

CPB Memorandum

CPB Netherlands Bureau for Economic Policy Analysis



Sector : Competition and Regulation / International Economics
Unit/Project : Trade barriers in European services markets
Author(s) : Henk Kox and Arjan Lejour
Number : 130
Date : 1 December 2005

Liberalisation of the European services market and its impact on Switzerland

Assessing the potential impacts of following the EU's 2004 Services Directive

Abstract

This report estimates the quantitative economic implications of a possible decision by the Swiss government to fully adopt the European Commission proposals for a services directive. The European Commission's 2004 proposals for a Services Directive consists of measures to reduce or eliminate the obstacles of cross-border trade of services by introducing the 'country of origin' principle. It implies that regulation of the country of origin is relevant, and that the country of destination has no right to impose new regulation.

Our results indicate that the introduction of the 2004 EU services directive in Switzerland would very much intensify the economic relations between the service industries of Switzerland and the European Union. We have investigated the direct effects of mutual liberalisation of services markets. These are positive, both for Switzerland and the EU. Swiss exports of commercial services to the EU could increase by 40 to 84 per cent, while Swiss foreign direct investment stocks in EU services industries could increase by 20 to 41 per cent. EU services exports to Switzerland may rise by 41 to 85 per cent, while EU direct investment stocks in Swiss service markets could rise by 29 to 55 per cent.

Contents

Executive summary	3
1 Introduction	4
2 Switzerland and the European services market	6
3 Method of analysis and application to intra-EU trade and FDI	12
3.1 Regulation in service markets	12
3.2 Impact of regulation on trade and direct investment in services	13
3.3 Quantifying policy heterogeneity	16
3.4 Impact of regulation on bilateral trade in services	18
3.5 Impact of regulation on bilateral direct investment	19
3.6 The impact of the EU services directive on regulation heterogeneity	20
3.7 Impacts of the 2004 Services Directive in the EU: conclusions	23
4 Switzerland lines up with EU liberalisation of services markets: quantitative effects	24
4.1 Data and methodology	24
4.2 Results of the scenario analysis for Switzerland-EU services trade	26
4.3 Impacts on bilateral Switzerland-EU direct investment stocks	28
4.4 Impacts of the Services Directive on Swiss-EU trade and investment: conclusions	29
5 Discussion of the main results	30
6 Conclusions	36
Annex I Estimation Results	38
Annex 2	39
References	40

Executive summary

This report estimates the quantitative economic implications of a possible decision by the Swiss government to fully adopt the European Commission proposals for a services directive.

The European Commission's 2004 proposals for a Services Directive consists of measures to reduce or eliminate the obstacles of cross-border trade of services by introducing the 'country of origin' principle. It implies that regulation of the country of origin is relevant, and that the country of destination has no right to impose new regulation. The European Commission has also proposed measures to reduce the obstacles for the establishment of an affiliate abroad by introducing a single point of contact for the service providers to deal with all rules and procedures. Moreover, the EC also introduces mechanisms to build up trust of the member states in each other national regulatory regimes. The EU proposal is only partially aimed at reducing the level of service market regulation in Member States, although local producers might benefit as well from some proposed measures that focus on the elimination of unnecessary and EU-incompatible national regulations.

Our results indicate that the introduction of the 2004 EU services directive in Switzerland would very much intensify the economic relations between the service industries of Switzerland and the European Union. We have investigated the direct effects of mutual liberalisation of services markets. These are strictly positive, both for Switzerland and the EU.

Our estimates are presented as a range of likely outcomes, given statistical uncertainties and uncertainties related to the eventual implementation form of the services directive. The results must therefore be interpreted as a likely order of magnitude of the long-term effects rather than as point forecasts. Keeping this in mind, Swiss exports of commercial services to the EU could increase by 40 to 84 per cent, while Swiss foreign direct investment stocks in EU services industries could increase by 20 to 41 per cent. EU services exports to Switzerland may rise by 41 to 85 per cent, while EU direct investment stocks in Swiss service markets could rise by 29 to 55 per cent.

1 Introduction

This report estimates the quantitative economic implications of a possible decision by the Swiss government to fully adopt the European Commission proposals for a services directive.

A cornerstone of the European Union (EU) is the principle that goods, services, capital and labour can move freely between the member states. The internal market for goods functions rather well, after the implementation of the Single Market programme in 1988. This is however not the case for the internal market in services. In most service sectors, still less than 5 per cent of production is exported to other EU member states.¹ The European Commission in March 2004 launched its proposals for removing national regulatory obstacles for the growth of the intra-EU service market (European Commission 2004). A cornerstone of the present EU proposals is the introduction of the 'country of origin' principle. For bilateral service trade it implies that only the product-market regulation of the service provider's origin country applies. This restricts the right of the importing country to impose discriminatory or additional regulations for foreign service providers. The commission has also proposed measures to reduce the obstacles for the establishment of an affiliate abroad by introducing a single point of contact for the service providers to deal with all rules and procedures. Moreover, the EC also introduces mechanisms to build up trust of the member states in each other national regulatory regimes.

In recent months, the proposed EU Services Directive has been the object of much public discussion in EU countries. The European Commission has already announced some clarifications and changes in the proposals. The coming debate in the European Parliament (summer 2005) will probably result in further amendments.² The revised proposal will probably be available by the end of 2005 or early in 2006. If the EU Member States and the European Parliament agree with the revised proposal, the measures might still become effective in 2010.

In this study we have taken the 2004 European Commission proposals as point of departure for the economic impact analysis. We focus on the role of inter-country regulation differences as a barrier to international trade and direct investment in services. The prime goal of the 2004 EU services directive is to reduce the role of these policy differences. CPB has quantified the possible impacts of these proposals on intra-EU service trade and direct investment in services. The results of that quantitative assessment are published in three publications.³ We found that the proposed EU directive may lead to a substantial increase in bilateral trade and investment among EU member states. Commercial services trade could increase by about 30% to 60%.

¹ Cf. Kox, Lejour and Montizaan (2004a).

² E.g. draft proposals by the European Parliament Committee on the Internal Market and Consumer Protection (EP, 2005).

³ Kox, Lejour and Montizaan (2004a; 2004b); Kox and Lejour (2004c).

Foreign direct investment stocks in services could increase by about 20% to 35%. Both the trade effect and the FDI effect will take some years to fully materialise.

The present report quantifies the possible effects on the bilateral services trade and FDI between Switzerland and EU member states for a scenario in which Switzerland voluntarily adopts the EU services directive. We assume that this adoption goes along with a formal agreement between Switzerland and the EU on mutual recognition of services regulations. This would mean full integration of Switzerland in the European services market. The trade and direct investment effects that we have estimated for this scenario are well in the range that was already found for the trade and FDI effects between EU member states. The only exception in this regard is that foreign direct investment in the Swiss services economy would increase by 29 to 55 per cent, which is more than in most EU states.⁴

This report was prepared on request of the Swiss State Secretariat for Economic Affairs (SECO), Division Growth and Competition Policy, as extension of earlier CPB work on trade and direct investment in the intra-European services market.

Structure of the report

The present report has the following structure. Chapter 2 outlines the basic facts about the current Swiss-EU trade and direct investment in services. Chapter 3 summarises the method and main results of CPB's earlier quantitative economic assessment of the proposals for EU member states. Chapter 4 extends this analysis to Switzerland: what would be the impacts for Swiss-EU trade and direct investment in services if Switzerland applied the same liberalisation proposals? Chapter 5 discusses the quantitative results, and analyses in which areas of product-market regulation in Switzerland the 2004 Services Directive could have most impacts. Finally, chapter 6 summarises the results.

⁴ The main reason for this strong inward FDI effect is that the present Swiss regulations for FDI are more restrictive than holds on average for EU member states. Lowering the investment restrictions for EU services firms thus results in a relatively strong improvement of Swiss attractiveness as an investment destination.

2 Switzerland and the European services market

Switzerland is surrounded by EU countries, and has many economic relations with the European Union. This chapter presents background statistics on the services trade between Switzerland and the EU, and on foreign direct investment relations between Switzerland and the EU. For consistency reasons with the following chapters, the emphasis is on data for the reference years 2001 for trade data, and 1999 for direct investment data.

Trade in services

Table 2.1 shows the composition of Swiss services exports and imports in 2001. The data include total Swiss services trade, including trade between Switzerland and non-EU countries. Switzerland has a remarkably large surplus in its services trade: the services exports are twice the amount of services imports. Most of this net position stems from financial services. If we

Table 2.1 Composition of Switzerland services trade in 2001

	Exports		Imports	
	Value in millions of US dollars	Share (%) in services exports	Value in millions of US dollars	Share (%) in services imports
TOTAL SERVICES	27,726	100.0	13,386	100.0
Transportation	4,439	16.0	3,246	24.2
Travel	7,509	27.1	6,345	47.4
Communications services	761	2.7	917	6.9
Insurance services	1,064	3.8	74	0.6
Financial services	7,628	27.5	651	4.9
Other business services	4,692	16.9	1,973	14.7
Personal, cultural and recreational services	6	0.0	65	0.5
Government services, n.i.e.	1,626	5.9	110	0.8
GOODS	86,457		89,211	
TOTAL GOODS AND SERVICES	114,183		102,597	

Source: OECD (2003) and own calculations.

compare this to other EU countries (cf. Table 2.2), the 27.5% contribution of financial services to total services exports is very high. In contrast, the Swiss imports of financial services are quite small. Travel services (mainly tourism) form nearly half of the services imports. The share of *'other business services'* –the sector that may be most affected by the EU services directive– is now relatively low in Swiss services trade.

Table 2.2 EU services exports, 2001

	Value in billion US dollar	% share in total exports
Transportation	144.5	22.8
Travel	176.2	27.8
Communication services	14.6	2.3
Construction	15.9	2.5
Insurance	15.1	2.4
Financial services	44.3	7.0
Other business services ^{a)}	183.8	29.0
Royalties and licence fees	20.5	3.2
Personal services	6.9	1.1
Government services	11.4	1.8
Total services	633.1	100.0

a) Including Computer and information services.

Source: Kox, Lejour and Montizaan (2004b), based on data from OECD (2003a) and own calculations.

Table 2.3 focuses on the most important trading partners of Switzerland in other commercial services trade. This sector includes other business services, information services, finance and insurance and personal, cultural and recreational services. The limited statistical information available on Swiss services exports does not allow us to split off the data on *Finance and insurance* from the rest of services trade. Even at the aggregation level of *other commercial services*, not all trade data are available for bilateral trade with the EU15 countries.

What table 2.3 does show is the strong geographical concentration in Swiss services trade. Germany is the most important export destination. Together with Belgium-Luxembourg it accounts for half the Swiss services exports to the EU. Four other countries (Italy, France, UK and The Netherlands) together account for another 40 per cent of commercial services exports, each country receiving about 10 per cent.

On the import side, the country concentration is hardly less. Germany and the United Kingdom supply about half of Switzerland's imports of commercial services. Other relevant trading partners are France, Italy, and The Netherlands. The Swiss total services trade balance with the EU is about in equilibrium: the value of EU import and export is approximately the same. In combination with Table 2.1 this suggests that the large trade surplus in financial services is mostly accounted for by the non-EU countries. However, the low quality and disclosure of services trade data may also play a role.

Table 2.3 Trade relations between Switzerland and the EU in 'other commercial services'^{b)}, 2001

	Exports		Imports	
	Value in millions of US dollars	Share (%) in services exports	Value in millions of US dollars	Share (%) in services imports
Germany	5,104	34	3,970	24
Belgium-Luxembourg	2,517	17	2,517	15
Italy	1,824	12	1,579	9
France	1,579	10	1,778	11
Netherlands	1,534	10	1,295	8
United Kingdom	1,366	9	3,921	23
Austria	653	4	787	5
Sweden	371	2	662	4
Spain	..	..	..	..
Denmark	..	..	..	..
Portugal	107	1	109	1
Greece	88	1	131	1
Finland	76	0	46	0
Ireland	..	..	..	..
Subtotal disclosed EU15 ^{a)}	15,217	100	16,794	100

Source : OECD (2004) and own calculations

a) Most figures are based on the registered observations of the partner trading countries of Switzerland. Denmark, Ireland, and Spain do not report bilateral services trade flows with Switzerland.

b) The aggregate "Other commercial services" includes: Trade and Distribution, Business Services, Hotels and Restaurants, Personal Services, Construction, and Financial Services. Transport and travel services are excluded.

Foreign direct investment

In 1999, the value of Swiss FDI stock in the EU15 amounts to about 100 billion US dollars. A quarter of it is invested in the United Kingdom, and 18 per cent in Germany. Other important EU destinations for Swiss investors are France, Belgium-Luxembourg, and the Netherlands. Further details are shown in Table 2.4.

The inward FDI stock in Switzerland coming from the EU15 countries amounts only to 50 billion US dollar in 1999. This amount may be an underestimation, because data on some bilateral FDI stocks are missing. Table 2.4 displays that France, Germany and the Netherlands are the most important investors in Switzerland. Note that these numbers refer to foreign direct investment in all sectors. There are no data on bilateral data FDI positions at a sectoral level.

Table 2.4 Foreign direct investment relations between Switzerland and the EU: FDI stocks, 1999

	Swiss FDI stocks in the EU		EU FDI stocks in Switzerland	
	value in millions of US dollars	Share (%) in total	value in millions of US dollars	Share (%) in total
United Kingdom	23,858	24	5,054	10
Germany	17,820	18	11,618	23
Netherlands	12,554	13	14,013	28
France	11,041	11	10,221	21
Belgium-Luxembourg	8,498	9	3,749	8
Ireland	6,841	7	..	..
Italy	6,498	7	3,679	7
Spain	3,708	4	326	1
Austria	2,950	3	366	1
Greece	1,542	2	..	..
Denmark	790	1	549	1
Sweden	1,334	1	283	1
Finland	1,193	1	..	..
Portugal	1,162	1	..	..
Total EU15	99,789	100	49,858	100

Source : OECD (2004) and data reported by SECO, own calculations.

Although there is no public information available on the sectoral classification of bilateral FDI stocks, we have some information for the total outward and inward FDI stock for Switzerland. Table 2.5 shows that the Swiss total outward FDI stock in 1999 amounts to 200 billion US dollars. According to table 2.4 about half of the stock is destined to the EU15. Two-thirds of the total stock is invested in services sectors, which is higher than in the EU. Moreover, 85 per cent of all Swiss services FDI is concentrated in the finance and insurance sector. The remaining Swiss FDI stock in the services sector mainly originates from the business services sector. The

Table 2.5 Sectoral classification of Swiss FDI stocks (outward and inward), 1999

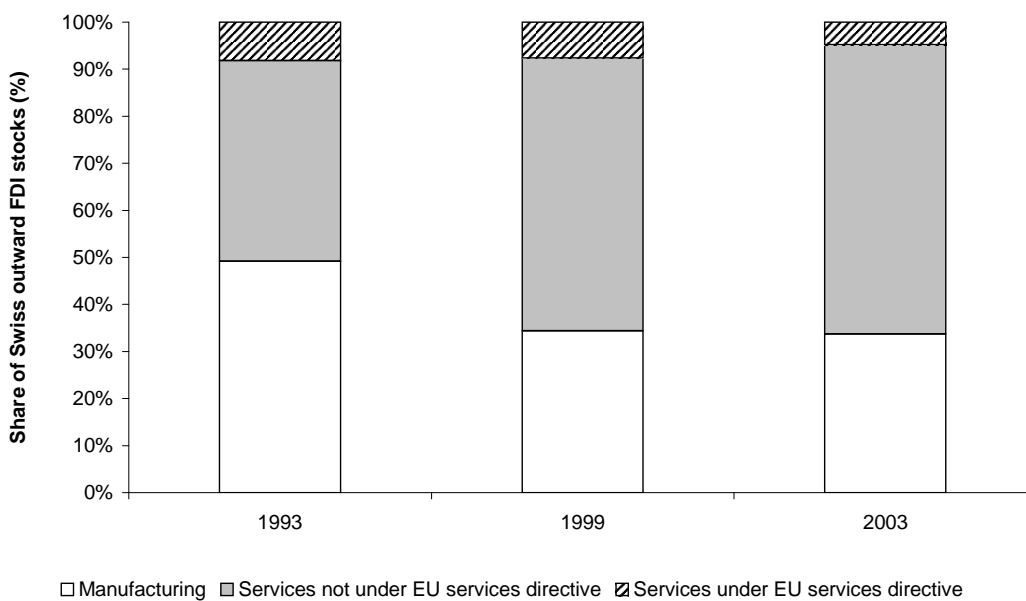
	Outward FDI stock		Inward FDI stock	
	Millions US\$	share (%)	Millions US\$	share (%)
Manufacturing	71,176		11.719	
Total services	135,915	100.0	69.161	100.0
Trade services	8,483	6.2	10.020	14.5
Finance and insurance	115,352	84.9	55.155	79.7
Transport	4,663	3.4	1.772	2.6
Other services	7,417	5.5	2.213	3.2
Total goods and services	207,091		80.879	

Source: Schweizerische Nationalbank

foreign FDI stocks in Switzerland (from all origins) is also mainly invested in financial services. Only a small part invested in the other services and trade sector, much less than in the EU on average (cf. Kox, Lejour and Montizaan 2004a).

The sectoral structure of FDI implies that most of the Swiss outward direct investment stock is in sectors that will be unaffected by the EU services directive: banking, insurance, financial holding companies and transport (see Figure 2.1).

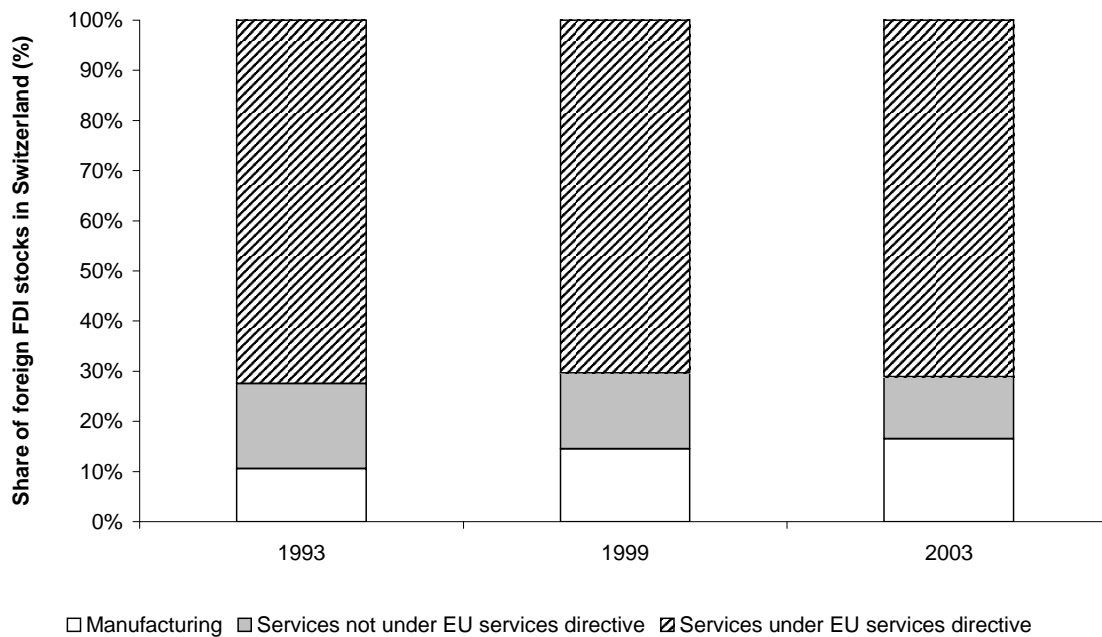
Figure 2.1 Sectoral structure of Swiss outward foreign direct stocks and the EU services directive



Data source: Schweizerische Nationalbank / CPB

Figure 2.2 shows that for foreign direct investment stocks in Switzerland a completely different picture holds: more than 70 per cent of these investments is in sectors that will be affected by the EU services directive: trade, distribution and 'other services'. The share of these sectors in inward foreign direct investment stocks has hardly changed during last decade.

Figure 2.2 Sectoral structure of foreign direct investment stocks in Switzerland and the EU services directive



Data source: Schweizerische Nationalbank / CPB

3 Method of analysis and application to intra-EU trade and FDI

Services trade is hardly subject to import tariffs. Most trade barriers in services are of a non-tariff nature. National regulations play an important role in this respect. This chapter analyses the nature of non-tariff barriers to international services trade, and especially the negative impact of international regulation differences on international trade and investment in services. We describe a new method to quantify the impact of policy heterogeneity on trade and direct investment. This methodology is used for estimating the impact of policy heterogeneity on intra-EU trade and FDI in services. The results of that analysis are applied for assessing the impacts of the EU services directive.

3.1 Regulation in service markets

Most services cannot be stored and shipped abroad (in a box or as computer file), but require the proximity of producers and consumers. Either the consumer has to move abroad as is often the case with tourism services. Or the producer has to go to the country of the consumer for delivering the service. The latter is the dominant form of delivering services in another country. The service provider himself, his staff, his equipment and material therefore cross national borders. Foreign service delivery may mean that some or all stages of the business process take place in the country where the service is delivered. It is here that the non-tariff barriers generally start, because the service provider becomes subject to local regulations in the foreign market. Many national service markets are still regulated in some way or another. The text box briefly deals with the reasons for this.

Regulation of service markets

Service markets have a long history of regulation. Partly, this is due to the externalities that the production of some services may cause for third parties, such as environmental effects of transport, the impact of bank reliability on the overall financial system, or the safety aspects of building design. But there is also a more innate cause for government intervention that may have to do with the very nature of the service product. The production and consumption of the service often cannot be separated in place and time, making it difficult to standardise a service product. The quality of the product is *a priori* uncertain for the consumer – more than in the case for commodities. For a simple service product such as a haircut, this uncertainty problem is generally manageable. The information problem for the individual service buyer is however more serious in the case of complex professional and medical services that require the input of specialist knowledge. The buyer of such service products is confronted with a structural information asymmetry as to the quality of the service product, sometimes even after the transaction took place. To counter such structural asymmetries (and their imminent fraud possibilities) government authorities sometimes apply strict regulations for certain professional services.

The OECD has developed aggregate indexes which makes it possible to compare the relative regulation intensity of countries. These indexes have been developed for product-market regulation and for restrictions on foreign direct investment.⁵ Table 3.1 presents the levels of product market regulation and FDI restrictions for Switzerland and the EU countries. According to these OECD indicators, Switzerland has a relatively high degree of regulation. The level of

Table 3.1 Aggregate OECD indicators for the relative intensity of product-market regulation and FDI restrictions, EU countries, 1998

Country	Product-market regulation	FDI restrictions	Country	Product-market regulation	FDI restrictions
United Kingdom	0.5	0.064	Portugal	1.7	0.157
Ireland	0.8	0.074	Finland	1.7	0.177
Netherlands	1.4	0.083	Switzerland	1.8	0.169
Germany	1.4	0.084	Belgium	1.9	0.091
Denmark	1.4	0.087	France	2.1	0.111
Sweden	1.4	0.140	Greece	2.2	0.130
Austria	1.4	0.268	Italy	2.3	0.097
Spain	1.6	0.165	Czech Republic	2.9	0.196
Hungary	1.6	0.173	Poland	3.3	0.249

Sources: Product-market regulation indices are from Nicoletti et al. (2000), and FDI restriction indices are from Golub (2003).

product market regulation is slightly above the average. The Swiss regulation intensity is comparable to that of Portugal and Finland; it exceeds the EU average. Switzerland is also relatively restrictive towards FDI, although the restrictiveness indicator is not as high as it is for Austria.

3.2 Impact of regulation on trade and direct investment in services

The fact that a national service market *is* regulated is not in itself an important barrier to international services trade. This can be shown by a little thought experiment. Suppose that all countries have the same type of regulation, for instance, a qualification requirement for providers producing a particular service product. Since qualification costs are mainly fixed costs, it would cost an exporting firm a one-off effort to comply with the qualification criteria. Once having incurred these fixed qualification costs, the firm would even have an incentive to export more. The reason is that by enlarging its production through exports into other countries, the firm could reap economies of scale (cost economies).

⁵ Nicoletti *et al.* (2000); Golub (2003).

Impact of heterogeneous regulation for services markets

However, such a uniform system of regulation for service markets does not exist. Countries often have little confidence in the quality of each other's legal regimes and are reluctant to adapt their own regimes where necessary to facilitate cross-border activities. Each authority uses its own system of quality safeguards for domestic consumers and service buyers, also within the European Union. This system of national regulations is a nuisance for international service trade. Service exporters are confronted with different regulations and requirements in each destination country. The system leads to additional costs for exporters, and thus weakens international competition in services markets.⁶ As Table 3.2 indicates, such compliance costs typically are one-off fixed costs.

Table 3.2 National product-market regulations for service markets

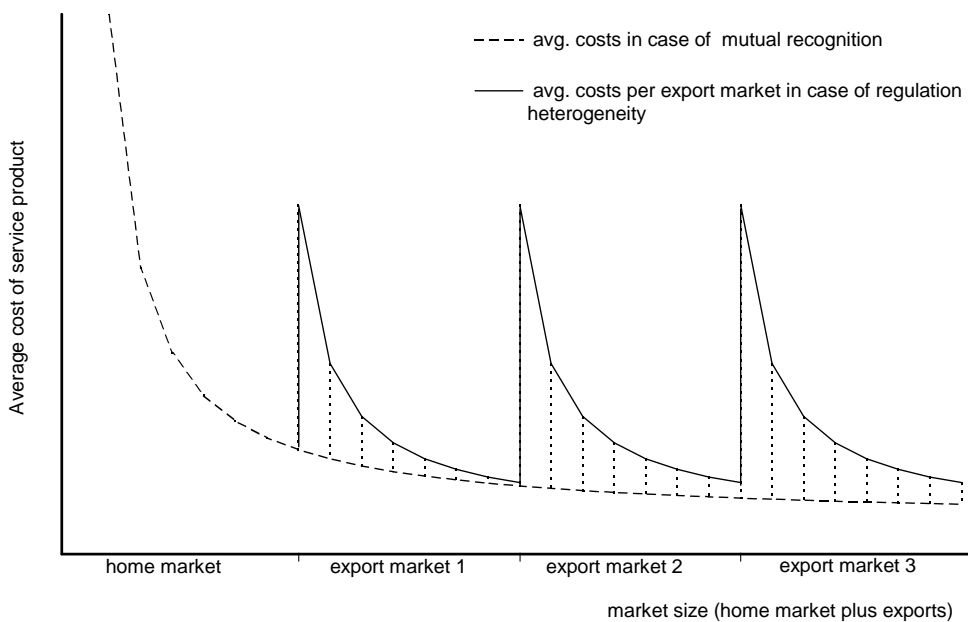
Examples of national product-market regulations	Primary impact on:			
	Fixed costs	Variable costs	Import price	Import volume
Restrictions on import quantity (entry prohibition, local content requirements, restricted network access)				X
Controlled import prices (reference, minimum or maximum price)			X	
Market access costs related to import volume (entry or exit taxes, visa costs, differentiated tariffs by firm origin, postal tariffs)		X		
Firm start-up licenses and associated authorisation requirements	X			
Service-providing personnel must have locally recognised professional qualifications (may necessitate re-qualification)	X			
Obligatory membership of local professional association	X			
Juridical requirements (owners or managers of service-providing firm must have local residence or nationality, firms must have a specific legal form)	X			
Requirement that service providers have nationally recognised liability insurance or professional indemnity insurance.	X			
All service activities in export destination country fully subject to regular administrative and tax procedures	X			
Limitations on inter-professional co-operation or on the variety of services provided by one firm (may require unbundling)	X			
Temporary service personnel from origin country fully subject to rules of the social security system of the destination country	X			
Impediments for material inputs, suppliers and personnel from origin country (may require a search for new local suppliers)	X			

⁶ O'Mahony and Van Ark (2003) find that the widening gap between the EU and the US in economic growth per capita is to an important extent caused by the fact that the USA succeeds better than the EU in raising the productivity of service industries. It might be very difficult to strengthen the competitiveness and efficiency of service industries without alleviating the effects of national regulatory barriers to the cross-border provision of services.

National regulations and requirements for service providers are not in themselves a trade barrier. Often these requirements are not explicitly discriminatory for foreign providers, because both domestic and foreign providers have to comply with the same regulation. Such national regulations can therefore be fully compatible with WTO principles of non-discrimination.

The national regulations become trade barriers because they mostly do not acknowledge that the foreign firm may already have qualified itself. Hence, the problem is the additivity: each national requirement comes *on top of* (similar or slightly different) regulations that the firm has already complied with in its home market or in other countries where it operates. Meeting the national requirements often creates additional costs that are not related to the trade volume. The foreign service firm must re-qualify itself before being allowed to sell one single product.⁷

Figure 3.1 Cost effect of regulation heterogeneity (perspective of exporting firm)



Policy heterogeneity results in a wasteful duplication of fixed policy compliance costs, with two economic consequences for the individual services firm. First, it causes additional fixed costs for entering a particular foreign market. Secondly, it leads to a loss of potential scale economies. Due to the fact that the fixed qualification costs are *specific* for a national market, the costs cannot be spread out over production that is destined for other foreign markets. Regulation heterogeneity restricts the realisation of economies of scale in complying with

⁷ Such costs often are independent of firm size. The result is that in relative terms the strongest effect of policy heterogeneity falls upon small- and medium-size service firms.

regulations, and it increases costs for internationally operating services firms. Figure 3.1 pictures both effects for a services firm that subsequently enters three export markets, and each time incurs the same level of additional fixed qualification costs.⁸ Foreign market entry each time goes along with increased average costs.

Implicitly, Figure 3.1 shows the cost and efficiency gains that can be attained by a system that allows firms to achieve more economies of scale in dealing with regulation requirements. The dotted line reflects the situation that would arise if countries mutually recognise home-country qualifications of the firm. It shows that cost and efficiency gains can be attained by an internationally co-ordinated qualification system for service firms.

Summing up, regulation-caused fixed qualification costs are not in themselves an impediment to international trade in services. The regulatory requirements do become a trade barrier if they differ strongly between countries.⁹ Stated differently, we may derive the hypothesis that bilateral service trade between countries is negatively affected by the degree of policy heterogeneity for service markets. Kox, Lejour and Montizaan (2004a) found strong econometric evidence in support of this hypothesis. In the remainder of this chapter we briefly describe our earlier empirical work and how this formed the basis for assessing the quantitative impacts of the proposed EU services directive.

3.3 Quantifying policy heterogeneity

Policy heterogeneity has many dimensions, and does not easily lend itself for a quantitative analysis, let alone in an internationally comparative context. In order to test the predictions from our theoretical framework empirically, we have developed a new index for bilateral policy heterogeneity.

For this we could build on the path-breaking data work by a team of OECD researchers (cf. Nicoletti *et al.* 2000). They developed an international database on national product-market regulations, mainly fed by official inputs from governments of OECD member states. The OECD International Regulation database is by far the most detailed and structured dataset on national differences in product-market regulation. It gives per country information on more than

⁸ The underlying model assumes that the exporter sequentially enters other EU markets, after exploiting the local demand potential of each market. The impact on the establishment of foreign firms (FDI, commercial presence) is more or less similar.

⁹ The cost for complying with regulation then turn into country-specific sunk costs for market entry. In case of failure in the foreign market, they become exit costs. The lump-sum costs create a market-entry hurdle, with a negative impact on exports. In relative terms, this hurdle is largest for small- and medium-sized firms. Firms only enter the market if the expected sales are large enough to cover the sunk market-entry costs.

1000 aspects of product-market regulation.¹⁰ From this we made a selection of almost 200 most relevant indicators of national product-market regulation that may affect the services markets in which we are interested. These comparison items are of a more or less general nature, or at least they can be considered as a *pars pro toto* for a country's overall approach in product market regulation.

Our index for bilateral regulatory heterogeneity builds upon detailed pair-wise comparisons between individual countries for specific aspects of product market regulation, both regarding the form and the contents of the regulation. For each policy comparison item we assess whether two countries are identical or not. It yields information of a binary nature: when the two countries differ in that particular regulation item we assign a value of 1, and when there is no difference we assign the value of 0 to the regulation heterogeneity index. In this way we may derive an average policy heterogeneity index for each specific country pair. Its value ranges between 1 in case of complete dissimilarity and 0 in case of identical product-market regulations. The overall index of bilateral heterogeneity in product-market regulation can also be decomposed for policy sub-domains. For the decomposition we use the OECD's own classification (Table 3.3).

Table 3.3 Product-market regulation: OECD classification of domains and sub-domains

	Main policy domains	Policy sub-domains
Inward-oriented policies	State control (SC)	* Size and scope of public enterprise sectors (PO) * Existence and extent of special right over business enterprises (IBO) * Use of price controls, legislative control and other command and control regulations in the economy (IBO)
	Barriers to entrepreneurship (BE)	* Barriers to competition (BC): legal entry conditions, anti-trust exemptions, registering, competition restrictions, regulation of public procurement * Regulatory and administrative opacity (RAO): licensing and permit systems, communication and implementation of rules and procedures * Administrative burdens on start-ups (ABS): start-up procedures, entry capital, start-up delays
Outward-oriented policies	Explicit barriers to trade and investment (EBT)	* Barriers for foreign share ownership * Discriminating procedures in trade and investment * Trade tariffs
	Other barriers (TOB)	* Regulatory trade barriers

¹⁰ The base year is 1998. In the mean time, an updated version has been published for the year 2003 (cf. Conway *et al.* 2005), but the 1998 version is still perfect in combination with trade and FDI data for 1999-2001 and 1999, respectively.

The structure of regulatory heterogeneity by policy sub-domain in a nutshell yields much information about policy differences between countries. As an illustration Table 3.4 presents data on the average policy heterogeneity between EU member states, and between Switzerland and EU member states. Swiss product-market regulation –except for the sub-domain *State control*– on average differs a bit more from the EU14 average than EU14 countries differ among themselves.

	Average between EU member states, EU14	Between Switzerland and EU14 member states
Regulatory and administrative opacity	0.38	0.39
Explicit barriers to trade and investment	0.21	0.28
Administrative burdens on start-ups	0.55	0.63
Barriers to competition	0.32	0.34
State control	0.42	0.41
<u>Overall PMR heterogeneity indicator</u>	0.39	0.41

Note: a) Excluding Luxembourg due to insufficient data.

3.4 Impact of regulation on bilateral trade in services

A next step is to assess econometrically which areas of policy heterogeneity have most impact on bilateral trade and on FDI in services.

In the empirical analysis we focus on bilateral trade in commercial services, hence disregarding government services. Moreover, we exclude *transport* and *tourism* because both services trade categories are quite special. *Transport* because it is strongly related to the total volume of goods trade, and is subject to particular regulatory regimes quite different from overall product-market regulation (e.g. because of environmental externalities). *Tourism* trade is excluded because in most of this trade consumers rather than producers move to the foreign country, and because it to a large extent is determined by factors like climate, weather conditions and cultural heritage. Tourism is also subject to relatively few product-market regulations.

For explaining bilateral commercial service trade between EU member states we use a gravity model as is widely applied for the analysis of bilateral trade patterns. The model explains the bilateral trade from the following variables: the distance and differences in languages between countries (as measure for trade costs), GDP in the countries of origin and destination (as a measure for market size and scale effects), and regulatory barriers. For the latter we investigate

both the impact of the level and the heterogeneity of national product market regulations. We correct for unobserved variables in both origin and destination country.

The full regression results with regard to bilateral trade are specified in the first two data columns in Annex 1. The empirical analysis shows that the level and the heterogeneity of regulation between countries has a significant negative effect on bilateral trade in commercial services.¹¹ Various specifications and estimation methods lead to similar results: the intensity of regulation and its heterogeneity are variables that significantly affect the volume of trade in commercial services. The most important conclusions for the EU14 are:

- Heterogeneity in two areas of product market regulation (*Barriers to competition* and *Explicit barriers to trade and investment*) has a markedly negative impact on trade in commercial services. Heterogeneity in *Barriers to competition* has the largest effect of both.
- A high level of domestic regulation has a negative impact on the origin country's services exports and a negative impact on service imports from other EU Member States.
- Variables for the other components of regulatory heterogeneity have no statistically significant impact on commercial service trade.

3.5 Impact of regulation on bilateral direct investment

A similar econometric exercise was done for testing the hypothesis that policy heterogeneity and regulation intensity have a negative impact on foreign direct investment in services. For explaining bilateral direct investment stocks we adapted the gravity model with elements of the knowledge-capital model developed by Markusen (2002). The latter model is becoming the standard explanation for direct investment decisions by multinational enterprises. It allows for an integrated treatment of trade and direct investment decisions in international service markets.

For explaining bilateral direct investment stocks we use the following variables: the distance and differences in languages between countries (as measure for trade costs), GDP in the country of origin and destination (as a measure for market size and scale effects), the labour productivity level in the service sector of the origin country (as a measure for technological advantage), and regulatory barriers. For the latter we investigate both the level and the heterogeneity of national product market regulations and FDI restrictions. We correct for

¹¹ The OECD data for trade in commercial services includes Trade and Distribution, Business Services, Hotels and Restaurants, Personal Services, Construction, and Financial Services. We do not consider Transport services and Travel services, since they are not covered by the EU directive, and because they differ with regard to non-tariff barriers (cf. Kox, Lejour and Montizaan, 2004a: Ch.4).

unobserved variables in origin and destination country. The regression equation for explaining bilateral direct investment stocks is specified in the Annex 1 (last two data columns).

The augmented gravity model explains a considerable part of the variation in bilateral FDI stocks in the EU. A strong tendency is that countries with a higher domestic productivity in services tend to invest more in other countries. With regard to the policy variables, we find that:

- Direct investment between EU countries is strongly (and in a negative sense) affected by the regulation level and by inter-country heterogeneity of product-market regulation.
- Countries with the lowest level of *product market regulation* export and invest more abroad than others.¹²
- FDI restrictions in the destination country have a strong negative impact on foreign direct investment.
- Heterogeneity in *Barriers to competition* and *State control* have a significant and negative effect on the level of bilateral FDI. Heterogeneity in the other indicators for regulatory heterogeneity have no statistically significant impact on FDI stocks.

3.6 The impact of the EU services directive on regulation heterogeneity

The results so far were used for quantifying the possible impacts of the European Commission's 2004 proposals for a Services Directive.

The EC undertook a comprehensive stocktaking of the obstacles hampering the functioning of the internal EU market for services. It resulted in a nightmarish picture of the state of the EU's Internal Market for Services (EU 2002). All stages of the business process are affected by a proliferation of national regulations: the establishment of firms, the use of inputs, promotional activities, distribution forms of a service, the sales process itself, and the after-sales organisation. Foreign service providers often are confronted by national regulations such as requirements for additional professional qualification, local residence of management, additional professional insurance, and constraints on the use of inputs from their origin country. Sometimes regulation procedures and their application are not transparent, thus creating uncertainty for foreign service providers.

It is in response to this situation that the European Commission launched its *Proposal for a Directive of the European Parliament and of the Council on Services in the Internal Market* (EC 2004). It is aimed at boosting the EU's Internal Market in Services by reducing regulation-based impediments to trade and investment in the service market. The European Commission

¹² This is in line with the Porter hypothesis that countries with open markets become more competitive, and will easier operate in foreign markets (Porter 1990).

regards these measures as a cornerstone for raising the productivity and competitiveness of the European economy, since more than half the latter consists of market services. The proposals consists of measures to reduce or eliminate the obstacles of cross-border trade of services by introducing the ‘country of origin’ principle. It implies that regulation of the country of origin is relevant, and that the country of destination has no right to impose new regulation. The commission has also proposed measures to reduce the obstacles for the establishment of an affiliate abroad by introducing a single point of contact for the service providers to deal with all rules and procedures. Moreover, the EC also introduces mechanisms to build up trust of the member states in each other national regulatory regimes. The EU proposal is only partially aimed at reducing the level of service market regulation in Member States, although local producers might benefit as well from some proposed measures that focus on the elimination of unnecessary and EU-incompatible national regulations.

The EU directive does not cover all service sectors and not all elements of product-market regulation. Some policy sub-domains are more affected than others. At a detailed level we assessed the concordance between the OECD regulation item and the aspects covered by the proposed EU directive. Based on close reading we assess for each of 187 policy items whether the policy item will be unaffected, moderately affected or heavily affected by the EU directive. If a policy areas is not affected, heterogeneity with regard to that regulation item persists after full implementation of the EU proposals.

This item-wise assessment has been aggregated for five sub-domains of product-market regulation. If all items in a policy sub-domain would be fully affected by the EU directive, the expected impact is a 100% reduction of heterogeneity among EU member states. If no items are affected, the expected impact is 0%. Because of the uncertain impact of the EU directive on regulatory items that are partially affected, we use a bandwidth indicating a minimum and a maximum effect. Table 3.5 gives the results.

Table 3.5 Expected impacts of proposed EU measures on intra-EU policy heterogeneity, by sub-domain

Components of heterogeneity indicator and covered policy domains	Reduction of the components of indicator due to implementation EU directive ^{a)}
Regulatory and administrative opacity	66 – 77 %
Explicit barriers to trade and investment	73 – 78 %
Administrative burdens on start-ups	34 – 46 %
Barriers to competition	29 – 37 %
State control	3 – 6 %
Overall PMR heterogeneity indicator	reduction 31 – 38 %

^{a)} Based on detailed item-wise consideration of the match between the EU directive and all 187 specific regulation items selected from the OECD database.

The table shows that the heterogeneity components *Regulatory and administrative opacity* and *Explicit barriers to trade and investment* are heavily affected by the EU directive. The heterogeneity components *Administrative barriers for start-ups* and *Barriers to competition* are moderately affected by the EU directive and the component *State control* is hardly affected. The *State control* regulation items mainly relate to network sectors, and the latter are not included in the proposed EU directive. The numbers in table 3.5 are used later on to assess the impact of less regulation heterogeneity on trade and direct investment.

Impact of the EU proposals: scenario analysis

The estimated coefficients from the preferred regressions for bilateral service trade and for bilateral direct investment stocks (cf. Annex 1) have been used as the basis for quantifying the potential impact of the EU proposal in the internal market for services. For direct investment, our scenario includes the effect of a lower *level* of national FDI restrictions in the destination countries.¹³ We did not account for different implementation stages, but instead we quantified the effects of full implementation of the EU directive, indicating the bandwidth of the resulting maximal effects on service trade and direct investment.

This procedure yielded the following results. The full implementation of the proposed directive could increase commercial service trade by 30 per cent to 62 per cent, while the percentage increase of foreign direct investment in services in the EU is between 18 per cent and 36 per cent. The bandwidth in outcomes represents the uncertainty in the effect of the EU directive on the reduction in regulatory heterogeneity (cf. Table 3.5), and the statistical uncertainty with regard to parameter estimates.¹⁴ The increase in trade and FDI is mainly caused by a reduction in the heterogeneity of the *Barriers to competition*. This policy sub-domain appears to be of crucial importance for services trade and investment.

¹³ For the level effect we assume a 30% reduction for investors from other EU member states. This is a conservative estimate, since the many existing FDI restrictions are explicitly discriminatory with regard to foreign firms.

¹⁴ We used an interval of the estimated coefficient plus and minus one standard error.

Table 3.6 Policy factors underlying the increase in trade and direct investment in commercial services

	Minimum effects	Maximum effects
<u>Total intra EU trade increase</u>	30	62
of which:		
* Increase due to reduced heterogeneity in <i>Barriers to competition</i>	25	51
* Increase due to reduced heterogeneity in <i>Explicit barriers for trade and investment</i>	5	11
<u>Total intra EU FDI increase</u>	18	36
of which:		
* Increase due to reduced heterogeneity in <i>Barriers to competition</i>	7	18
* Increase due to less FDI restrictions (level effect) ^{a)}	11	16
* Increase due to less heterogeneity in <i>State control</i>	0	2

a) In the scenarios we assume that investors from other EU countries will experience a 30% reduction in the level of FDI restriction of the destination country.

For FDI, also the reduced intensity of FDI restriction is of importance, as shown in Table 3.6. Our analysis concentrated on cumulative direct investment *stocks*, and since the adaptation of FDI stocks occurs mainly through annual FDI flows, the effect on annual direct investment flows will be much higher. To what extent this is the case depends on the length of the adaptation period.

3.7 Impacts of the 2004 Services Directive in the EU: conclusions

We derive firm indications that the EU service sector might benefit from the proposed EU directive through a substantial increase in international trade and investment. Assuming full implementation of the 2004 proposals, we estimate that bilateral commercial service trade could increase by about 30 to 62 per cent. Commercial service trade forms about one-tenth of total trade within the EU. This suggests that total intra-EU trade could increase by 2 to 5 per cent. FDI stocks in services could increase by about 18% to 36%.

These results indicate an order of magnitude. The impact analysis focused on trade flows and investment stocks; it does not provide a full welfare analysis. Possible welfare effects may result from price and income effects of the measures, but like the possible effects on innovation and productivity these have not been part of our analysis.

4 Switzerland lines up with EU liberalisation of services markets: quantitative effects

This chapter quantifies what happens if the Swiss government decides to voluntarily apply the 2004 EU Services Directive, and reaches an agreement with the EU on mutual recognition of national service regulations. We focus on the impacts for Swiss-EU trade and direct investment between Switzerland and the EU.

4.1 Data and methodology

The basic methodology for Switzerland is the same as applied for the EU. We comment first on the data basis for this analysis and subsequently on the trade elasticities for policy heterogeneity.

A first step was to complete the dataset of bilateral trade in commercial services between Switzerland and all individual EU member states. The reference period here again is 1999-2001. The bilateral data on services trade are drawn from OECD (2004) and supplementary data supplied by SECO. We use the OECD trade aggregate "*Other commercial services*" that includes trade in *Trade and Distribution, Business Services, Hotels and Restaurants, Personal Services, Construction, and Financial Services*. Transport and travel services are excluded. Missing trade data have been completed by using data from partner countries. In some cases the reporting country and the partner country reported different bilateral trade. For these cases we applied the Lejour-Verheijden (2004) regression method for identifying the countries whose reported bilateral trade coincided best with the mirror report by their partner countries. This was used for a statistical reliability ranking of countries. By using – in case of conflicting data– the data of the most reliable reporter of the two reporters we have completed our bilateral trade dataset. Data for 2000 and 2001 are deflated to correct for nominal differences caused by US dollar inflation.

The same data procedure has been applied for bilateral data on inward foreign direct investment stocks of Switzerland and the EU member states. The data represent the total stock of foreign direct investment in a particular reporting country, with the stock detailed per country of origin, i.e. per country from where the multinational company invested in the reporting country.¹⁵ We used OECD data on bilateral FDI stocks and supplementary data for Switzerland, supplied by

¹⁵ Bilateral FDI stocks are used rather than annual FDI flows, for three reasons. The first reason is a very practical one: to our knowledge there is no authorised international dataset available for bilateral FDI flows. The second reason is that stock data are closer to the level of actual production by foreign affiliates than annual flow data. Thirdly, bilateral FDI flows are very volatile from one year to another; a few large transactions like mergers may cause large swings in the annual data, sometimes causing negative flows.

SECO. Missing data were completed by using data from the partner country. In those cases that the reporting country and the partner country published substantially different figures on bilateral FDI stocks, we applied a similar procedure for selecting the most reliable reporting country as we applied for bilateral trade data. All bilateral FDI data are for the year 1999. A serious handicap for our research is that –as of yet– no authorised international data set is available for bilateral FDI stocks in the services sector. Sectoral data of FDI stock and flow data are available on a country basis, but not on a bilateral basis with countries of origin and destination specified. We therefore use bilateral total FDI stock data, covering all sectors.¹⁶ In order to prevent that these non-services effects create a bias in estimating the impact of the EU directive on investment, we apply a weighting procedure to exclude effects on sectors that are not affected by the proposed EU directive. Chapter 5 discusses the sensitivity of our FDI results for this weighting procedure.

For Swiss-EU services trade we have applied the same elasticities as we have estimated for the impact of regulatory heterogeneity on intra-EU trade in other commercial services. The reason for doing so is that in our opinion Swiss data fit very well within the sample of the EU data. The sample homogeneity holds for all relevant data areas:

- Policy variables: Swiss - EU data with regard to the relevant policy variables do not display systematic or very large differences. The bilateral heterogeneity in product market regulation between Switzerland and the EU countries is in a range comparable to bilateral heterogeneity among EU countries (cf. Table 3.4). The same holds for the level of regulation intensity (Table 3.1).
- Services trade: Swiss services trade (other commercial services) is relatively large compared to other small countries like Ireland or Austria. It is, however, comparable to that of Belgium-Luxembourg and the Netherlands, and smaller than German and UK services trade. So, the Swiss trade data fit in our EU sample.
- Bilateral FDI stock: The Swiss outward and inward FDI positions are comparable to those of Belgium-Luxembourg and Italy. The positions of the UK, Germany and the Netherlands are larger, while those of most other EU countries are smaller.
- Trade to GDP relation: Swiss exports of 'other commercial services' to the European Union represent some 6 per cent of Swiss GDP. This is a bit higher than for the EU average, which is due to the fact that the EU is dominated by some large countries where trade openness is generally a bit lower than in small countries. It is therefore more appropriate to compare Switzerland with a country like Belgium; other commercial services trade and GDP of Belgium

¹⁶ FDI stocks in non-service sectors are also affected by the heterogeneity and a country's relative intensity of product-market regulation.

are almost identical with the Swiss figures. Hence, with respect to the relation between GDP and services trade, Switzerland is completely in line with comparable EU countries.

- Relative size of Switzerland in independent variables: both for total services and for 'other commercial services' it holds that the size of Swiss services trade is approximately 4 per cent of trade by EU15 countries. Swiss FDI stocks (all sectors) in the EU represent about 8 per cent of total intra-EU FDI stocks.

We have tested whether the Swiss data are outliers in the EU sample using Grubb's test for outliers.¹⁷ This test was done for each additional Switzerland-related observation. Grubb's test is applied for the following regression variables: bilateral other commercial services trade, bilateral FDI stocks, GDP, distance, language distance, level of product market regulation, level of FDI restriction, barriers for entrepreneurship, and the heterogeneity variables on administrative barriers to start-ups, Barriers to competition, Regulatory and administrative opacity, State control, and Explicit barriers to trade and investment. The hypothesis that an observation is no outlier was never rejected for the Switzerland-related observations. The results of these tests also indicate that the Swiss data points fit well in the EU sample.

Given the data analysis so far it is highly unlikely that the inclusion of Swiss data points would substantially alter the EU parameter estimates and the results of the scenario analysis. The estimation results will not change significantly if the data for Switzerland are included in the sample. This allows us to use our earlier elasticity estimates (cf. Annex 1) to analyse the impact of the EU Services directive on bilateral trade between Switzerland and the EU. Moreover, it should be noted that the scenario outcomes are expressed as an order of magnitude, and must also be interpreted as such rather than as single-point forecasts. Effects of small changes in parameters due to the inclusion of the Swiss data points most likely fall within the presented uncertainty range.

4.2 Results of the scenario analysis for Switzerland-EU services trade

The scenario analysis uses the estimated elasticities of bilateral services trade with respect to the policy variables in origin and destination country, especially those that reflect the response of bilateral trade to a higher or lower level of policy heterogeneity.¹⁸ Using these elasticities and

¹⁷ This test takes the absolute value of an observation minus the mean. This absolute value divided by the standard deviation. The mean and standard deviation are calculated using the EU sample excluding the Swiss data. The test results are available upon request.

¹⁸ The estimated coefficients (and their standard errors) are reported in the second data column of Annex I. Note that exports are estimated in logs. So the new export level equals the old export level (2001) times the exponent of the product of the change in heterogeneity and the estimated coefficient.

the expected impact of the Services Directive on policy heterogeneity (reported in Table 3.5), we calculate the expected change in bilateral services exports. The change percentage is different for every bilateral relation between Switzerland and individual EU countries, because the heterogeneity in regulation and the change induced by the EU directive varies for each country pair.

Our estimates are presented as a range of likely outcomes. The reason for presenting a range rather than a single figure is that the estimates are subject to two types of uncertainty, one statistical and one on the eventual impact of the directive on bilateral policy heterogeneity. With respect to the latter we use the bandwidth on the expected impact of the EU directive on the heterogeneity indicators as presented in table 3.5. The statistical uncertainty reflects the confidence interval of our elasticity estimates: we use an interval of the estimated parameter plus and minus one standard error. We combine the two kinds of uncertainties for presenting the effects for Switzerland in three variants: a minimum-effect variant, a central variant and a maximum-effect variant.

Table 4.1 Impact on Swiss-EU bilateral trade in commercial services^{b)} (% change based on 2001 data)						
Effects	Minimum variant ^{a)}		Central variant ^{a)}		Maximum variant ^{a)}	
	Swiss exports	Swiss imports	Swiss exports	Swiss imports	Swiss exports	Swiss imports
Total effect on Swiss– EU trade in 'other commercial services'	40	41	60	60	84	85
of which:						
* due to less heterogeneity in <i>Barriers to competition</i>	30	30	44	45	63	63
* due to less heterogeneity in <i>Explicit barriers to trade and investment</i>	10	10	16	16	22	22

^{a)} The central effect is calculated by using the parameter estimates and the middle of the bandwidth on the expected impact of the directive on regulatory heterogeneity. The minimum-effect variant uses the values of the parameter estimates minus one standard error and taking the minimum value of the bandwidth in table 3.5. The maximum-effect variant uses the values of the parameter estimates plus one standard error, and takes the maximum value of the bandwidth in table 3.5.

^{b)} Data for 'Other Commercial Services'. This aggregate includes trade, distribution, business services, hotels and restaurants, personal services, construction and financial services. See main text for a note on the impact of financial services.

Table 4.1 presents the results for Switzerland, and decomposes it with respect to the underlying policy factors. The effects on Swiss commercial services exports to the EU vary, according to the scenario involved, between +40 and +85 per cent, whereas the effects on imports vary between +41 and +85 per cent. This is a fairly broad range. About three-quarters of the effect stems from reduced heterogeneity in the policy sub-domain *Barriers to competition*, the rest from reduced heterogeneity in *Explicit barriers to trade and investment*. The reduced heterogeneity in the latter category is more important for Switzerland than for the EU15. This

explains to a large extent the bigger trade effects of the proposed directive for Switzerland than these are for the EU15.

4.3 Impacts on bilateral Switzerland-EU direct investment stocks

Our econometric results indicate that the size of bilateral FDI stocks is significantly affected by the heterogeneity and intensity in regulation. Using these quantitative results we now investigate the effects on Swiss-EU bilateral FDI stocks when Switzerland would also apply the 2004 EU proposal for a services directive.

As a starting point we take the preferred parameter estimates (reported in the last data column of Annex 1). Note that the bilateral FDI stocks are also affected by a lower *level* of national FDI restrictions in the destination countries.¹⁹ To account for the effects of the proposed directive on bilateral regulation heterogeneity we again use the expected impact of the EU directive on the regulation heterogeneity (Table 3.5). For every country pair we estimated the expected change in FDI stocks that results from the implementation of the EU directive; it differs for each bilateral relation, because the heterogeneity in regulation varies for per country pair. Because the estimated coefficients apply to *total* FDI stocks, we correct the total result for the share in FDI stock of those services that are covered by the proposed EU directive. Here we apply a correction factor based on EU data. Chapter 5 shows the impact of alternative assumptions. The resulting changes in FDI stocks are presented as a bandwidth between a maximum and a minimum effect, in the same way as was done for bilateral exports. The central variant is calculated by using the parameter estimates and the middle of the bandwidth on the expected impact of the directive on regulatory heterogeneity. Table 4.2 presents the effects on bilateral FDI stocks between Switzerland and the EU, together with a decomposition showing the impacts of the underlying policy factors.

Swiss FDI stocks in the EU services sector could increase by 20 to 41 per cent as a consequence of applying the services directive, while EU foreign direct investment stocks in the Swiss services sector could increase by 29 to 55 per cent. The largest effects are caused by the fact that the directive will reduce the heterogeneity in *Barriers to competition*, and the level of *FDI restrictions*. A much smaller positive effect results because the services directive may also

¹⁹ For the level effect we assume a 30% reduction for investors from EU member states. This is a conservative estimate, because the directive does not aim at abandoning national regulation or lowering national regulation levels. However, some elements of the directive (single point of contact, electronic handling of administrative requirement for firm start-ups, a ban on discriminative requirements for foreign firms) will effectively lower the level of regulation as experienced by investors from Switzerland and the EU member states.

Table 4.2 Impact on Swiss-EU bilateral FDI stocks in services (% change based on 1999 data)

	Minimum variant ^{a)}		Central variant ^{a)}		Maximum variant ^{a)}	
	Swiss outstock	Swiss instock	Swiss outstock	Swiss instock	Swiss outstock	Swiss instock
Total effect on Swiss– EU direct investment	20	29	29	41	41	55
of which:						
* due to less heterogeneity in <i>Barriers to competition</i>	9	9	15	15	23	23
* due to less heterogeneity in <i>State control</i>	0	0	1	1	2	2
* due to lower level of FDI restrictions ^{c)}	10	20	13	25	16	31

^{a)} The central effect is calculated by using the parameter estimates and the middle of the bandwidth on the expected impact of the directive on regulatory heterogeneity. The minimum-effect variant uses the values of the parameter estimates minus one standard error and taking the minimum value of the bandwidth in table 3.5. The maximum-effect variant uses the values of the parameter estimates plus one standard error, and takes the maximum value of the bandwidth in table 3.5.

^{b)} This refers to possible negative effects from reduced heterogeneity in other policy areas (*Regulatory and administrative opacity, administrative barriers to start-ups*) and a reduced level of regulation with respect to *Barriers to entrepreneurship*. These effects are based on the non-significant elasticities for the policy variables reported in Annex I (last data column: destination countries). We apply the estimated parameters, uncorrected for the standard error. The negative impact of reduced heterogeneity in *Administrative barriers to start-ups* dominates.

^{c)} Each country's FDI restrictions for the base year are derived from the OECD (Golub et al. 2003).

reduce some heterogeneity in *State control*. The effects on inward stocks are larger than for the outward FDI stocks, because Switzerland has more restrictive inward-FDI barriers compared with the EU. The reduction in these (higher) barriers causes larger effects.

4.4 Impacts of the Services Directive on Swiss-EU trade and investment: conclusions

Our results indicate that the introduction of the 2004 EU services directive in Switzerland would very much intensify the economic relations between the service industries of Switzerland and the European Union. We have only investigated the direct effects of mutual liberalisation of services markets. These are strictly positive, both for Switzerland and the EU. Swiss exports of commercial services to the EU could increase by 40 to 84 per cent, while Swiss foreign direct investment stocks in EU services industries could increase by 20 to 41 per cent. EU services exports to Switzerland may rise by 41 to 85 per cent, while EU direct investment stocks in Swiss service markets could rise by 29 to 55 per cent.

5 Discussion of the main results

This chapter discusses the quantitative results in the light of the underlying assumptions and data limitations.

Structure of bilateral effects: decomposition of bilateral trade effects

In Table 5.1 the expected increase in Swiss trade in ('other') commercial services is decomposed by EU partner country. Even more than for the aggregate trade effects, the decomposed results should be interpreted as an order of magnitude rather than as point estimates. Keeping this in mind, Switzerland's largest bilateral trade increase will arise -in absolute terms- with partner countries United Kingdom, and Germany. The trade increase with other large trade partners (France, Italy, Netherlands and Belgium) will be much smaller. In relative terms, trade increases most substantially with France and Italy.

Table 5.1 Decomposition of expected increase in bilateral trade of Switzerland with EU14 members due to the Services Directive, Central variant, reference year 2001

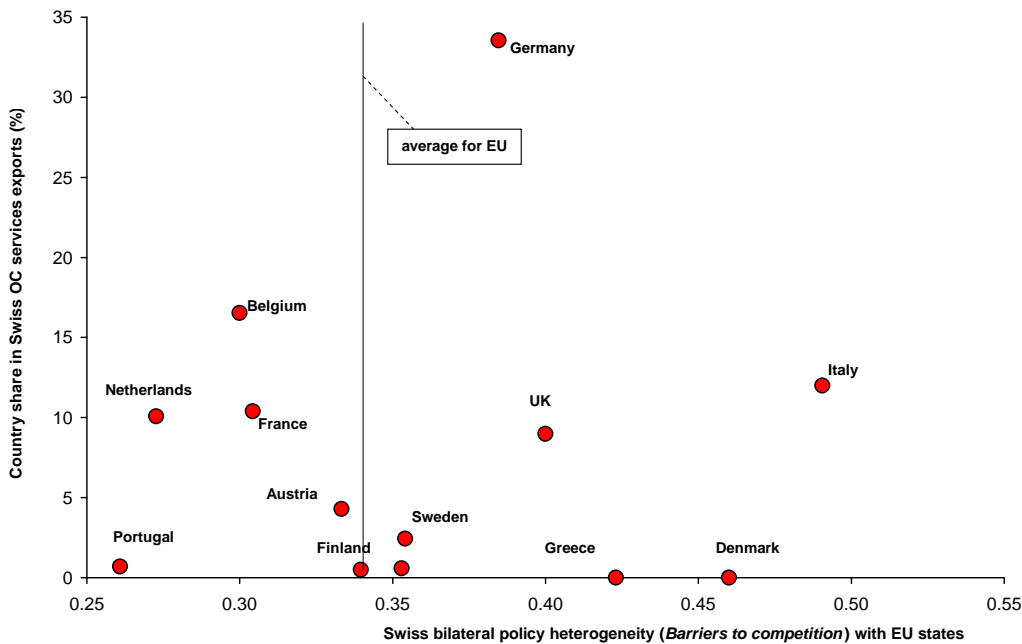
Partner country	Increase % of Swiss services exports to partner country ^{a)}	Increase % of Swiss services imports from partner country ^{a)}	Value of actual Swiss imports in 2001 (mln. USD)
Denmark	..	..	..
Greece	64	64	84
Sweden	65	65	427
United Kingdom	64	64	2493
Austria	58	58	454
Belgium-Luxembourg	42	42	1058
Finland	55	55	25
France	70	70	1236
Germany	57	57	2267
Ireland	..	..	..
Italy	80	80	1255
Netherlands	62	62	796
Portugal	48	48	52
Spain	..	..	..
Total trade Switzerland	60	60	3384

^{a)} Trade in other commercial services. Note that for the central scenario it holds that the percentage point increase of Swiss service exports is about the same as the increase in imports with a particular partner country.

The differences in the bilateral trade effects per EU country are explained by the fact that the policy heterogeneity differs for each specific country pair. Two policy sub-domains are most decisive for bilateral services trade: *Barriers to competition* and *Administrative barriers to*

start-ups. Three-quarters of the effect is caused because the EU services directive effectively lowers heterogeneity with regard to *Barriers to competition*. Figure 5.1 plots the country structure of Swiss services exports against bilateral policy heterogeneity in the policy sub-domain *Barriers to competition*.

Figure 5.1 Structure of Swiss exports of commercial services to EU countries and bilateral policy heterogeneity with regard to policy sub-domain 'Barriers to competition'



Note: Refers to trade in 'other commercial services' in 2001. Source: own calculations.

The largest effects occur in trade with those partner countries that (before introduction of the EU directive) have product-market regulations that are very different from Switzerland. Figure 5.1 shows that this is the case with its important trading partners like Germany, Italy, and the UK. Adoption of the EU services directive by Switzerland is expected to have the largest impact in the bilateral trade with these partner countries.

A similar country decomposition can be made for bilateral FDI relations with EU member states. Table 5.2 indicates that there is a clear difference between absolute and relative gains in bilateral FDI traffic per country.

In relative terms, Swiss FDI stock is expected to grow most in Austria, Finland and the Mediterranean countries (Italy, Spain, Portugal), whereas the increase in Ireland, the

Netherlands, and Belgium-Luxembourg will be small. The Italian, Danish, Spanish and British FDI position in Switzerland are expected to register the largest relative growth. In absolute terms, however, the value of Swiss FDI in UK, Germany, and France will grow most. Conversely, the absolute value growth of German, French and Dutch FDI stocks will account for most of the increased EU FDI position in the Swiss services sector.

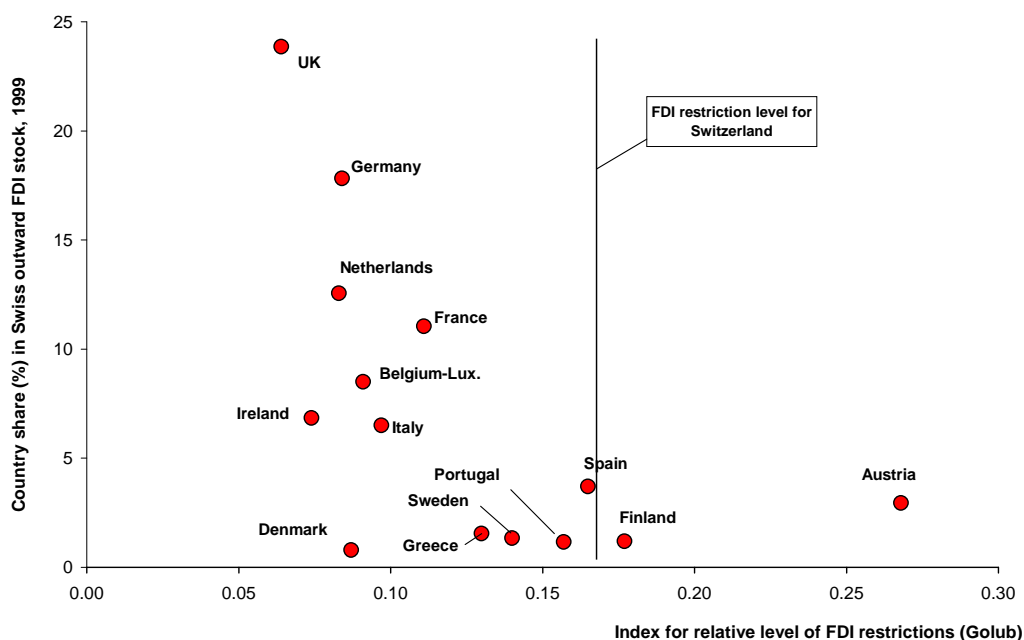
Table 5.2 Decomposition of expected change in Swiss - EU service FDI relations due to Services Directive, Central variant, reference year 1999

Partner country	Absolute increase in Swiss outward FDI stock (mln USD) ^{a)}	Increase % of Swiss outward FDI stock in services ^{b)}	Absolute increase in Swiss inward FDI stock (mln USD) ^{a)}	Increase % of Swiss inward FDI stock in services ^{b)}
Austria	1849	63	147	40
Spain	1655	45	148	45
Finland	504	42	..	..
Italy	2379	37	1802	49
Sweden	476	36	116	41
Portugal	400	34	..	..
Greece	522	34	..	..
Denmark	262	33	258	47
Germany	5120	29	4998	43
France	3182	29	3986	39
United Kingdom	6404	27	2221	44
Belgium-Luxembourg	2167	25	1453	39
Netherlands	2808	22	5157	37
Ireland	1255	18	..	..
Total for Switzerland	28982	29	20286	41

^{a)} See section 4.3 for calculation method. ^{b)} Compared to initial (1999) bilateral FDI stock.

The differences in bilateral FDI stocks are mostly due to the effect of the services directive on bilateral policy heterogeneity with respect to 'Barriers to competition' (already shown in Figure 5.1), and to the diminished level of regulatory restrictions for investing foreign services firms. Figure 5.2 displays the initial level of FDI restrictions per country against the country share in Switzerland's outward FDI stocks. The picture clarifies why FDI in Austria is likely to grow.

Figure 5.2 Structure of Swiss outward stocks (1999) and the level of FDI restrictions per countries



Note: A country's relative intensity of FDI restrictions is measured by the OECD index described in Golub (2003).

Impact on total FDI stock and on services FDI stock

Due to lacking data on bilateral FDI in specific services sectors we use data for total FDI stock (all sectors). Hence, we must account for the fact that the services directive will affect only part of the total bilateral FDI stocks. In the period 1998-2000, one-third of average FDI inflows in the EU went to sectors that are covered by the proposed EU directive (Kox, Lejour and Montizaan 2004a). Note that the current share is partly the endogenous result of the present-day policy heterogeneity and sectoral FDI restrictions in the EU countries. We therefore kept on the conservative side when we used a 0.33 correction factor for the expected FDI stock increase for services.

This 0.33 correction factor has also been used for Switzerland in Table 4.2. However, in chapter 2 it was shown that the sectoral structure of Swiss inward and outward FDI stocks is quite different (see Figures 2.1 and 2.2). This suggests that for Switzerland we should apply a differentiated correction factor for inward and outward FDI stocks. Otherwise we might over-estimate the effect of the services directive on Swiss outward FDI stocks, while at the same we under-estimate its impacts on Swiss inward FDI stocks.

By way of sensitivity analysis, Table 5.3 shows the results of different weighting assumptions. For Swiss outward FDI stocks we use a 0.10 correction factor and for foreign FDI stocks in

Switzerland we use a 0.70 correction factor. This correction would imply a larger difference between expected changes in incoming and outgoing FDI stocks due to the services directive.

Table 5.3 Impact on Swiss-EU bilateral FDI stocks in services: alternative weighting assumptions ^{a)} for the services share in total FDI stock (% change based on 1999 data)

	Minimum variant ^{a)}		Central variant ^{a)}		Maximum variant ^{a)}	
	Swiss outstock	Swiss instock	Swiss outstock	Swiss instock	Swiss outstock	Swiss instock
Total effect on Swiss– EU direct investment	6	64	9	90	12	122

a) For the results in this table it is assumed that the services directive affects 0.10 of Swiss FDI outstock and 0.70 of the total foreign FDI stocks in Switzerland. (In Table 4.2 an identical weighting factor of 0.33 was assumed for both cases).

A note on the role of financial services in Swiss services trade

As shown in chapter 2, Switzerland has a relatively high component (27%) of financial services in its services trade: 27 per cent of its total services trade to all countries, and 50 per cent of 'other commercial services' exports to all countries. The data in chapter 2 suggest that the share of financial services in trade with EU countries might be somewhat lower. Nevertheless, some caution is required as to translating the predicted rise in EU-Swiss services trade into growth figures at a lower aggregation level than 'other commercial services' (for which the parameter estimates were done). Financial services as such will be hardly affected by the EU services directive.²⁰ Further sectoral specification would require additional research and more sector-specific bilateral trade details.

Missing country observations

The trade effects of the services directive in Table 4.1 are calculated on the basis of an incomplete set of data on bilateral services trade between Switzerland and the EU. Data are lacking on commercial services trade between Switzerland and Spain, Denmark and Ireland. Although these countries probably are no large trading partners, we have reason to expect that completion of the data set with these countries would increase rather than diminish the relative trade growth due to the services directive. This is due to the structure of bilateral policy heterogeneity of Switzerland with these countries.²¹ Annex 2 shows the value of the relevant policy variables.

²⁰ There could be some effects in the area of auxiliary financial services.

²¹ The structure of Swiss policy heterogeneity in the policy sub-domain Barriers to competition with the missing countries is larger than with the EU average, while the opposite holds for policy heterogeneity in the sub-domain Administrative barriers to start-ups (a countervailing force, cf. Table 4.1).

Indirect welfare effects of a common adoption of the EU services directive

The assessment in this report did not quantify other economic effects outside the trade and FDI effects. More openness and less policy heterogeneity in the European market for services may however cause several – often positive– indirect welfare effects. We mention the most important indirect welfare effects.

The overall economic growth potential of both Switzerland and the EU countries may improve due to a rise in the productivity of the service industries. There are three main channels along which the productivity jump may take shape: (a) the service sector will be better capable of exploiting scale economies through production for other European markets; (b) the competitive selection process will become stronger, causing under-performing firms to exit sooner; and (c) the influx of more productive foreign subsidiaries raises overall productivity of domestic service industries.²² With regard to the last-mentioned productivity effect, several authors provide evidence for the existence of positive spillovers in the USA and the UK (Haskel *et al.* 2002; Keller and Yeaple 2003). It is plausible that in services, and in particular intermediate services, positive spillovers will occur through forward linkages.²³

Another welfare effect runs through changes in the domestic producer surplus. In some cases, the profits of domestic service producers will be affected positively due to more export possibilities. Less competitive domestic producers will see their profits affected in a negative way. The balance between these two groups of producers may differ by economic sector. It would require much more detailed research to quantify this effect.

More competition lowers service prices, brings more variety and innovative service products. This will enlarge the consumer surplus, and thus benefit domestic consumers in Switzerland and EU countries. Also producers can benefit. Since the most internationally traded services are intermediate inputs, more European competition will lower intermediate unit input prices and thus make the client industries more competitive in both Switzerland and the EU.

²² Cf. Görg and Strobl (2001).

²³ Smarzynska Javorcik (2004) argues that such spillovers mainly arise through vertically oriented FDI (backward linkages, joint ventures) and not so much through horizontal direct investments and forward linkages. This analysis is only based on evidence for manufacturing, however.

6 Conclusions

The present report quantifies the possible effects on the bilateral services trade and FDI between Switzerland and EU member states for a scenario in which Switzerland voluntarily adopts the EU services directive. We assume that this adoption goes along with a formal agreement between Switzerland and the EU on mutual recognition of services regulations. This would mean full integration of Switzerland in the European internal services market.

The European Commission's 2004 proposals for a Services Directive consists of measures to reduce or eliminate the obstacles of cross-border trade of services by introducing the 'country of origin' principle. It implies that regulation of the country of origin is relevant, and that the country of destination has no right to impose new regulation. The European Commission has also proposed measures to reduce the obstacles for the establishment of an affiliate abroad by introducing a single point of contact for the service providers to deal with all rules and procedures. Moreover, the EC also introduces mechanisms to build up trust of the member states in each other national regulatory regimes. The EU proposal is only partially aimed at reducing the level of service market regulation in Member States, although local producers might benefit as well from some proposed measures that focus on the elimination of unnecessary and EU-incompatible national regulations.

Our results indicate that the introduction of the 2004 EU services directive in Switzerland would very much intensify the economic relations between the service industries of Switzerland and the European Union. We have investigated the direct effects of mutual liberalisation of services markets. These are strictly positive, both for Switzerland and the EU.

Our estimates are presented as a range of likely outcomes, given statistical uncertainties and uncertainties related to the eventual implementation form of the services directive. The results must therefore be interpreted as a likely order of magnitude of the long-term effects rather than as point forecasts. Keeping this in mind, Swiss exports of commercial services to the EU could increase by 40 to 84 per cent, while Swiss foreign direct investment stocks in EU services industries could increase by 20 to 41 per cent. EU services exports to Switzerland may rise by 41 to 85 per cent, while EU direct investment stocks in Swiss service markets could rise by 29 to 55 per cent. The expected impacts on bilateral Swiss-EU FDI stocks would change if we account for the different composition of the Swiss inward and outward FDI stocks. Correcting for this, the Swiss outward FDI stocks would increase by only 6 to 12 per cent, while the inward FDI stock might increase by 64 to 122 per cent.

Our analysis does not take into account more indirect welfare effects of the EU services directive such as those related with more competition, lower services prices, positive effects for labour productivity growth in services, and the supply of innovative services from abroad.

Annex I Estimation Results

Explaining bilateral trade in commercial services and bilateral direct investment

Transformed variables, DM method ^{b)}	FIML ^a estimation method		SUR ^a estimation method	
Dependent variable:	Bilateral service exports		Bilateral direct investment	
Country perspective	Origin country ^{c)}	Destination country ^{d)}	Origin country ^{c)}	Destination country ^{d)}
<u>Gravity variables</u>				
In GDP Origin	0.83*** (0.04)		0.95*** (0.09)	
In GDP Destination		0.88*** (0.04)		0.74*** (0.06)
In Distance	-0.85*** (0.09)	-0.85*** (0.09)	-1.08*** (0.13)	-1.08*** (0.13)
Language distance	-0.71*** (0.22)	-0.71*** (0.22)	-0.15 (0.14)	-0.15 (0.14)
In(productivity service sector origin country)			0.05*** (0.01)	
<u>Policy level variables</u>				
Product market regulation. origin country	-0.34*** (0.09)		-0.87*** (0.18)	
Barriers to entrepreneurship, destination country		-0.03 (0.07)		-0.21 (0.13)
FDI regulation indicator, destination country				-8.27*** (1.42)
<u>Policy heterogeneity variables</u>				
Heterogeneity, Barriers for start ups	0.35 (0.36)	0.35 (0.36)	0.48 (0.44)	0.48 (0.44)
Heterogeneity Barriers for competition	-3.10*** (0.55)	-3.10*** (0.55)	-3.28*** (0.84)	-3.28*** (0.84)
Heterogeneity Regulatory and admin. opacity	-0.23 (0.33)	-0.23 (0.33)	-0.89 (0.56)	-0.89 (0.56)
Heterogeneity State control	0.74 (0.58)	0.74 (0.58)	-1.43*** (0.77)	-1.43*** (0.77)
Heterogeneity Barriers to trade and investment	-0.86*** (0.30)	-0.86*** (0.30)	0.30 (0.54)	0.30 (0.54)
Year dummy 2000	0.01 (0.10)	0.01 (0.10)		
Year dummy 2001	-0.01 (0.10)	-0.01 (0.10)		
Constant	dummies for destination significant	dummies for origin significant	dummies for destination significant	dummies for origin significant
Number of observations	481	481	195	260
Adjusted R-squared	0.70	0.61	0.66	0.47

Notes on Annex I:

a) Estimation method: Full Information Maximum Likelihood (FIML) for trade and Seemingly Unrelated Regression (SUR) for FDI stocks. In both cases, applying simultaneous estimation of equations for origin and destination countries. All bilateral variables expressed as deviation from the mean. This is done separately from the origin (exporting) country perspective, and from the destination (host) country perspective. Erkel-Rousse and Mirza (2002) impose identical coefficients for distance and language in the equations for origin and destination country. We do the same and also impose identical coefficients for policy heterogeneity for origin and destination country. Absolute value of standard error in brackets. Codes: *** = significant at 1% level; ** = significant at 5% level; * = significant at 10% level.

b) DM method (described in Kox and Lejour 2005).

c) In case of origin country perspective, we use data expressed as deviations from the mean host (destination) country, thus allowing for estimation of exporter-specific variables.

d) With the destination country perspective, we use data expressed as deviations from the mean exporter (origin) country, thus allowing for estimation of destination-specific variables.

Data sources: for country regulation data: Nicoletti, Scarpetta and Boylaud (2000); Golub (2003); for bilateral trade data: OECD (2003); FDI data: OECD..

Annex 2

Table A2 Structure of Swiss policy heterogeneity with the EU countries for which no bilateral service trade data are available

	Switzerland vs. EU average	Switzerland vs. Spain	Switzerland vs. Ireland	Switzerland vs. Denmark
Bilateral policy heterogeneity with respect to <i>Barriers to competition</i>	0.35	0.42	0.21	0.43
Bilateral policy heterogeneity with respect to <i>Explicit barriers to trade and investment</i>	0.22	0.30	0.33	0.40

References

- Brenton, P., F. DiMauro and M. Lücke, 1999, Economic integration and FDI: An empirical analysis of foreign investment in the EU and in Central and Eastern Europe, *Empirica*, 26.
- CSES, 2001, *Barriers to international trade in business services - Final Report*, Study commissioned by the European Commission, CSES / European Commission, Brussels.
- Conway, P., V. Janod and G. Nicoletti, 2005, Product-market regulation in OECD countries: 1998 to 2003, Document no. ECO/WKP(2005)6, OECD, Paris.
- EC 2002, *Report from the Commission to the Council and the European Parliament on the State of the Internal Market for Services*, Brussels.
- EC 2004, *Proposal for a Directive of the European Parliament and of the Council on Services in the Internal Market*, SEC(2004) 21, Brussels.
- Egger, P. and M. Pfaffermayr, 2004, Foreign direct investment and European integration in the 1990s, *The World Economy*, 27 (1).
- EP Committee on the Internal Market and Consumer Protection, 2005, *Draft report on the proposal for a directive of the European Parliament and of the Council on services in the internal market*, (COM(2004)0002 – C5-0069/2004 – 2004/0001(COD)), 2004/0001(COD), Rapporteur: Evelyne Gebhardt, April 8th 2005, European Parliament.
- Erkel-Rousse, H., and D. Mirza 2002, Import price elasticities: reconsidering the evidence, *Canadian Journal of Economics*, 35, p. 282-306.
- Golub, S.S., 2003, *Measures of restrictions on inward foreign direct investment for OECD countries*, OECD Economic Department Working paper no. 357, Paris.
- Görg, H. and E. Strobl, 2001, Multinational companies and productivity spillovers: a meta-analysis, *Economic Journal*, 111 (475), November.
- Hardin A. and L. Holmes, 1997, Service trade and foreign direct investment, Australian Productivity Commission, <http://www.pc.gov.au/ic/research/information/servtrad/index.html>.

- Haskel, J., S. Pereira and M. Slaughter, 2002, Does foreign direct investment boost the productivity of domestic firms?, NBER Working Paper No. 8724, NBER, Cambridge MA.
- Keller, W. and S. Yeaple, 2003, Multinational enterprises, international trade and productivity growth: firm-level evidence from the United States, NBER Working Paper No. 9504, NBER, Cambridge MA.
- Kox, H., A. Lejour and R. Montizaan, 2004a, *The free movement of services within the EU*, CPB Document 69, The Hague, <http://www.cpb.nl/eng/pub/document/69/doc69.pdf>
- Kox, H., A. Lejour and R. Montizaan, 2004b, *The intra-EU service market and the proposed EU directive on the Internal Market for services*, CPB Research Memorandum, The Hague, <http://www.cpb.nl/nl/pub/memorandum/111/memo111.pdf>
- Kox, H. and A. Lejour, 2004c, *The effects of policy heterogeneity on trade and investment in services: empirical analysis for the EU*, Paper presented at OECD Workshop on Services, 15-16 November 2004, OECD Document DSTI/EAS/IND/SWP/AH(2004)21, OECD, Paris.
- Kox, H. and A. Lejour, 2005, *Regulatory heterogeneity as obstacle for international services trade*, CPB Discussion Paper No. 49, CPB Netherlands Bureau for Economic Policy Analysis, The Hague, <http://www.cpb.nl/eng/pub/discussie/49/disc49.pdf>
- Lejour, A., and J-W. de Paiva Verheijden, 2005, *The EU internal market in services: is Canada an example?*, CPB Discussion Paper, The Hague.
- Markusen, J.R., 2002, *Multinational firms and the theory of international trade*, MIT Press, Cambridge MA.
- Nicoletti, G., S. Scarpetta, and O. Boylaud, 2000, *Summary indicators of product market regulation with an extension to employment protection legislation*, OECD Economic Department Working paper no. 226, Paris.
- Nicoletti, G., 2001, *Regulation in Services: OECD Patterns and Economic Implications*, OECD Economic Department Working paper no. 287, Paris.
- OECD, 2003, *OECD Statistics on International Trade in Services; Partner Country Data and Summary Analysis*, Paris.

O'Mahony, M. en B. van Ark, 2003, *EU productivity and competitiveness: an industry perspective*, European Commission, Brussels.

Porter, M.E., 1990, *The competitive advantage of nations*, The MacMillan Press, London.

Smarzynska Javorcik, B., 2004, Does foreign direct investment increase the productivity of domestic firms? In search of spillovers through backward linkages, *American Economic Review*, 94 (3), June.