europe) to create Virt-X, a new electronic stock trading platform, which integrates settlement and clearing in the same system.¹⁶¹ The Swiss Market Index (SMI) is the index for Swiss “blue chips”, which are now traded on Virt-X. While SMI stocks are listed in Switzerland, they are traded only in London, which allows them to have access to a large pool of liquidity. Supervision of trading is carried out by the FSA in the United Kingdom. Only small and medium-sized Swiss companies continue to be traded on the Swiss exchange, together with derivatives. Even though Swiss blue chips provide substantial liquidity, the success of the merger has been lim-

ited so far, as the non-Swiss securities quoted in the new platform (a large number of large European companies) trade at the same time in other markets. Foreign brokers, including those of the large banks that own a large part of Virt-X, continue to settle most deals in alternative markets.¹⁶² The main advantage of the new market is the reduced level of transaction costs,¹⁶³ as the creation of Virt-X has also been accompanied by legislative changes on the payment of the stamp duty (*droit de timbre*) which has to be paid on all transactions of Swiss shares and is equivalent to 0.075 per cent of the traded value. Foreign traders (or Swiss traders that decide to become members of the new market and open an office in London) have been exempted from the stamp duty, leading to a competitive advantage that could be removed by the elimination of the tax.

Labour market

The 1997 reform has helped to reduce structural unemployment

Thanks to a well-functioning labour market, Switzerland has traditionally enjoyed a very low level of unemployment. Employment protection legislation does not impede hiring, labour is taxed at relatively low rates, there is no legal minimum wage and decentralized wage setting benefits from a long-standing tradition of consensus amongst the social partners. Cyclical swings in activity have usually been accommodated through changes in the foreign labour force. The movement of women in and out the labour force has also acted as a shock absorber, although the strength of this mechanism has diminished substantially during the past decade. Despite a well-functioning labour market, the prolonged stagnation during the 1990s increased the incidence of unemployment. The unemployment rate rose from 0.5 per cent in 1990 to 5.2 per cent in 1995, not only for cyclical reasons, but also because structural unemployment increased. This is largely a result of the extension of unemployment benefits at the beginning of the decade from a maximum duration of 85-250 days (depending on the time worked previously) to 520 days for all workers.

The rise in unemployment prompted a reform of unemployment benefits. Benefits were linked to the participation in active labour market programmes (ALMPs), the so-called "activation principle", reducing the disincentives to work created by the insurance scheme.¹⁶⁴ Under the new system, which was implemented between 1996 and 1997, "passive" unemployment allowances were limited to 150 days for workers under age 55, although additional payments for up to a total of 520 days were given if participation in ALMPs could not be provided by the public employment services. Together with the new activation principle, ALMPs were re-designed, while the network of cantonal placement offices was also subject to a reform, amalgamating more than 3 000 communal offices into 150 regional offices (Chapter II). These measures were subject to a preliminary evaluation by indepen-

dent experts, which were summarized in the previous *Survey* (OECD, 2000). The conclusions of the study were mixed,¹⁶⁵ indicating that combined measures are better than single interventions, and pointing to the need of targeting ALMPs carefully to ensure their cost-effectiveness. Overall, the net effect of the reform seems to have been positive, resulting in a drop in the estimated rate of structural unemployment from around 2¾ per cent in 1997 to around 1¾ per cent in 2000 (as measured by the NAIRU).¹⁶⁶ Moreover, the proportion of long-term unemployment to total unemployment fell from 30 per cent to 16 per cent.

The financing of unemployment insurance is being reformed

While unemployment has become low again, a revision of the unemployment insurance law (LACI) has been approved to deal with the financial problems of the scheme.¹⁶⁷ Due to rising unemployment and the lengthening of benefit payments, the insurance fund suffered from continuous deficits in the second half of the 1990s and the debt of the scheme rose to CHF 8.8 billion in 1998 (more than 2 per cent of GDP). Some measures were taken to reduce it, including the increase of contribution rates from 2 to 3 per cent, and a special solidarity contribution of a further 2 per cent by well-paid workers (cut back to 1 per cent between 1996 and 1999). These measures allowed for a reduction of the debt to CHF 5.7 billion at the end of 2000, and it is expected to disappear by 2003. The reform will implement a permanent financing arrangement for the fund, avoiding pro-cyclical measures like the temporary lifting of contributions. It will consist of the following elements:

- The contribution rate will be reduced from 3 to 2 per cent of wages.
- The special solidarity contribution will be suppressed.
- The Confederation and cantons will contribute 5 per cent to the cost of the scheme (about CHF 400 million).
- Duration of benefits will be cut again from a maximum of 520 days to 400 days (except for those older than 55, and for workers in cantons where the unemployment rate rises above 5 per cent if the canton decides to extend the scheme¹⁶⁸), and the minimum contribution period required for receiving benefits will be raised from the current 6 to 12 months.

These measures should keep the fund in equilibrium over the business cycle if unemployment stays at 100 000 persons on average. The reform, which is likely to be challenged by referendum, would improve public finances.

At the same time, the new measures will have some positive effect on job search incentives and therefore on structural unemployment. Apart from their social role of sustaining incomes, benefits have some positive impact in the matching process, since they give workers enough time to find a suitable job. However, they are

costly and can also have perverse effects if passive benefits last too long, generating a vicious circle of long-term unemployment and loss of skills, especially as long durations are combined with the current replacement rates of 70 to 80 per cent, which are high in international comparison. The experience in other countries shows that there is a negative correlation between passive benefit duration and structural unemployment,¹⁶⁹ and this is corroborated by studies for Switzerland (Sheldon, 1997). To avoid unemployment traps, the authorities must strictly apply the “activation principle” and must ensure that ALMPs are well targeted.

Female employment-population ratios are not as high as they seem

Activity rates in Switzerland are the highest in the OECD, at 82.2 per cent of the working age population¹⁷⁰ in 1999 against an OECD average of 65.9 per cent. Female participation rates are also far above the OECD average at 71.8 per cent (55.4 per cent for the whole OECD). However, there is also a high proportion of part-time employment (close to 30 per cent of total employment), which has grown considerably during the 1990s and, as in other countries, affects women more than men. If female employment is adjusted by the effective time worked, the resulting employment-population ratio (the proportion of women aged 15 to 64 that are employed) is significantly reduced, from 71.8 per cent to 50.8 per cent, which is close to the average level of a sample of European countries (Table 20).

Table 20. **Female employment-population ratios¹**

Percentage, 1999

	Unadjusted		Adjusted by hours ²	
	Ratio	Rank	Ratio	Rank
Norway	73.8	1	58.9	3
Switzerland	71.8	2	50.5	7
Denmark	71.6	3	58.0	5
Sweden	70.9	4	58.2	4
United Kingdom	64.9	5	49.3	8
Finland	63.5	6	59.0	2
Netherlands	61.3	7	38.3	13
Austria	59.7	8	52.2	6
Portugal	59.4	9	59.1	1
Germany	56.5	10	45.4	9
France	52.9	11	45.4	10
Ireland	51.3	12	42.3	11
Belgium	50.2	13	41.1	12
Spain	38.3	14	37.8	14
Italy	38.1	15	34.0	15

1. The employment-population ratio is the number of persons employed divided by the population aged 15-64.

2. The adjusted measure is calculated as the total weekly usual hours divided by 40 and by the working age population.

Source: OECD based on Labour Force Survey data.

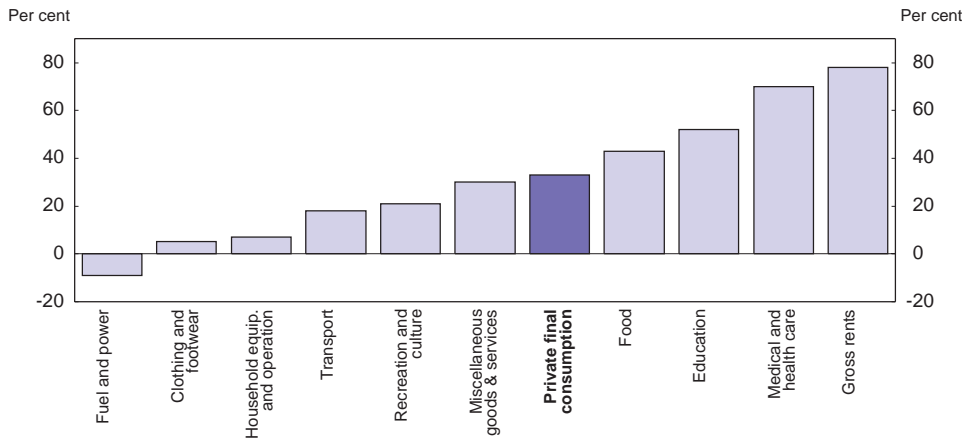
The widespread incidence of part-time employment can in part be linked to cultural factors and can be voluntary; this is desirable insofar as it provides work opportunities to those who want to work less time. However, a large part of the part-time employed would like to work more hours. In 2001, 8.3 per cent of the labour force (about one third of part-timers) declared that they would like to work more hours than they actually do, a proportion that has barely changed during the last ten years. Most of them are women, which points to a scarcity of child-care facilities that makes it difficult for women to work longer hours (Chapter II). These full-time equivalent employment figures suggest that the very low unemployment does not necessarily imply a constraint on future growth, as the growth potential of the economy could be enhanced by providing better opportunities to those who want to work more hours.

Estimation of the benefits of reform

Structural reforms would induce important macroeconomic benefits. Better incentives to improve efficiency would increase total factor productivity, stimulate innovation and reduce margins in those sectors still enjoying monopoly rents. The potential impact of reforms through price reductions and higher demand and production is analysed here in four specific sectors: agriculture, health care, electricity and gas. Health care and production, processing and distribution of agricultural products whose share in total value-added is slightly above 20 per cent of GDP, are among those with high prices as compared to other countries, in the first case partly as a result of difficulties in regulation and in the second case as a result of limited international competition in several areas (Figure 24).

The methodology used here follows that developed by the OECD in its study on regulatory reform (OECD, 1998).¹⁷¹ The analysis is conducted in two steps. The first consists of evaluating the impact of reforms in a static way. The effects are calibrated in terms of price reductions in these sectors, based on the price gaps with other countries and the effects of reforms observed there. In particular, the price reductions simulated are 15 to 25 per cent in agriculture and health, 10 to 20 per cent in electricity and 10 to 15 per cent in gas (Table 21). Based on these hypotheses, the total impact on the overall producer price level is estimated using an input-output table to take into account the effect induced on the rest of the economy through intermediate consumption.¹⁷² This total price effect amounts to more than 4 per cent under the hypothesis of large price reductions (case 1 in the table), but could be even higher on the consumer price index, reaching 6½ per cent. On this base, and making an assumption about demand elasticities, the static effects of structural reforms on demand and production are estimated.¹⁷³ For the whole group of sectors considered, the efficiency gains and the improvement of resource allocation could raise GDP by between 2 and 3 per cent, even if the adjustment in some sectors, like agriculture, would result in employment losses.¹⁷⁴

Figure 24. **Relative price levels between Switzerland and the EU¹**
1999



1. Defined as the percentage difference between the price level in Switzerland and the average price levels in EU countries.

Source: Eurostat.

Table 21. **Long-run effects of a regulatory reform in four key sectors of the economy**
Deviation from baseline, per cent

	Value added share	Case 1	Case 2
Direct price reduction assumed			
Agriculture and processed food	8	-25	-15
Electricity	1¼	-20	-10
Gas	½	-15	-10
Health	10¾	-25	-15
Total four sectors	20½	-24½	-14½
Estimated price effect on the total economy ¹	100	-4¼ to -6½	-2½ to -4
Direct demand effect ²		2 to 3¼	1¼ to 2
Estimated total macroeconomic impact³			
Output		7¼	4
Domestic demand		6	3½
Employment		1¾	1
Real wages		6½	4
Inflation ⁴		0	0
Debt to GDP ratio ⁴		-8½	-6

1. The overall price effect is computed using the input-output tables and the weight of the different sectors in the CPI.

2. The direct demand effect resulting from the price fall is based on an average price elasticity of demand of -0.5.

3. The overall macroeconomic impact of structural reforms is estimated using the INTERLINK model of the OECD. In the simulation carried out over a 10-year period, monetary policy is assumed to maintain price stability while ensuring that actual output rises in line with increased potential production due to the efficiency gains resulting from the reforms.

4. Percentage points.

Source: OECD estimates.

This static estimation underscores the total impact on the economy, since it does not take into account the dynamic interactions across sectors. Hence, the second step of the analysis estimates indirect effects using the INTERLINK model of the OECD. The effect of these price reductions and efficiency gains favours a virtuous circle of cost reductions in all sectors, gains in international competitiveness, higher real incomes and lower interest rates. The cumulated impact of the direct and indirect effects on GDP could be between 4 and 7 per cent over a period of 10 years.¹⁷⁵ These gains, which are close to the estimated gains for other European countries, are probably a lower bound, as they include reforms only in a limited number of sectors and do not take into account the overall effects of an improvement in the competition policy framework.

Notes

1. The wealth effect on households' consumer behaviour is not very strong in Switzerland (Case *et al.*, 2001). Moreover, in the 1990s, the increase in household wealth due to the rise in financial markets was offset by a fall in property prices. There is some uncertainty surrounding the trend in the savings ratio in 2000 and 2001, the latest available data being for 1999.
2. Volume growth of investment in machinery and equipment goods reached 7¼ per cent per year on average between 1993 and 2000, which was comparable to the performance of Spain and better than the average of the major European countries.
3. The introduction of the heavy lorry charge prompted the replacement of old polluting trucks with new, smaller and more environmentally friendly models so as to lower or escape the tax (trucks under 3.5 tonnes are exempt).
4. Progress has recently been made in the presentation of the national accounts, with the exclusion of purchases and sales of precious stones and metals and art objects, whose extreme volatility had hitherto distorted changes in the figures for exports, imports and changes in inventories in the quarterly statistics.
5. The fall in tourism exports in 2001 is also attributable to the exceptional results posted in 2000, when many North American tourists passed through Switzerland to go to Italy (for the Holy Year) and to Germany (for the Passion Play).
6. The increase in exports of chemicals and pharmaceuticals reached 7.5 per cent in real terms in 2001. According to a study of the sector by Basel Economics Ltd., the restructuring carried out in the 1990s through industrial concentration and specialisation in leading edge areas of high value-added biotechnology helped to achieve average productivity growth of 9 per cent per year between 1995 and 2000, *i.e.* two times higher than in the other main OECD countries. In 2000, the chemical and pharmaceutical industry accounted for 5 per cent of GDP in Switzerland, compared with 2 per cent on average in the United States and the major European Union countries (Kübler and Koellreuter, 2001).
7. The apparent inconsistency in these developments concerning volume, price and nominal trade variables is due to the new presentation of the quarterly national accounts, which excludes purchases and sales of gems, precious metals and objets d'art from import and export statistics.
8. The terrorist attacks of 11 September are expected to give rise to insurance payouts of an estimated CHF 3.5 billion. The final amounts, which are still unknown, are not included in balance of payments data. These payments, which will be made out of the insurance companies' reserves, should in principle be treated as current transfers. Insofar as they exceed variations to the insurance companies' reserves, they will also affect flows of financial services in the current balance and thus GDP.

9. Net factor income increased from 3½ per cent of GDP in 1994 to nearly 10 per cent in 2000.
10. There are two main employment indicators in Switzerland: employed labour force statistics (SPA0), based on the labour force survey, and employment statistics (STATEM), which are based on a survey of firms in the secondary and tertiary sectors only and do not include the self-employed, home workers and private household employees. The growth in the STATEM figures was larger than those of the SPA0 in 1999 and 2000, and smaller during the period 1991-98 and in 2001. The STATEM does not cover some forms of atypical employment such as occasional jobs or jobs which are only for a few hours. These types of activity exhibit a counter-cyclical pattern, increasing when the labour market situation deteriorates.
11. The most recent national accounts data concerning wages stop in 1999. The data for 2000 will become available during summer 2002.
12. Between 1992 and 2000, the average annual increase in per capita real wages, as measured by national accounts data and the employed labour force, was 0.6 per cent, while the average annual increase in labour productivity was 1.0 per cent.
13. Methodological changes introduced in the consumer price index in May 2000 account for the more erratic pattern of inflation. The latter partly reflects the method of collecting textile and clothing prices, which now take into account price reductions during the sales.
14. See, in particular, OECD (1999a).
15. A monetary policy objective is not included in the current formulation of the law, which dates from 1953, since it refers only to conducting monetary policy in the "general interest of the country". A revision of the law which is under discussion includes the following objective for monetary policy: "The SNB shall pursue a monetary policy serving the overall interest of the country. It shall ensure price stability. In doing so, it shall duly take into account the development of the business cycle."
16. The main traditional macroeconomic model is of neo-keynesian inspiration. It allows for an easy interpretation of economic relationships and it is based on behavioural equations (Stalder, 2001). The model includes some elements of rational expectations, and models the exchange rate. The SNB also uses structural VAR (vector-autoregressive) models which are identified by assuming that money is neutral in the long run.
17. Operationally, the interest rate is set via overnight to three-week repo rates.
18. In the case of interest rates, the trend rate is the long-term average. For exchange rates, it is taken as difference of the real effective rate with respect to a linear trend, which is increasing at 0.4 per cent per year.
19. The trend appreciation was not strong enough to equilibrate the current account. Net foreign assets have continued to accumulate, rising from CHF 349 billion in 1995 to 485 billion in 2000.
20. Simulations suggest that during such episodes, the policy reaction of the SNB has to be quick and decisive, since delayed action may have undesirable consequences for the economy in the medium term (Laxton and Prasad, 2001).
21. For example, the franc only appreciated by 1.9 per cent in effective terms as compared to 18 per cent between the end of 1992 and the end of 1995.

22. A simulation with the SNB structural model shows that an effective appreciation of 10 per cent of the franc during 14 quarters, not compensated by interest rate reductions, may reduce growth by up to 2.4 percentage points with respect to the baseline.
23. The Danish rejection of the Maastricht treaty led to a crisis in the European Monetary System (EMS) after June 1992. The SNB reacted immediately by relaxing its monetary policy. The EMS partially collapsed in September 1992. Following the monetary policy easing, the money market interest rate decreased rapidly from 9 per cent in mid-1992 to 4 per cent at the end of 1993.
24. The federal budget surplus of over 1 per cent of GDP in 2000 (financial accounts basis) did not, however, translate into a reduction in federal debt. The latter in fact increased as a result of balance sheet transactions totalling some CHF 12 billion (3 per cent of GDP), arising from the funding of overdrafts of the pension funds of the Confederation and the federal railway company, and from loans to finance major railway projects.
25. The report concerning the 2000 State account (AFF, 2001) contains an analysis of revenue forecasting errors in 2000. An evaluation of federal revenue forecasting methods was the subject of a report by the Federal Polytechnic School of Zurich (KOF, 2001).
26. An underestimation of projected dividend withholding tax, and of the direct federal tax on legal entities, was detected. However, these forecasts are based on assumptions that are difficult to establish as regards corporate profit trends, the volume of share repurchases, dividend distribution practices and changes in the nominal value of securities.
27. This reform aims at the harmonisation of tax bases and deductions for the cantonal and federal income and wealth taxes. The Act provided for an eight-year transitional period ending in 2001 (OECD, 1999a). The Swiss government has however ruled out a harmonisation of tax rates across cantons. The unified framework will increase transparency and facilitate the comparison of tax regimes in different cantons.
28. The 2001 budget objective capped the deficit at roughly CHF 1 billion or $\frac{1}{4}$ per cent of GDP.
29. The other supplementary outlays as compared to the initial budget include subsidies to the Expo 02 project, contributions to the federal pension fund and reductions in health insurance premiums.
30. New regulations governing the computation and collection of dividend withholding tax provide a partial explanation of the low yield of the tax in 2001, which ought to be only temporary. This change could also be considered discretionary, although its effect on the structural federal budget balance is difficult to quantify.
31. The financial accounts of the Confederation do not incorporate the balance on special federal funds such as the fund for major railway projects, which are however included in the revised financial statistics.
32. The "Budget Objective 2001" stipulates that if the objective is not achieved, a majority vote in Parliament may defer its realisation for no more than two years.
33. The CHF 1.2 billion rise in the social security balance (0.3 per cent of GDP) seems large in the official forecasts, given that growth is projected to be close to potential.
34. The debt containment rule imposes a spending ceiling equal to estimated structural revenue (Chapter II).

35. By way of illustration, the spending cuts carried out in the context of the 2002 budget discussions in order to offset the exceptional air transport subsidies have been estimated at CHF 250 million.
36. The plan contains expenditure and revenue based on decisions that had been taken by the Federal Council and at least one of the houses of Parliament prior to August 2001.
37. 80 per cent of contributions to the old age insurance scheme come from the insured and 20 per cent from government (17 per cent from the Confederation and 3 per cent from the cantons). In order to meet the additional pension costs arising from population ageing, the VAT rate was increased from 6.5 to 7.5 per cent in 1999. The Confederation had been able to obtain a 17 per cent share of the additional revenues to finance its required contribution to the scheme.
38. To take effect, this decision has also to be approved by the Council of States.
39. In contrast to the initial proposal, discussions now foresee extending second-pillar cover to low-income earners and a smaller cut in the annuity conversion rate from 7.2 to 6.8 per cent between now and 2023. The overall cost of these changes exceeds CHF 0.5 billion.
40. The first “generational accounting” study carried out for Switzerland for the year 1997 confirmed that the country’s long-term budgetary outlook compared favourably with that of other OECD countries for which similar studies had been undertaken. The analysis showed that current indebtedness of 36 per cent would increase by some 40 points, to 75 per cent of GDP, if the pension rights of generations born after 1997 are taken into account. The initial proposals of the 11th revision of the first pillar of old age pension system would help move towards a policy of greater inter-generational equity (Elias, 2001).
41. These projections are consistent with those published in the OECD *Economic Outlook*, No. 71.
42. The Purchasing Managers’ Index (PMI) is (like the one used in the United States) based on the replies of the purchasing managers of large industrial companies concerning their performance during the current month compared with that during the previous month. Recent changes in this index suggest that the worsening in the economic situation has slowed.
43. The Swiss franc/euro parity averaged 1.53 during the first half 2001. In mid-April, the Swiss franc traded at 1.47 per euro representing an increase of 4 per cent against the European currency.
44. Feld and Matsusaka (2001) have investigated these institutional settings at the cantonal level. Where mandatory referenda are provided for by the constitution, new spending projects are initially approved by Parliament. If the cost of the project exceeds a predetermined amount – the spending threshold – the project must be approved by majority vote in a referendum. In the 17 cantons where mandatory referenda exist, thresholds ranged from CHF 150 000 to CHF 25 million in 1996. Optional referenda also existed in 20 cantons in 1996. After collecting signatures from a certain number of citizens, voters can also call for an optional referendum in all cantons. It allows citizens to propose an entirely new spending law that comes into effect if approved by a vote of the electorate.
45. Feld and Kirchgässner (forthcoming) also show that government expenditure is, *ceteris paribus*, lower in a direct than in a representative democracy and that approval of bud-

- get deficits by mandatory or optional referenda keeps debt-to-income ratios in Swiss municipalities lower.
46. For a description of the health and pension systems, see the special chapter "Ageing: the Swiss case" in OECD (2000).
 47. Mandatory private social expenditure schemes also exist in other OECD countries (*e.g.* Australia, Belgium, Germany, the United Kingdom and the United States), though their size typically ranges from 0.5 to 1 per cent of GDP, with the notable exception of Korea where they account for more than 5 per cent of GDP (OECD Social expenditure database).
 48. The maximum duration of unemployment benefits was increased from 250 to 520 days between 1993 and 1997. Furthermore, it is estimated that structural unemployment rose from 0.8 per cent in the mid-1980s to 1.8 per cent in 2000.
 49. The strong rise in social benefits could partly reflect abuses. Invalidity pensions provide an illustration. Although the share of invalidity pensions is relatively small compared with the rest of the OECD, the number of recipients has risen by an average of 4.3 per cent per year between 1993 and 1999, whereas it fell in other countries (Message to parliament concerning the unemployment insurance law, LACI 2001).
 50. Unlike the municipalities, the Confederation and the cantons were directly affected by the increase in unemployment expenditure. Between 1993 and 1998, their loans to the unemployment insurance system totalled $2\frac{1}{4}$ per cent of GDP.
 51. Ageing-related expenditure could increase on average from 6 to 7 per cent of GDP in the OECD countries by 2035-40 (OECD, 2001*e*). The Swiss projections, which stop in 2025, *i.e.* before the projected peak in the dependency ratio towards 2035, understate the expected increase in ageing-related expenditure. However, these projections seem a little pessimistic since they are based on prudent growth projections (Dang *et al.*, 2001).
 52. Federal subsidies finance 17 per cent of the expenditure of the first pillar of the old-age insurance system (the cantons' share is 3 per cent) and 37.5 per cent of invalidity pension expenditure. Social protection outlays account for a quarter of the Confederation's total expenditure. However, the bulk of public health care spending is financed by the cantons and municipalities.
 53. The 1998 stabilisation plan contained a raft of expenditure cuts equivalent to 0.5 per cent of GDP and affecting public transport, defence, social protection and transfers to the cantons.
 54. Almost all the cantons have constitutional constraints that require them to balance their budgets, which sometimes take the form of constitutional obligations. While these constraints are not always binding, in five cantons, taxes must be raised if the deficit exceeds a certain level.
 55. The Federal Council is required to raise (or to lower) the rate of contribution if at the end of two years running the fund's reserves are below (or above) 2.5 per cent of wages subject to contribution. In 1990, the contribution rate was cut to 0.4 per cent of the wage, and then raised to 2.0 per cent in 1993 and 3.0 per cent in 1995.
 56. On the revenue side, the biennial system of direct taxation in force up to 2001 was also frequently criticised for its destabilising effect, especially during cyclical downturns (Amman, 1995).
 57. Whereas changes in government consumption or investment have a direct impact on GDP, variations of government transfers might be partly saved by the beneficiaries

- rather than spent completely, which will dampen their effect on activity. This is particularly the case of transfers to households. In the short term, fiscal multipliers of public investment or consumption are significantly higher than those of transfers.
58. Informal co-ordination takes place between the Confederation and the cantons for the preparation of the budget since part of the cantons' revenue consists of federal transfers. The macroeconomic assumptions used by the various levels of government are also broadly consistent.
 59. The rule provides that the federal deficit must not exceed 2 per cent of revenue, equivalent to $\frac{1}{4}$ per cent of GDP.
 60. The new constitutional articles only indicate that expenditure cannot exceed a ceiling determined on the basis of projected revenues and taking account of the cycle. Besides the constitutional revision, parliament approved an amendment to the Confederation's Finance Law. This law deals with the practical implementation of the debt reduction mechanism.
 61. Experience shows that in the absence of correcting mechanisms or penalties, budget rules tend to be circumvented. Dafflon (1995) provides an example for the Swiss municipalities and Atkinson and Van den Noord (2001) discuss rules in various OECD countries. In addition, the risk of a built-in electoral cycle (with the overspending of the outgoing government being compensated by the new one) is low as the Swiss political system is consensus driven.
 62. In practice, a tax cut will reduce future expected revenues and, therefore, the expenditure ceiling, which will have to be met by the budget prepared by the Federal Council and approved by the Parliament, except in exceptional circumstances.
 63. The biennial system of direct taxation, which entailed a three year gap between the moment incomes were received and the actual payment of the tax, has been replaced since 2001 by an annual system similar to that in place in most other OECD countries.
 64. A reform of the unemployment insurance system is under consideration. It would remove the obligation to adjust contribution rates when the surplus, or deficit, of the unemployment fund exceeds 2.5 per cent of the wages subject to contribution.
 65. As federal tax revenue represents $11\frac{1}{2}$ per cent of GDP, a change of 1 per cent in the output gap will have a stabilising effect of around 0.12 per cent of GDP on the assumption of a unitary tax elasticity with respect to production. The stabilising effect of unemployment expenditure also amounts to nearly 0.1 per cent of GDP (on the assumption of an Okun coefficient of 4).
 66. The Mundell-Fleming model suggests that fiscal multipliers under a flexible exchange rate regime are smaller than under a fixed exchange rate regime.
 67. Several studies, including KOF (2001), Chouraqui *et al.* (1990) and IMF (1998) noted that the elasticity between taxes and output might exceed unity by a small margin. With an elasticity slightly underestimated relative to its "true" value, structural revenues as calculated by the rule (in the right-hand side of the formula in Box 2), would also be underestimated during cyclical troughs, which would lead to a small surplus of the structural balance. The reverse would happen during cyclical peaks inducing a pro-cyclical policy. This critique however does not apply if the actual tax revenue calculation is also biased due to the elasticity estimation error.
 68. Revenue forecasting errors have averaged $3\frac{1}{2}$ per cent since 1970, with the maximum errors exceeding 10 per cent, happening generally during downturns, as in 2000. In such cases, up to 6 per cent of the expenditure will be booked in the equalisation

- account. The residual, 4 per cent of federal expenditure, or ½ per cent of GDP, has to be eliminated within three years, corresponding to a change in the structural balance of less than 0.2 per cent per year (Mönch, 2001).
69. The following are considered as “mandatory” expenditure: personnel expenditure, interest payments and transfers arising from commitments. A third of these transfers, which represented 62 per cent of federal expenditure, go to cantons, another third to social insurance, and a sixth to federal enterprises and entities (railways, universities). The “mandatory” nature of personnel expenditure, which amounts to less than 12 per cent of federal spending, should however not be exaggerated, especially in a medium-term perspective.
 70. For instance, the local electricity monopolies reportedly offer some price rebates to public hospitals and schools which *de facto* result in lower public spending, at the cost however of higher prices for other users. Similarly, postal services serve regional policy objectives and postal offices with very few customers have been maintained.
 71. The net federal debt rose by more than 13 per cent of GDP between 1990 and 2000. However, the cumulative impact of the Confederation's deficit explains only about 8 percentage points of this increase.
 72. Switzerland grants generous tax privileges to capital income in general, and for savings with pension funds and insurance companies in particular (Carey *et al.*, 1999). The last tax expenditure review was published in 1997, as an annex to the review of the Confederation's transfer system. This review contains estimates for only two thirds of the tax expenditure items, dating back from the early 1990s in most cases. Information on the beneficiaries of tax relief does not appear in this review.
 73. International comparisons highlight the large share of personnel outlays in total public expenditure, which seems to reflect a high average wage in the civil service rather than a large number of civil servants. According to census data, employment in general government accounts for 12.6 per cent of total employment in Switzerland compared with an average of 16.2 per cent in the euro area and 14.3 per cent in the United States.
 74. The new personnel law was implemented in 2001 by the railway company (CFF) and the postal services (La Poste). It is due to come into force in 2002 for the Confederation. Overall, 1 11 000 persons will be affected by the law, of which 23 000 and 24 000 at La Poste and the CFF, respectively.
 75. In the previous system, seniority bonuses were granted almost automatically, irrespective of the employee's performance and in 2000, only 0.5 per cent of the Confederation's wage bill was available to reward good performance.
 76. One fifth of the municipalities (mostly the largest ones and those that are part of German-speaking Switzerland) have introduced new public management methods, including product definitions, performance agreements, and global budgets (Steiner, 2000).
 77. The 11 agencies managed under the “GMEB” model are: Institut suisse de météorologie, Office fédéral de topographie, Centre sportif de Tereno, Swissmint, Office fédéral de communication, Office fédéral de métrologie, Centrale de compensation, Organe d'exécution de la confédération pour le service civil, Stations de recherches agronomiques, Haras fédéral d'Avenche, Institut de virologie et d'immunoprophylaxie.
 78. The objective set for secondary schools in the canton of Zürich is that at least 90 per cent of pupils should qualify for university studies or a professional occupation and

- more than 60 per cent of university students are expected to finish successfully their graduate studies within 7 years after leaving secondary school.
79. Some remaining detailed rules on the structure of cantonal spending (*e.g.* no more than one office manager for eight personnel counsellor in the RPOs) were abolished in June 2001.
 80. Road taxes consist of an annual fixed-rate charge on heavy goods vehicles levied by the Confederation on vehicles weighing over 3.5 tonnes and a motorway tax. Special major infrastructure projects in the rail sector – including the construction of two main tunnels through the Alps, one in the west (Lötschberg) and one in central Switzerland (St. Gotthard) – are also largely funded through earmarked appropriations. The “Fund for Public Transport Infrastructure” is financed by a part of the gasoline tax, a part of the heavy vehicle tax, and 0.1 percentage point of the value added tax. However, contrasting with the financing of road infrastructure, this earmarking will stop once these specific projects are completed.
 81. Jeanrenaud (1994) provides an estimate of administrative costs for both the cantons and the Confederation for 4 grant programmes. Administrative costs ranged from 1.6 to almost 10 per cent of the grant, with the most important part of the cost being borne by the cantons.
 82. Switzerland has adopted the WTO government procurement framework and is implementing the bilateral agreement with the European Union (accepted by referendum in May 2000). These agreements oblige the Confederation, cantons and municipalities to implement open competitive bidding for contracts above a threshold value. In addition, an intercantonal agreement on public procurement has been adopted in 1994 and is currently under revision.
 83. The competition authority concluded in December 2001 that the companies acted as a bidding cartel. <http://www.wettbewerbskommission.ch/site/f/medien/Medienmitteilung.Par.0026.Pic0.pdf>
 84. To participate in a bid in the canton of Geneva, architects and engineers need to have their headquarters in the canton. However, under certain conditions, a temporary registration can be obtained.
 85. Health insurance premia are defined on a per capita basis and vary by a factor of one to two across cantons. About two thirds of the subsidies to the insured who cannot afford to pay the premia are paid by the Confederation, with the remainder being paid by the cantons. The health insurance law (LAMal) implemented in 1996 sets the maximum contribution by the Confederation allocated to health care subsidies at CHF 1 830 million (*i.e.* about 0.6 per cent of the confederation total spending). As a consequence, the cantons maximum contribution was set at CHF 640 million. However, many cantons took advantage of the possibility provided by the law of reducing their contribution by half, which also induces a halving of the Confederation's subsidy. Overall, subsidies from the Confederation and the cantons amounted to CHF 1 813 million in 1996.
 86. This proposal was presented to the Parliament in January 2002. If approved, it is expected to come into force in 2004 and is estimated to cost an additional CHF 280 million to the Confederation. Each canton will be required to complement the Confederation's subsidy. This would further increase public spending by an estimated CHF 135 million.
 87. The 1996 law on health insurances (LaMal) requires that health insurance does not cover more than 50 per cent of the operating costs of public hospitals for an insured

- person with a basic health insurance coverage. The rest of the cost should be paid by tax-financed cantonal contributions.
88. RPOs were introduced in 1994 in the canton of Vaud.
 89. The only exception concerns some of the secondary schools, whose programmes are co-ordinated nation-wide through an inter-cantonal agreement (Maturitätsanerkennungsverordnung).
 90. The overall female participation rate is relatively high by OECD standard but, corrected for working hours, participation rates are much lower, especially for 25-40 year olds.
 91. Four cantons (Tessin, Fribourg, Valais and Neuchâtel) have introduced a new law on childcare facilities. These cantons' contributions to the municipalities' costs vary however significantly (Berset, 2001).
 92. An initiative launched in 2000 by a Parliamentarian (J. Fehr) proposes that the Confederation devotes CHF 100 million a year to fund childcare facilities over a 10-year period.
 93. This was the main argument for the rejection (through a referendum) of a merger of municipalities in the canton of Thurgau in the late 1990s.
 94. In a few cases, including the building and maintenance of national roads, participation rates by the Confederation to the cantons' expenses do partly reflect the cantons' benefit from a specific spending programme. However, in most cases, participation reflects first and foremost the Confederation's fiscal position when the grant was given and the fiscal equalisation components (Blöchli *et al.*, 1999). They thus largely fail to incorporate spillover benefits.
 95. In principle, each canton organises and regulates the provision of long-term care for the elderly. However, some cantons have devolved this responsibility to municipalities.
 96. This section largely draws on OECD (1999c) and on the Territorial Review of Switzerland (OECD, 2002a).
 97. Some cantons (*e.g.* Fribourg and Neuchâtel) have passed the responsibility for accepting or rejecting a demand for social assistance from the municipalities to a cantonal commission.
 98. If an individual moves from one municipality to another, the municipality of destination can recoup the costs of the recipient's benefits from the municipality of origin for a two-year period. This system is, however, administratively cumbersome.
 99. The personal and income wealth taxes account for about 75 per cent of municipal tax revenues and are paid in the jurisdiction of residence.
 100. The project would introduce a new transitional compensation scheme for poorer cantons ("*compensation des cas de rigueur*"). Associated spending would amount to CHF 280 million, *i.e.* less than 0.2 per cent of total public spending in 1999. Spending would not be adjusted for inflation and could be phased out after 4 years.
 101. A previous version of the reform project estimated that these gains could reach CHF 2 to 2.5 billion (1.7 per cent of total public spending).
 102. Zürcher (1998) shows that the dispersion of income across cantons was broadly similar in 1994 to the 1965 situation. However, these disparities are low compared to many other OECD countries (OECD, 2002a).
 103. With a debt stable in nominal terms, the debt-to-GDP ratio should fall by 25 per cent over a decade (*i.e.* by 13 percentage points), assuming a nominal output growth of 3 per cent a year – 1.5 per cent real and 1.5 per cent of inflation.

104. See AFF, 2001. On the current timetable, the new framework will not be adopted before 2004-05.
105. Most public offices managed under the GMEB model deliver some services to private clients, which partly serves to assess their ability to respond to the market. However, in some cases they may hinder the development of private companies. Claims of unfair competition between GMEB offices and private competitors have already surfaced. A private company brought a case against the federal topography agency. The government, after consulting the competition authority, has denied the unfair competition claim.
106. RPOs contribute to a rapid and durable return to work for the unemployed, and thus to reduce the overall amount of unemployment benefits. Cutting too much spending on RPOs may result in an increase in unemployment benefits. Net savings could even turn negative. In 2000, unemployment benefits cost 0.57 per cent of GDP. RPOs' administration cost amounted to 0.11 per cent of GDP while other labour market measures cost 0.36 per cent of GDP.
107. Pilot experiences have recently been introduced in several cantons (Valais, Geneva, Tessino, Vaud) and could provide useful lessons. A wider reform is currently under discussion within the Parliament.
108. The internet site on public procurement markets for the canton of Vaud can be accessed at the following address: <http://www.marches-publics.vd.ch/>.
109. Any driver using the motorway has to pay an annual sticker. However, this fee does not reflect road use nor the contribution to traffic congestion. Set at CHF 40 per car in 2001, it is also low for the average user.
110. In December 2001, 29 investigations were underway. Most of them relate to illegal agreements or to abuse of dominant position.
111. It should be noted that leniency in terms of fines does not mean participants will suffer no ill effects because of their illegal cartel activity. They will still be subject to private actions by parties harmed by the cartel.
112. As an illustrative example, architects and engineers in the canton of Geneva need to register in the canton to be able to exercise their profession.
113. For example, in Novartis voting rights of a single shareholder (in economic terms) are limited to those under a threshold of 2 per cent of equity; in Nestlé and Swissair, 3 per cent; in Ciba, 5 per cent. In Roche, the owners of 10 per cent of the capital have 51 per cent of the voting rights.
114. This includes price support through import barriers and budgetary payments of around CHF 5 billion (more than 1 per cent of GDP).
115. Target prices are indicative and have a mere psychological value. Intervention in the market is only compulsory if the price falls by 10 per cent below the target price. Up to now, and because of good market conditions, there has been no price intervention.
116. Some indicators are worth mentioning. The area devoted to organic farming has increased dramatically during the 1990s, and is larger in relative terms than in other OECD countries except Austria and Sweden. The efficiency of nitrogen use in agriculture is similar to the EU and OECD averages, while pesticide use has diminished by nearly 25 per cent between 1980-87 and 1995-97, a similar reduction as in the EU. Greenhouse gases from agriculture have been reduced by more than the EU average between the beginning and the mid-1990s (OECD, 2000).
117. On average, 25 per cent of final electricity prices consists of taxes.

118. More precisely, the first step of liberalisation includes all final consumers above 20 GW/h, plus 20 per cent of sales of suppliers to captive customers. The second step (medium-sized customers) includes final customers above 10 GW/h plus a further 20 per cent of sales of suppliers to captive consumers. The final step will lead to a complete liberalisation.
119. The introduction of a tax on non-renewable energies (comprising CO₂ emitting fuels) was supposed to provide *inter alia* and for a limited time resources to pay for stranded costs in the electricity reform, but the tax was rejected in the referendum on ecological tax reform in September 2001.
120. However, frictions over the application of the LRIC model have appeared between Swisscom and two rival companies (diAx and Worldcome), and the issue is at present dealt with by the Communications Commission.
121. Radio access to the local loop has also been developed since the auction of new licences in spring 2000, although the development is slow for technical and commercial reasons.
122. For the moment, the offer submitted by Swisscom to provide universal service does not need any subsidy.
123. Recent accidents in the Gotthard and Mont Blanc tunnels, which have required the closing-down for long periods, are good examples of these difficulties.
124. Before 2001, lorries had to pay an annual fee in the range of CHF 1 300 to 8 000 depending on the weight of the vehicle.
125. Recently the EU commissioner for transport highlighted Switzerland as an example to follow in the promotion of railways.
126. The accounts of the company, which deteriorated markedly in the mid-1990s, have started to recover. The loss of the company (excluding subsidies received and interest payments) was reduced from CHF 2 684 million in 1998 to CHF 2 412 million in 1999 (which is equivalent to 0.7 per cent of GDP and to 37 per cent of the company's current revenues).
127. In 1997 Switzerland had one of the least efficient air transport industries, according to an overall efficiency indicator compiled by the OECD (Gonenç and Nicoletti, 2000).
128. The aid consists of several items. CHF 450 million were initially committed to allow the company to operate until the end of October, while a permanent solution was found. A new package in mid-October included a further CHF 650 million to increase the capital of the new company, and CHF 1 billion to cover operating expenses of Swissair until April 2002, since the merger with Crossair could not be done until that date for technical reasons.
129. The remaining capital will be shared by the two largest banks (20 per cent) and by a large number of Swiss companies that have 'collaborated' in the aid package.
130. For example, the major US carriers have reduced employment by 20 per cent each, as has Lufthansa. Other companies have implemented significant reductions, or have suspended previously planned hirings: Air Lingus (25 per cent), KLM (15 per cent) and Air France (10 per cent) (Le Temps, 2001).
131. The new company will operate with 134 aeroplanes, or 18.9 aeroplanes per million inhabitants. This compares with 12.6 for Austrian Airlines, 10.8 for SAS, 7.9 for KLM, 6.1 for Air France, 4 for Lufthansa and 2.8 for Alitalia. However, these numbers must be nuanced since in some of the countries where these companies operate as the main carrier other large companies exist.

132. Surveys show that the Swiss population is satisfied with the health care provided, and that it compares favourably with that in other European countries (France, Germany, the Netherlands, Luxembourg) (OFAS, 2001). The compulsory nature of basic insurance coupled with the uniform premiums in each fund ensures solidarity between the insured, which is reinforced by the system of risk equalisation between insurers and individual reductions in premiums for low-income households.
133. Between 1996 and 2001, insurance premiums rose on average by 6.3 per cent per year. In 2002, the average increase will be 9.7 per cent. There is a lack of indicators at the federal level that would allow to assess to what extent these increases reflect rising care quality.
134. Although low-income households receive targeted assistance, wide disparities remain: the subsidies which the Confederation gives to cantons to reduce premiums cover only a small part of the large differences in premiums across regions, and this link between subsidies and premium levels will disappear in 2002.
135. Pharmacists will receive 40 per cent of the savings resulting from the use of generics. Only 3.2 per cent of drugs in Switzerland are generics compared with 20-25 per cent in the United States and Germany. In the United States, the market share of generic drugs is almost 50 per cent when measured in volume instead of value terms (Jacobzone, 2000).
136. Up to now, 10 per cent of the pharmacists' 33 per cent margin represented their salary after deduction of charges; they thus had a direct incentive to sell costly drugs. Since 1 July 2001, this has been replaced by a lump-sum remuneration system (including a charge for processing prescriptions, advice, emergencies, etc.).
137. A recent decision by the Federal Insurance Court forces the cantons to pay 50 per cent of the financing of hospitals for privately-insured patients. Currently these expenditure are borne exclusively by the insurers.
138. There is no *numerus clausus* in Switzerland and per capita health care consumption is closely correlated with the density of practitioners, which varies by a factor of one to three between cantons.
139. A study (Dominighetti and Crivelli, 2001) comparing different regions of Switzerland concludes that the end to the obligation on insurers to contract with all qualified practitioners in the ambulatory sector could help to restrain medical cost without affecting the degree of satisfaction of the population.
140. Legally, the system does not impose that tariffs negotiated at the cantonal level apply to all funds, but there are only few exceptions to this.
141. This strategy enabled small insurers to increase their market share at the expense of large insurers.
142. At end-1999, the regional penetration of HMO-type arrangements, including general practitioners acting as gate keepers, was less than 1 per cent of the insured in ten cantons and reached a maximum of 20 per cent in three other cantons. The reform envisages to force all insurers to supply these products everywhere.
143. The right to choose one's doctor would be maintained in case of an emergency and for certain types of patients (chronic patients). The cantons could also determine the minimum number of health care providers that insurers will have to contract with to guarantee sufficient choice and quality.

144. Price comparisons suggest that if the insured systematically joined the least expensive fund in each canton, the basic insurance premium would fall by an average of CHF 500 per year, *i.e.* by over 20 per cent.
145. “Good risks” – *i.e.* young people in good health – are more mobile than older, less well-informed people who often have a long-standing relationship with their fund.
146. Only age and gender-related factors are currently taken into account in risk equalisation.
147. Quality circles of doctors and pharmacists have been set up in the canton of Fribourg to tighten up on prescriptions. The initial results of this experiment are promising.
148. The pharmaceutical industry promotes new products but is more reluctant about making an effort to curb medical expenditure. The oligopolistic structure of the drug market is not conducive to competition between laboratories, and there are few public entities that encourage and finance research to reduce costs (Vos, 2001).
149. This is especially true of dental care. A comparative study has shown that the price of such care is high compared with that in neighbouring countries.
150. Controls are needed for safety reasons. However, this does not seem an insurmountable problem. Some private insurers already refund drugs purchased abroad.
151. In 1999 insurance premiums per head were USD 4 642 in Switzerland, USD 3 909 in the United States and USD 3 244 in the United Kingdom (Ackerman and Artho, 2001).
152. The staff of the MCLA has been doubled to 25 persons.
153. Fiduciary accounts are used to invest outside of Switzerland. Portfolios in fiduciary accounts are managed by banks for a fee, while gains or losses accrue to the client.
154. Funds invested through fiduciary accounts generally are invested in countries that do not levy a withholding tax on bank deposits belonging to non-residents. Switzerland's tradition of strict privacy – which is laid down in the Constitution – and bank secrecy protect the identity of the beneficial owner of the account from disclosure to the tax authorities of the beneficial owner's country of residence. This scheme allows a non-resident desiring to evade taxes to be reasonably certain that a failure to declare invested capital and/or the interest thereon to his country of residence will go undetected.
155. According to Swiss law, tax fraud is committed on the one hand by the use of false documents, such as the presentation of a false balance sheet or falsified invoices. On the other hand, any fraudulent deception of the tax authorities with the aim to evade taxes also represents a tax fraud.
156. EU member states will be required to have a legal framework in place on 1 January 2004 that is in conformity with the Directive and, thus, be in a position to provide information to other EU member states with respect to interest payments made by individuals resident in the relevant member state.
157. On the basis of a report on these negotiations, member states will take a decision on the final text of the Directive at the latest by 31 December 2002.
158. In April 2000, the OECD released a report, *Improving access to Bank Information for Tax Purposes*, which encourages all Member countries to improve access to bank information for tax purposes.
159. During 2001 such referendums rejected partial privatisation in Vaud and Zurich.
160. In these cases, non-performing loans were placed in an asset management company whose liabilities were guaranteed by the canton.

161. In 1995 the Swiss stock market was first to implement an entirely electronic trade system, SWX. Its technology is very similar to that of Virt-X and is considered to be highly advanced.
162. As a consequence, one month after its implementation, foreign values only represented 5 per cent of the volume traded.
163. Virt-X argues that the average foreign operation costs EUR 2 in Virt-X, but between EUR 10 and 80 in Switzerland.
164. Other related measures were the re-definition of a “suitable job” (a job offer that cannot be refused), which implied that a salary 30 per cent lower than the previous wage had to be accepted, or benefits would be withdrawn; and the obligation to accept a job in another area when the job was up to two hours away from the area of residence of the unemployed.
165. The ALMP measures included training and education programmes, temporary employment programmes, and programmes of *intermittent payment*, by which the Confederation paid wage subsidies to those workers that accepted wages below a “suitable earning” level while continuing the job search. Of all these programmes, intermittent payments proved useful for taking the long-term unemployed back to work, whereas training programmes only worked in some cases, and were counter-productive in others. Temporary work programmes were considered expensive and not very useful.
166. See Richardson *et al.* (2000).
167. The new law could still be challenged in a referendum.
168. If the unemployment rate rises in a canton over 5 per cent, the cantonal government may decide to extend benefits beyond 400 days, but will have to finance 20 per cent of the extra cost. The cantonal government may decide to apply this provision to only part of its territory.
169. See Blanchard and Wolfers (1999) and Scarpetta (1996).
170. Defined as those aged 15-64.
171. Annex I provides a more detailed description of the approach used to quantify the potential macroeconomic impact of structural reforms.
172. The input-output matrix used is derived from research done by the *Laboratoire d'économie appliquée* of Geneva, which used 1990 data, and has been re-calculated for 1995 by the Federal Institute of Technology in Zürich (for details, see Lips and Nieuwkoop, 2001).
173. The long-term effect of the price reduction on production depends on the sectors and products involved. Here a price elasticity of demand of -0.5 has been used, as in the OECD study on regulatory reform and in other studies (Van Bergeijk *et al.*, 2000).
174. For Switzerland it is difficult to provide estimates of the impact of reforms on specific sectors, given that there is no complete set of sectoral accounts available.
175. In case 1 of the simulations, a decrease of 6 per cent in the general price level should increase expenditure volumes mechanically by 6 per cent, assuming an unchanged consumption-savings behaviour. With the positive impact of reforms on potential growth, including the dynamic of capital accumulation, an overall increase in GDP of 7 per cent seems intuitively plausible independent of the specific model used.

Glossary of acronyms

ALMPs	Active labour market programmes
APG	Financial compensation received by employee attending military training
AVS/AI	First pillar of old age and disability insurance
CFF	Federal railway company
COMCO	Competition Commission
COMCOM	Swiss Telecommunication regulator
CPI	Consumer price index
DMA	Domestic Market Act
ECB	European Central Bank
EEA	European Economic Area
EMS	European Monetary System
EU	European Union
FSA	Financial Services Authority
GDP	Gross Domestic Product
GMEB	Public expenditure management based on output targets and block appropriations
GNP	Gross National Product
HMO	Health maintenance office
KOF	Federal Polytechnic School of Zurich
LACI	Unemployment insurance law
LAMal	Health insurance law
LPERS	Federal personnel law
LRIC	Long-run incremental cost
M3	Broad monetary aggregate
MCI	Monetary conditions index
MLCA	Money Laundering Control Authority
NAIRU	Non-accelerating inflation rate of unemployment
PMI	Purchasing Managers' Index
PSE	Producer support estimate
RPOS	Regional Placement Offices
RPT	Réforme de la péréquation et de la répartition des tâches entre la Confédération et les cantons
SMEs	Small and medium-sized enterprises
SMI	Swiss market index
SNB	Swiss National Bank
SPAO	Employed labour force statistics, based on the labour force survey
STATEM	Labour force survey and employment statistics
UBS	Union Bank of Switzerland

UMTS	Universal Mobile Telephone Systems (third generation mobile telephone systems)
VAR	Vector-autoregressive
VAT	Value added tax
Virt-X	New electronic stock market
WTO	World Trade Organisation
xDSL	Technologies which allow for high speed data transmission through traditional telephone lines

Bibliography

- Ackerman, W. and G. Artho (2001),
 “L’Évolution des marchés d’assurance déréglementés”, *La vie économique*, 10/2001, http://www.seco-admin.ch/seco/seco2.nsf/dieSeite/News_Pub_VolkswirtschaftArchiv?OpenDocument&l=fr&HauptRessort=1
- AFF (2001),
 Message concernant le Compte d’État 2000.
- Amman, Y. (1995),
 “Le budget du plein emploi – un réexamen”, Office fédéral des questions conjoncturelles, Étude No. 20.
- Atkinson, P. and P. van den Noord (2001),
 “Managing public expenditure: some emerging policy issues and a framework for analysis”, OECD Economics Department Working Papers, No. 285, <http://www.oecd.org/pdf/M00002000/M00002529.pdf>
- Baltensperger, E., T.J. Jordan and M.R. Savioz (2001),
 “The demand for M3 and inflation forecasts. An empirical analysis for Switzerland”, *Weltwirtschaftliches Archiv* (137(2): 244-272).
- Berset, V. (2001),
 “Garde extra-familiale : possibilités, mesures et perspectives”, in *Bulletin d’information de la Centrale pour les questions familiales à l’Office fédéral des assurances sociales*, 2001/1.
- Blanchard, J.O. and J. Wolfers (1999),
 “The role of shocks and institutions in the rise of European unemployment: the aggregate evidence”, NBER Working Paper, No. 7282, <http://papers.nber.org/papers/W7282>
- Blöchliger, H., S. Herrmann, S. Kux and S. Heitmann (1999),
 “Finanzierung des Verkehrs von morgen: Analysen und Reformen”, *Transport and environment: interactions Switzerland-Europe*, Programme de recherche PNR 41, Berne.
- Blondal, S., S. Field, N. Girouard and A. Wagner (2002),
 “Investment in human capital through post compulsory education and training: selected efficiency and equity issues”, OECD Economics Department Working Papers (forthcoming).
- Carey, D., K. Gordon and P. Thalmann (1999),
 “Tax reform in Switzerland”, OECD Economic Department Working Papers, No. 222, [http://www.oilis.oecd.org/oilis/1999doc.nsf/97df3458ed2506bc125685f003fcdeb/0f716880a96df9fac12567cc00562a0b/\\$FILE/08E98054.ENG](http://www.oilis.oecd.org/oilis/1999doc.nsf/97df3458ed2506bc125685f003fcdeb/0f716880a96df9fac12567cc00562a0b/$FILE/08E98054.ENG)
- Case, K.E., J. M. Quigley and R.J. Shiller (2001),
 “Comparing wealth effects: the stock market versus the housing market”, *Cowles Foundation Discussion Paper*, No. 1335, October, <http://cowles.econ.yale.edu>

- Chouraqui, J.C., R. P. Hagemann and N. Sartor (1990),
“Indicators of fiscal policy: a reexamination”, OECD Economics Department Working Papers,
No. 78, <http://www.oecd.org/pdf/M00009000/M00009059.pdf>
- Commission de gestion du Conseil National (2001),
“Problèmes d’exécution de la loi sur le blanchiment d’argent”, June.
- Dafflon, B. (1994),
“Expertise sur les aides financières et les indemnités de la confédération aux cantons:
analyse des incidences péréquatives”, in *Der Finanzausgleich zwischen Bund und Kantonen*.
- Dafflon, B. (1995),
“L’équilibre des budgets publics locaux : quelle stratégie et quels risques de
dérapages”, *Politique et management public*, Vol. 13, No. 3, September.
- Dang, T.T., P. Antolin and H. Oxley (2001),
“Fiscal implications of ageing: projections of age-related spending”, OECD Economics
Working Papers, No. 305, <http://www.oecd.org/pdf/M00009000/M00009666.pdf>
- Danninger, S. (2002),
A New Rule: “The Swiss Debt Brake”, IMF Working Paper, WP/02/18, <http://www.imf.org/external/pubs/ft/wp/2002/wp0218.pdf>
- Département Fédéral de Finances (2001),
Étude technique de faisabilité d’un impôt à l’agent payeur, February, [http://
www.dff.admin.ch/f/dok/presse/mm0201/zinsbesteuerung_summery_f.pdf](http://www.dff.admin.ch/f/dok/presse/mm0201/zinsbesteuerung_summery_f.pdf)
- Domenighetti, G. and L. Crivelli (2001),
“Sécurité de l’approvisionnement en médecine de ville dans le cadre de la suppression
de l’obligation de contracter”, Université de Lausanne, August, [http://
www.santesuisse.ch/datasheets/files/20020211111931.PDF](http://www.santesuisse.ch/datasheets/files/20020211111931.PDF)
- Domenighetti, G. and J. Quaglia (2001),
“Analyse comparative de la performance du système sanitaire suisse”, *La vie économique*,
revue de politique économique, 9-2001.
- Elias, J. (2001),
“Notre politique sociale et budgétaire est-elle durable? Un premier bilan intergénérationnel
pour la Suisse”, *La vie économique*, édition 6-2001. [http://www.seco-admin.ch/seco/
seco2.nsf/dieSeite/News_Pub_VolkswirtschaftArchiv?OpenDocument&l=fr&HauptRessort=1](http://www.seco-admin.ch/seco2/seco2.nsf/dieSeite/News_Pub_VolkswirtschaftArchiv?OpenDocument&l=fr&HauptRessort=1)
- Faber, S. M. and A.M. Fischer (2000),
“L’inflation sous-jacente en Suisse”, *Bulletin trimestriel*, Banque nationale suisse, No. 4,
December. http://www.snb.ch/f/publikationen/geld/004/uebersicht_teil_d_004.html
- Feld, L.P. and G. Kirchgässner (2002),
“Does direct democracy reduce public debt? Evidence from Swiss municipalities”, to
be published in *Public Choice* (forthcoming).
- Feld, L.P. and J.G. Matsusaka (2001),
“Budget referendums and government spending: evidence from Swiss cantons”,
mimeo, February.
- Filippini (2000),
“Economies of scale in the Swiss nursing home industry”, *Applied Economic Letters* 2001,
No. 8, pp. 43-46.
- Gonenç, R. and G. Nicolletti (2000),
“Regulation, market structure and performance in air passenger transportation”, OECD
Economics Working Papers, No. 254, [http://www.oecd.org/olis/2000doc.nsf/linkto/eco-wkp\(2000\)27](http://www.oecd.org/olis/2000doc.nsf/linkto/eco-wkp(2000)27)

- Gugler, P. (2001),
 “Pour une dose de concurrence dans le système de santé”, *Le Temps*, 5 October.
- Heckman, J.J. (1999),
 “Policies to foster human capital”, NBER Working Paper, No. 7288, <http://papers.nber.org/papers/W7288>
- IMF (1998),
 “Fiscal Policy Rules and Business Cycles”, *Switzerland: Selected Issues*, February, <http://www.imf.org/external/pubs/ft/scr/1998/cr9843.pdf>
- IMF (2001),
 “Switzerland’s Debt Brake”, *Switzerland: Selected Issues*, April, <http://www.imf.org/external/pubs/ft/scr/2001/cr0175.pdf>
- Jacobzone, S. (2000),
 “Pharmaceutical policies in OECD countries: reconciling social and industrial goals”, *Labour Market and Social Policy Occasional Papers*, No. 40, [http://www.oilis.oecd.org/OLIS/2000DOC.NSF/LINKTO/DEELSA-ELSA-WD\(2000\)1](http://www.oilis.oecd.org/OLIS/2000DOC.NSF/LINKTO/DEELSA-ELSA-WD(2000)1)
- Jeanrenaud, C. (1994),
 “Expertise sur les aides financières et les indemnités de la confédération aux cantons: le point de vue de l’efficacité” in *Expertise relative aux aides financières et indemnités de la confédération en faveur des cantons* mandatée par l’Administration générale des finances et la Conférence des Directeurs cantonaux des finances.
- Jordan, T. J. and M. Peytrignet (2001),
 “La prévision d’inflation de la Banque nationale suisse”, *Bulletin trimestriel*, Banque nationale suisse, No. 2, June, http://www.snb.ch/f/publikationen/publi.html?file=geld/text_geld.html
- Jordan, T.J., M. Peytrignet and G. Rich (2001),
 “The role of M3 in the policy analysis of the Swiss National Bank”, in H.J. Klöckers and C. Willeke (Eds) *Monetary analysis: tools and applications*, European Central Bank, pp. 47-62.
- Kirchgässner, G. and W. Pommerehne (1996),
 “Tax harmonisation and tax competition in the European Union: lessons from Switzerland”, *Journal of Public Economics*, 60(3), June.
- KOF (2001),
 “Examen des méthodes appliquées par le Département fédéral des finances pour estimer les recettes”, Konjunkturforschungsstelle der ETH Zurich, <http://www.efd.admin.ch/f/dok/presse/mm0601/einnahmen.htm>
- Kübler, T. and C. Koellreuter (2001),
 “Importance de l’industrie chimique et pharmaceutique pour l’économie suisse”, étude réalisée par BAK, Konjunkturforschung Basle AG, <http://www.interpharma.ch/themen/ghpolit/archiv/pdf/BAK-f.pdf>
- Kungler, O. and P. Saurer (2000),
 “Reallocating budgetary resources – The Swiss case”, Document presented at the OECD senior budget officials meeting in 2000.
- Laxton, D. and E. Prasad (2001),
 “Possible effects of European Monetary Union on Switzerland”, *Journal of Policy Modelling* 23, pp 431-551, http://www.sciencedirect.com/science?_ob=MImg&_imagekey=B6V82-447N1VN-7-G&_cdi=5858&_orig=search&_coverDate=07%2F31%2F2001&_qd=1&_sk=999769994&wchp=dGLStS-lSzBk&_acct=C000049020&_version=1&_userid=946274&md5=52eaa059fd1099e54391fbd8346cef20&ie=f.pdf

- Le Temps (2001),
“Le risque de surcapacité de la nouvelle Crossair”, *Le Temps*, 12 October.
- Lips, M. and R. van Nieuwkoop (2001),
“Switzerland” in Dimaranan, B. V. and R. A. McDougall (2001). *Global Trade, Assistance, and Production: The GTAP 5 Data Base*, Center for Global Trade Analysis, Purdue University, <http://gtap.agecon.purdue.edu/resources/download/668.pdf>
- Message sur LACI (2001),
Message concernant la 4^e révision de la loi fédérale sur l’assurance invalidité.
- Müller-Kucera, K. and T. Bauer (2001),
“Does Childcare pay off?”, mimeo submitted to the *Journal of Population Economics*.
- Mönch, Emanuel (2001),
“Le frein à l’endettement : l’évaluation économique d’un projet de loi en Suisse”, rapport de stage.
- National Council (2002),
“Initiative parlementaire: Incitation financière pour la création de place d’accueil pour enfants en dehors du cadre familial”, Rapport de la Commission de la sécurité sociale et de la santé publique du Conseil national, 22 February.
- Oates, W.E. (1999),
“An essay on fiscal federalism”, *Journal of Economic Literature*, Vol. 37, September.
- OECD (1995),
OECD Economic Surveys: Switzerland, Paris.
- OECD (1997),
OECD Economic Surveys: Switzerland, Paris.
- OECD (1998),
The OECD report on regulatory reform.
- OECD (1999a),
OECD Economic Surveys: Switzerland, Paris.
- OECD (1999b),
Principles of Corporate Governance, SG/CG(99)5.
- OECD (1999c),
“The battle against exclusion, volume 3 – social assistance in Canada and Switzerland”, Paris.
- OECD (2000),
OECD Economic Surveys: Switzerland, Paris.
- OECD (2001a),
OECD Economic Surveys: Japan, Paris.
- OECD (2001b),
Labour market policies and the public employment service, Paris.
- OECD (2001c),
OECD Economic Surveys: Austria, Paris.
- OECD (2001d),
“Investment in human capital through post-compulsory education and training”, *OECD Economic Outlook*, No. 70, December.

- OECD (2001e),
 “Fiscal implication of ageing: projections of age-related spending”, *OECD Economic Outlook*, No. 69, June.
- OECD (2002a),
OECD Territorial Review of Switzerland.
- OECD (2002b),
OECD Economic Outlook, No. 71, June (forthcoming).
- OFAS (2000),
 “Réforme de la compensation des risques dans l'assurance maladie ? – Étude No. 2. Analyse empirique de proposition visant à optimiser le système”, *Research paper*, No. 3/00.
- OFAS (2001a),
 “Auswirkungen des Krankenversicherungsgesetzes auf die Versicherten”, *Research paper*, No. 3/01.
- OFAS (2001b),
 “Auswirkungen des Krankenversicherungsgesetzes auf die Versicherer”, *Research paper*, No. 6/01.
- OPCA (2000),
 “Quel est le degré d'ouverture du marché intérieur suisse ?”, February. <http://www.parlament.ch/poly/Framesets/F/Frame-F.htm>
- Reichard, C. (2001),
 “Outcome-based service delivery – some experiences from Germany and Switzerland”, Paper for the 8th Conference on “Outcome-based governance: Assessing the results” of the University of Stellenbosch (September 12-14).
- Richardson, P., L. Boone, C. Giorno, M. Meacci, D. Rae. and D. Turner (2000),
 “The concept, policy use and measurement of structural unemployment: Estimating a time-varying NAIRU across 21 OECD countries”, *OECD Economics Department Working Papers*, No. 250, [http://www.oilis.oecd.org/oilis/2000doc.nsf/linkto/eco-wkp\(2000\)23](http://www.oilis.oecd.org/oilis/2000doc.nsf/linkto/eco-wkp(2000)23)
- Saurer, P. and O. Kungler (2001),
 “Re-allocation: Aligning political priorities and budgetary funding”, *OECD Journal on Budgeting*, Vol. 1, No. 2.
- Scarpetta, S. (1996),
 “Assessing the role of labour market policies and institutional settings on unemployment: A cross-country study”, *OECD Economic Studies*, No. 26.
- Sheldon, G. (1997),
 “Unemployment and unemployment insurance in Switzerland”, in Ph. Bacchetta and W. Wasserfallen (eds.), *Economic Policy in Switzerland*, Macmillan Press.
- Sheldon, G. (2000),
 “Les effets de l'institution des offices régionaux de placement sur l'efficacité du service public pour l'emploi”, *La Vie économique*, 4/2000.
- Spahn, P.B. (1997),
 “Switzerland”, in *Fiscal Federalism in theory and in practice*, Ed. Teresa Ter-Minssian, International Monetary Fund.
- Spycher, S. (1999),
 “Analyse des effets de la compensation des risques dans l'assurance maladie”, Condensé, Bureau d'études de politique du travail et de politique sociale (BASS), Berne, April.

- Stalder, P. (2001),
“Un modèle macroéconomique pour la Suisse”, *Bulletin trimestriel*, Banque nationale suisse, No. 2, June, http://www.snb.ch/d/download/publikationen/q0102/qh2_mm_f.pdf
- Steiner, R. (2000),
“New public management in Swiss municipalities”, *International Public Management Journal*, No. 2.
- Turner, D., P. Richardson and S. Rauffet (1996),
“Modelling the supply side of the seven major OECD economies”, *OECD Economics Department Working Papers*, No. 167, [http://www.oilis.oecd.org/olis/1996doc.nsf/LinkTo/OCDE-GD\(96\)133](http://www.oilis.oecd.org/olis/1996doc.nsf/LinkTo/OCDE-GD(96)133).
- Van Bergeijk, P. A. G., J. van Sinderen and B. A. Vollaard (2000),
Structural reform in open economies: A road to success?
- Van den Noord P. (2000),
“The size and role of automatic fiscal stabilizers in the 1990s and beyond”, *OECD Economics Department Working Papers*, No. 230, <http://www.oecd.org/pdf/M00001000/M00001683.pdf>
- Vos, A. (2001),
“Faute d’argent, la recherche peine à développer des thérapies moins chères”, *Le Temps*, 11 October.
- Zufferey, J.B. (2000),
La réglementation et la surveillance des marchés financiers en Suisse, November. <http://www.dff.admin.ch/multilg/finanzmarkt.pdf>
- Zürcher, B. (1998),
“Income distribution dynamics across Swiss cantons”, *Swiss Journal of Economics and Statistics*, 134 (2).

*Annex I***Evaluation of the benefits of regulatory reform:
Supplementary information**

This annex provides methodological information on the evaluation of the macroeconomic effects of regulatory reforms. The simulated reforms would improve competition in four sectors, *i.e.* agriculture, health, electricity and gas, which together represent about 20 per cent of Swiss GDP.

The method used is close to the approach followed in an OECD study of regulatory reform (OECD, 1998). The quantification is carried out in two steps. In the first, the static impact of a reform in these sectors on the overall price level is estimated. The second step establishes a link between the estimated price reduction and the associated rise in aggregate production, by evaluating the effects of the structural reforms with a macroeconomic model. In particular, the consequences of a reduction in firms mark-ups and of higher labour productivity consistent with the calculated price reduction are simulated.

First step: potential effects of structural reforms on the price level

Several factors are taken into account in order to calibrate the price reduction, which could derive from regulatory reform or from the liberalisation of some sectors. *First*, the price differences with other countries are examined with available indicators, largely using data on purchasing power parity (PPP). These data provide an indication of possible price reductions in the various sectors. In the case of health care, the average price level is more than 60 per cent above that of the European Union, while the differences are 40 per cent in agriculture and more than 30 per cent for the average of private consumption. *Second*, the effect of regulatory reforms implemented in other countries has been taken into account to quantify the effect of some sectoral reforms. In the case of electricity, available studies show, for instance, that the reform in Germany has led to a price reduction of between 15 and 20 per cent for businesses. Despite these indications, it is still difficult to measure the effect of a series of structural reforms in terms of sectoral price reductions. Therefore, two cases have been analysed in the main text, in order to provide a range for the potential impact of reforms. In *case 1*, agricultural and health prices decrease by 25 per cent, whereas electricity and gas prices fall by 20 and 10 per cent, respectively. In *case 2*, the price reduction is assumed to reach only 15 per cent for agriculture and health care and 10 per cent for electricity and gas.

Two complementary approaches have been used to estimate the impact of sectoral reforms on the general price level. The first one is based on the analysis of the input-output matrix, which allows taking into account the effect of lower prices on intermediate consumption on the aggregate price level. In the case of Switzerland, this approach is limited by data

availability.* An alternative approach, based on the weight structure of the consumer price index (CPI), provides another estimation of the drop in aggregate prices. In *case 1*, this drop is estimated to be between 4¼ and 6½ per cent, and in *case 2* between 2½ and 4 per cent. In general, the estimates obtained with the input-output matrix approach are lower than those provided by the CPI weighting structure, given the higher weight of health care and agricultural products in consumption than in value added.

Second step: estimation of induced effects on production

The OECD's macroeconomic model Interlink has been used here to estimate the dynamic effect of structural reforms on production. The favourable impact of these regulatory reforms on the price level leads to a more efficient use of production factors and to a reduction of margins. The supply block of Interlink incorporates at an aggregate level the effect of trend total factor productivity and of the level of margins on wages and prices (Turner *et al.*, 1996). It is therefore possible to calculate the necessary efficiency gains and mark-up reductions in order to obtain the predetermined price reduction. This is made on an *ex ante* basis, that is, without taking into account the incidence of financial variables and of the other variables in the model that describe the functioning of the rest of the economy. This ensures a better consistency with the quantification of the static impact of reforms on prices obtained previously.

The simulation of the rise in total factor productivity growth and of the fall in margins, both consistent with the predetermined price reduction, has been carried out for a period of ten years, in order to obtain the dynamic effect of reforms. The effect of such a shock is deflationary if there is no accompanying easing of monetary policy, since the simulated effect of lower margins, together with the reduction of the output gap due to a higher potential growth, induce downward pressure on prices. Hence, it has been assumed that the monetary authorities adopt an accommodating policy, neutralising deflationary pressures. Lower interest rates induce a depreciation of the exchange rate, which favours an increase in production, which is compatible with that of potential growth. The relaxation of monetary conditions is calibrated in a way that the objective of price stability of the central bank is respected. The maintenance of price stability, together with the fall of the exchange rate reduces the comparatively high price level in Switzerland with respect to other countries.

The results of the simulation show that structural reforms favour a virtuous cycle of cost reductions, higher international competitiveness and real revenues, lower interest rates and stronger capital accumulation, reinforcing the growth potential of the economy. The cumulated impact of the higher GDP reaches between 4 and 7 per cent relative to the baseline scenario after 10 years. The upper bound of this estimate corresponds to *case 1* mentioned above, where the effect of reforms on prices is higher.

The order of magnitude of the results obtained in terms of higher output seems plausible. Intuitively, the initial reduction of around 6 per cent of the price level, as in *case 1*, should induce almost mechanically an increase of expenditure in volume terms of 6 per cent in the absence of a change in saving behaviour. Taking into account the positive effects of reforms on potential growth, including the rise in the capital stock, a total GDP increase of 7 per cent appears to be plausible, independently of the specific model used.

* Only partial data on input-output matrices are available, and these correspond to the beginning of the 1990s.

*Annex II***Calendar of main economic events****2000****July**

The Confederation declares its readiness to negotiate savings taxation and customs fraud with the EU.

The Post Office is allowed by the government to increase the price of parcels in 2001, but not that of letters.

September

The Federal Council proposes to introduce an insurance system for maternity leave, to be paid by the employer.

The Federal Council issues a second revision of the draft law of the health insurance system (LAMal).

December

Four licenses for mobile UMTS communications are auctioned, collecting CHF 205 million, 5 million above the starting price.

The Parliament approves the electricity market reform that provides for a step-by-step liberalisation of the market that should end in six years.

The Confederation approves the budget for 2001 that aims at a zero deficit. The projection for the general government balance is a deficit of $\frac{1}{4}$ per cent of GDP.

2001**January**

The new tax on lorries negotiated with the EU is introduced.

The Post Office announces a restructuring plan that will suppress one out of every four offices.

The new program to reduce CO₂ emissions, based on voluntary measures, is launched by the government.

The new personnel law (Lpers) is implemented by the railway company (CFF) and the postal services (La Poste).

February

The Confederation accounts for 2000 are published, showing a larger-than-expected surplus of CHF 4.5 billion.

The Federal Council proposes a tax cut amounting to CHF 1.3 billion for households and for stamp duty on securities transactions.

March

The SNB lowers its reference interest rate band by 25 basis points to 2.75-3.75 per cent.

May

The electricity reform law will be challenged by referendum, which will take place during 2002.

The Federal Council declares its readiness to negotiate the entrance in the Schengen space of the European Union.

June

The Council of States approves the referendum that will decide on the entrance of Switzerland in the United Nations. It should take place in March 2002.

July

The Zürich stock market migrates to London by joining Virt-X, a new trading system that also quotes large European blue chips.

September

In a coordinated action with the European Central Bank (ECB) and the US Federal Reserve after the 11 September attacks, the SNB lowers interest rates by 0.5 percentage points to 2.75 per cent. Following an appreciation of the Swiss franc, the bank reduces rates a further half a point to 2.25 per cent.

Following financial problems, Swissair decides to merge with Crossair to create Swiss Air Lines. UBS and Credit Swiss provide a loan of CHF 1 billion to save Swissair from bankruptcy.

The National Council decides to allocate the revenue of the SNB on gold sales to the AVS, cantons and solidarity fund.

The canton of Vaud rejects by referendum the privatisation of a stake of its cantonal bank, which would have reduced the public stake to 33 per cent.

The National Council modifies the Federal Council draft tax reform and proposes tax cuts amounting to CHF 2.2 billion, including tax rebates for childcare and the exclusion of businesses and pension funds from the payment of the stamp duty tax.

October

Swissair is bankrupt. A new company created with the assets of Swisscom and Crossair (Crossair Plus) receives CHF 1.4 billion of public funds, and further help from a pool of private companies. The public sector will have 38 per cent of the capital of the new company.

The Federal Council will not privatise more of Swisscom.

November

Roche is condemned by the EU competition authorities to pay a sanction of CHF 675 million for participating in a vitamin cartel in Europe during the period 1989-99.

A draft reform of the cartel law that introduces sanctions for anti-competitive behaviour and incentives for denouncing cartels is submitted to the Parliament.

The Federal Council proposes the draft law (RPT) reforming spending assignments and financial transfers between the cantons and the Confederation.

December

The new budgetary rule ("*frein à l'endettement*") is approved by referendum. It will enter into force at the beginning of 2003.

The reference LIBOR interest rates is reduced to 1.75 per cent. The SNB updates its inflation projection.

The National Council approves a reform of the funding of the unemployment insurance system that includes a reduction of the maximum duration of benefits from 520 to 400 days.

The National Council approves the 4th revision of the invalidity insurance law.

The Belgian Parliament approves the bilateral agreements of the EU with Switzerland, paving the way to its implementation during the first half of 2002.

The Confederation approves its budget for 2002 that includes a deficit target of CHF 294 million. Spending priorities are training, health, justice and police. The federal government deficit is estimated to be ¼ per cent of GDP, consistent with the provisions of the "Budget Objective 2001".

2002

February

In the context of the preparation of the 2003 budget, the Federal Council announces that the new debt containment rule would require the federal budget to be in a surplus of CHF 100 million in 2003.

March

The Federation of Swiss doctors adopts *TarMed*, a uniform remuneration system for doctors throughout the country.

The Federal Office for Energy (OFEN) releases the regulation (*ordonnance*) of the electricity market.

The Parliament approves the new revision of the unemployment insurance bill.

In its quarterly meeting, the SNB leaves unchanged its key interest rate.

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