David, Thomas; Mach, André

Working Paper

Institutions and economic growth: The successful experience of Switzerland (1870 - 1950)

WIDER Research Paper, No. 2006/101

Provided in Cooperation with:
United Nations University (UNU), World Institute for Development Economics Research (WIDER)

Suggested Citation: David, Thomas; Mach, André (2006) : Institutions and economic growth: The successful experience of Switzerland (1870 - 1950), WIDER Research Paper, No. 2006/101, ISBN 9291908851, The United Nations University World Institute for Development Economics Research (UNU-WIDER), Helsinki

Research Paper No. 2006/101

Institutions and Economic Growth

The Successful Experience of Switzerland (1870-1950)

Thomas David[1] and André Mach[2]

September 2006

Abstract

This research paper discusses the role of institutions in the rapid growth and successful international integration of Switzerland during the late nineteenth and early twentieth century. In analysing the emergence and consolidation of the institutions whose existence was crucial, the paper looks both at the political institutions that managed conflicts and promoted cooperation between private and public actors and the economic institutions that, on the one hand, compensated the groups that fell behind in the developmental process (e.g., agricultural subsidies, high tolerance for domestic cartels, tariffs for some industries, institutions for labour representation) and, on the other hand, enhanced productivity. In addition, the absence of some institutions such as a patent law and an independent central bank was also crucial in the Swiss case, even though these two institutions are regarded as pre-requisites of development by today's economic orthodoxy. The paper concludes by drawing lessons for today's developing countries.

Keywords: economic growth, institutions, Switzerland, small countries

JEL classification: N13, N23, N43

[1] Assistant Professor; Thomas.David@unil.ch [2] Senior Lecturer; Andre.Mach@unil.ch, Both at the Institute of Political and International Studies, University of Lausanne, 1015 Dorigny, Switzerland.

This study has been prepared within the UNU-WIDER project on Institutions for Economic Development: Theory, History and Contemporary Experiences, directed by Ha-Joon Chang.

UNU-WIDER gratefully acknowledges the financial contributions to the research programme by the governments of Denmark (Royal Ministry of Foreign Affairs), Finland (Ministry for Foreign Affairs), Norway (Royal Ministry of Foreign Affairs), Sweden (Swedish International Development Cooperation Agency – Sida) and the United Kingdom (Department for International Development).

ISSN 1810-2611 ISBN 92-9190-885-1 (internet version)

Acknowledgements

We would like to thank the participants of the conference 'Institutions and Economic Development – Theory, History, and Contemporary Experiences' held in Helsinki (18-19 April 2005) for their helpful comments, in particular Ha-Joon Chang, Patrick O'Brien and Eric Rauchway for their written reports. Elisabeth Spilman, Béatrice Veyrassat, Tobias Straumann and Matthieu Leimgruber also made very interesting comments.

UNU World Institute for Development Economics Research (UNU-WIDER)
Katajanokanlaituri 6 B, 00160 Helsinki, Finland

Camera-ready typescript prepared by Adam Swallow at UNU-WIDER

Despite the absence of natural resources and no sea access, between 1870 and 1940 Switzerland became one of the wealthiest countries in the world. For most scholars, this ‘Swiss success story’ resulted from a combination of a privileged position at the heart of Europe, a neutrality status that preserved the country from the world wars, and successful integration in the international economy, combined with liberal economic policies. Even if it has largely been classified as a stereotypical example of a ‘liberal success’, the high performance of the Swiss economy did not solely rely on these precepts. On the contrary, notwithstanding its overall liberal trade policy, the Swiss economy also developed core institutions that largely departed from neo-classical recipes.

In this paper, we focus on the impact of institutions in the economic growth of Switzerland. Few scholars have taken into account the role of political and economic institutions in analyzing the Swiss growth experience; they have only integrated this dimension when dealing with the impact of political institutions, in particular the political freedom and stability of the Swiss democracy, on economic development.

We can distinguish two categories of political institutions that were important in the economic development of Switzerland: first, the ‘institutions of conflict management’ among economic and political elites that promoted consensual problem solving among them; second, partly linked to these institutions, close public–private partnerships also played a crucial role in the promotion of growth enhancing economic institutions. These political institutions contributed decisively to the adoption of two types of economic institutions. First, what we called ‘institutions of domestic compensation’ – that compensated the social groups that fell behind in the developmental process (e.g., agricultural subsidies, high tolerance for domestic cartels, tariffs for some industries, institutions for labour disputes resolution).

Second, the political institutions also determined the adoption of growth enhancing institutions, such as patent law and central banking, which, according to the IMF or the World Bank, favor growth by establishing an incentive structure that reduces uncertainty and promotes efficiency. However, the Swiss historical experience demonstrates that these ‘good institutions’, which are generally considered as important for economic growth, did not play a central role in the first phase of the ‘Swiss success story’ (see Chang 2002 for other historical experiences). Until 1907, these two types of institutions did not (or barely) exist in Switzerland; and despite their absence, the Swiss economy nonetheless witnessed a very fast growth during the preceding decades.

Our chapter has four parts. In the first section, we present a model of the links between institutions and economic growth in small European countries. In subsequent sections, we examine the Swiss case. In the second part, we briefly present the ‘Swiss success story’, the fast economic growth of this country between 1870 and 1950. In the third part, we explore the importance of political institutions in Switzerland during this period. Finally, we analyze the impact of economic institutions on Swiss growth.

1 Institutions and economic growth in small European countries

Growth-stimulating political and economic institutions were not specific to Switzerland. Other small European countries shared similar institutional characteristics. Menzel (1988) published an important book on the successful industrialization of four small countries (Switzerland, Denmark, Sweden and Canada). The industrialization process was first and foremost based on the following factors: a mix of technology transfer and endogenous invention; trade policies that coupled greater world economic integration through free trade with selective protectionist measures for some domestic sectors; a niche strategy based first on low wages, then on a very flexible marketing strategy oriented towards the quality of export goods; a policy of liberalization of trade and policy associated with growing state intervention (see also Menzel 1992).

As a second step, these countries were able to link the export sectors with the whole economy and to avoid a too strong concentration of wealth. This transition was made possible by economic, social and political preconditions. Economic preconditions included among others a relatively equal distribution of income in the export sectors and an intervening state (selective protectionist measures, nationalization of natural resources) in order to diminish foreign competition but also to support import substitution. An equal distribution in landownership, an homogenous social structure, a generally high level of education were essential social preconditions for the spread and maintenance of flexibility and readiness to innovate. Finally, Menzel (1992: 80) emphasized the political preconditions, in particular democratic institutions 'in which forces favoring development can articulate themselves and patterns have to be established which make conflict resolution in an institutionalised manner possible'. These political institutions gave way to a far reaching participation of the whole population (bourgeoisie, middle class, farmers, workers) to wealth distribution and allowed them to gain sufficient political influence to limit the resistance of the old elites.

Following Menzel (1988) and Katzenstein (1985), who both insist on the importance of political institutions in the economic development of small European countries, we argue that small countries present a particular framework for the interaction of institutions and economic growth (see Figure 1). First, the small size of their domestic markets provide an explanation for the early economic openness of these countries. On the eve of the First World War, Belgium, the Netherlands and Switzerland were the developed countries with the highest export per capita and with very high stock of foreign direct investment per capita (David 2003). However, none of these countries simply developed by opening itself up to foreign trade and investment. On the contrary, export dependence and the general liberal orientation of their trade policy was 'embedded' in domestic institutions that were far from liberal, but favourable for economic growth.

In addition to a similar structural position in relation to international markets, small European countries also shared common political institutions; particularly ones that dealt with conflict management and public-private cooperation (see Figure 1). The vulnerability of these countries to changes in the international environment favored the establishment of peaceful conflict-resolution institutions that would invite the participation of the major political and economic representatives of the various strata of society. Consensual political systems (based on a proportional electoral system and coalitions governments) and democratic corporatist institutions (where the major employers associations, trade unions and public officials negotiate economic and social policies) were particularly frequent in small European countries (Katzenstein 1985). In addition, these institutions of conflict management were often completed or enlarged through the consolidation of public-private cooperative institutions designed to promote efficient social and economic policies, where the interest of the national economy overrode the interests of one special social category or interests groups.

These political institutions were, in turn, decisive in the adoption of some specific economic institutions in small countries.[1] Indeed, various elements of domestic compensation and 'selective protectionism' complemented the globally liberal orientation of their trade policies. In the words of Menzel (1988), their strategy towards international markets was 'associative-dissociative': associative because of their dependence on international markets for exports and imports, and dissociative because these countries also introduced different measures to reduce the pressures of world markets on specific economic sectors or actors, such measures as import-substitution policies, state intervention or other forms of protectionism and public subsidies for some economic sectors (agriculture or industries producing for the domestic market, see Katzenstein 1985, Schröter 1999).

This argument has often been advanced to explain the 'dualist structure' of small European economies, having on the one hand, export-oriented sectors that were very competitive on international markets and, on the other hand, sectors producing mainly for the domestic market and largely sheltered from international competitive pressures. However, these forms of 'selective protectionism' also existed in export-oriented sectors and their larger companies through the establishment of specific regulations concerning company law and financial markets. These regulations, such as complex voting rights structures or 'pyramidal' forms of control, allowed small European economies to maintain control over their large companies and to avoid the risk of foreign takeovers (see David and Mach 2004).

Besides these institutions of domestic compensation, the political institutions also favoured the adoption of economic institutions that enhanced productivity and favored growth, such as strong protection of property rights, vocational training system, and the presence of stable (financial) markets, which influenced the structure of economic incentives in society.

These political and economic institutions were beneficial to economic growth in several ways. First, the political institutions favored the establishment of peaceful conflict-resolutions mechanisms, in other words, of a consensual political order (on this issue, see North et al. 2000). By protecting the 'losers' from international recessions or shocks (farmers, workers, etc.) through domestic compensation, they contributed to political stability, thereby creating an investment- and growth-friendly environment. Second, these distributive policies also promoted a rather egalitarian wealth distribution, which stimulated the economic development of these countries (Alesina and Rodrik 1994). Third, by preventing social fragmentation, these institutions created structures and opportunities for cooperative problem-solving and increased society's potential for productive investment, innovation and human resource development (Bardhan 2000). Finally, they influenced the structure of economic incentives in society and provided a structure for everyday transactions that reduced uncertainty and allowed groups and individuals to enlarge the set of possible fruitful exchanges (North 1991).

---

[1] For a distinction between economic and political institutions, see Acemoglu et al. (2004).

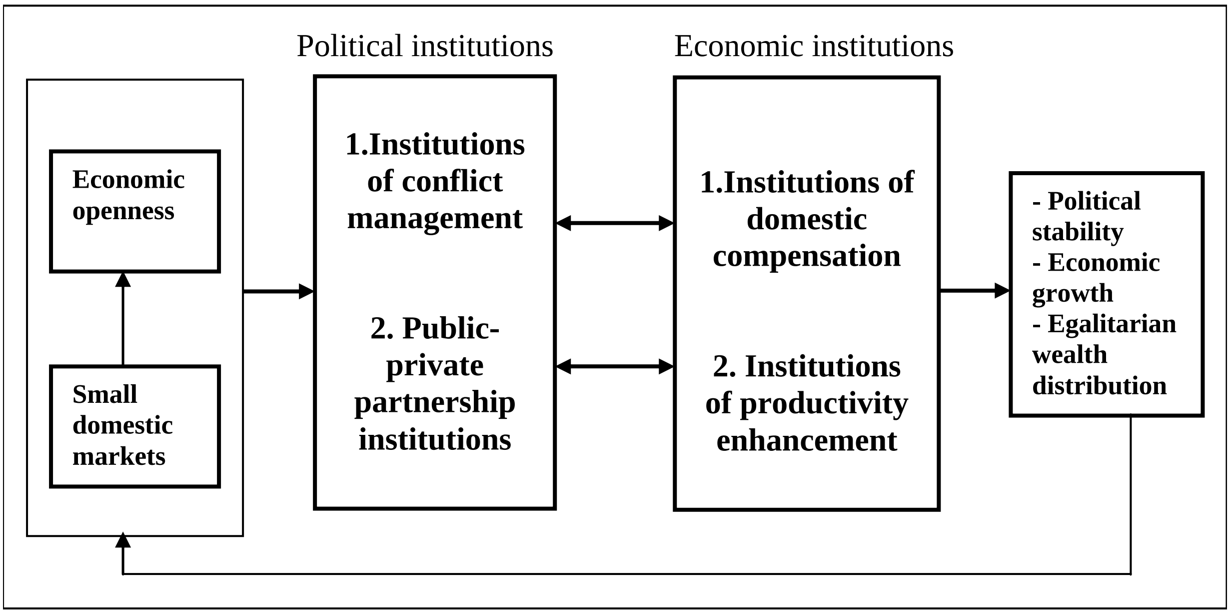

Figure 1 Institutions and economic growth in small European countries: a simple model

In small countries, the national elites learned to adjust to the pressures of their international environment on which they had no influence. This fact is an important reason why national institutions were rather flexible. Katzenstein (1985) thus emphasized the capacity of small European countries for 'flexible adjustment' to the fluctuations of international markets. This institutional flexibility is important because 'the most important elements of institutional structures are those that ensure an ability to adapt to different conditions and to adjust to new circumstances as some necessary, rather than those that entail the retention and maintenance of any set of policies. The capacity for adaptation, based in part on the population's education and their political liberties, may ultimately be more significant for economic growth than the continuation of any particular set of beliefs, rules, or behavior.' (Engerman and Sokoloff 2003: 13).

2 The Swiss success story (1870-1950): general characteristics

Before turning our attention to the emergence, functioning and consequences of institutions, we will first present some general facts and evidence on the growth path followed by the Swiss economy between 1870 and 1950.

During this period, Switzerland exhibited the highest growth rate of all European countries. Table 2 reports estimates of growth rates and income levels of real GDP per capita for Western Europe in the period 1870-1950. It shows that in terms of income per head Switzerland progressively overtook all the other European countries between 1870 and 1950.

Table 2 Rates of growth and levels of real GDP per capita, 1870-1950

	Rates of growth (% per year)			Levels of GDP (UK=100)		
	1870-1913	1913-50	1870-1950	1870	1913	1950
Belgium	1.1	0.7	0,9	84.4	85.8	78.7
Denmark	1.6	1.6	1.6	62.8	79.5	100.1
Finland	1.4	1.9	1.7	35.7	42.9	61.3
France	1.5	1.1	1.3	58.8	70.8	76.0
Germany	1.6	0.2	0.9	57.6	74.1	55.9
Italy	1.3	0.8	1.1	47.0	52.1	50.5
Netherlands	0.9	1.1	1.0	86.4	82.3	86.4
Norway	1.3	2.1	1.7	44.9	50.8	78.7
Sweden	1.5	2.1	1.8	52.1	62.9	97.1
Switzerland	1.7	2.1	1.8	65.9	86.7	130.6
United Kingdom	1.0	0.9	1.0	100.0	100.0	100.0

Source: Maddison (2003).

During the first period (1870-1913), Switzerland went through the fastest growth of the developed countries (Table 2). This growth is even more striking when the Swiss performance is compared to the United Kingdom and Belgium, two other countries that became industrialized at an early stage. In fact, Switzerland had a rate of growth comparable to the late industrializers (Germany or Sweden). It had a strong position in the sectors of the First Industrial Revolution (textile, watch making), but also in the sectors, which emerged at the end of the nineteenth century (chemical, machine and electrical industries) (Siegenthaler 1985).

For the period 1870-1913, Swiss economic growth benefited from two other factors. The first is linked to the use of electricity. Switzerland was a pioneer in the development of the hydro-electrical industry and became the second largest producer of electricity per capita after Norway in 1914. The replacement of other forms of energy with electricity led companies to increase the number of motors and thus their motive power (Paquier 1998).

Second, during the three decades preceding the First World War, the financial sector played an important role in Swiss industrial growth. By providing more or less long-term operating credits, by facilitating investment operations on capital markets and by creating financial companies, banks backed the activities and the growth of certain industrial branches, in particular the electrical industry. Big banks also profited from the industrial development during this period (Mazbouri 2005).

Profound structural changes in the industrial sector marked the second period (1914-50). The textile industry, which until 1870 had played a leading role in the industrialization process of Switzerland and which had been able to maintain its dominant position until about 1918, started to decline rapidly. At the same time the growth of the metal and machine industry, which had begun during the previous period, continued, turning it into the leading industry during the first half of the twentieth century. The success of this sector can be explained partly by its capacity to integrate foreign technologies and to adapt them to the Swiss particularities (predominance of hydraulic resources, see Paquier 1998). Furthermore, Swiss companies were able to benefit from the backing of financial companies created between 1890 and 1913 by German and Swiss banks in order to respond to the long-term investment needs generated by the enormous infrastructure expenditure (mainly electrification of lighting and transport, see Hertner 1987). Lastly, the public authorities played a non-negligible role in this growth. Indeed, from the 1890s onwards, the municipal and cantonal authorities controlled the production and distribution of gas and electricity. These authorities would systematically give preference to Swiss companies.

From 1910 to 1950, the service sector represented also an important pillar for the Swiss growth, contributing to almost 60 per cent of the growth of Swiss GDP (David and Ritzmann-Blickenstorfer 2002: table 9). This element is closely linked to Switzerland's growing eminence as a financial center in the international arena. The First World War and the 1920s marked Swiss finance's emergence as a leading actor on the world stage. A comparison illustrates this evolution: whereas before the First World War, the assets of the seven major Swiss banks accounted for only 26 per cent of those of German banks, the proportion doubled in 1928; the cumulated assets of the eight major Swiss banks amounted to 52 per cent of that of the five largest German banks.

The Swiss banking center had three major trump cards. First of all, the Swiss franc's stability played a crucial role at a time characterized by the marked instability of the international financial order. Second, Swiss banks benefited from political stability and neutrality; circumstances that favoured the inflow of foreign capital. Lastly, capital was attracted by rather non-constraining circumstances, such as a tax system in favour of the holders of capital and bank secrecy, which was codified into a banking law in 1934 (Perrenoud et al. 2002; Guex 2002).

Switzerland clearly benefited from its neutrality during the two world wars. Research concerning the 'Swiss success story' has also stressed the significance of external markets; some have insisted on the leading role of export industries, others (less numerous) on the importance of the sectors linked to the domestic markets (agriculture, handicrafts; see David 2003). However, very few scholars have taken into consideration the role of institutions in supporting growth. The next part will try to fill this gap.

3 Emergence and consolidation of political institutions (1870-1950)

Some economists have already underlined the central importance of political stability in the economic success of the Swiss economy (Knöpfel 1988; Brunetti 1992). These studies have especially highlighted the decisive role of the referendum in promoting political and social stability in this country, which in turn created an environment favourable to investment and growth. These studies have, however, only broached the subject superficially without exploring in any thorough or detailed manner the link between political institutions and economic growth. We will first present the general historical context of the second half of the nineteenth century, which was a decisive period in terms of institutional innovation and political integration, and then analyze the creation and consolidation of these political institutions.

The second half of the nineteenth century was a crucial period in the establishment of stable political institutions that later played a central role in the growth path followed by the Swiss economy. The creation of the Swiss Confederation in 1848 by the Protestant radical-democratic movement against the opposition of the Catholic cantons was combined with the maintenance of a federalist structure with large power in the hands of the cantons. The strong federalist structure of the new Confederation was a concession for the Catholic cantons that had lost the Sonderbund war against the Protestant cantons in 1847. The maintenance of an important power structure at the cantonal level largely allowed the peaceful cohabitation of the Protestant elites, organized in the radical democratic movement, and the Catholics organized in the Christian-Democratic Party.

After two decades of rapid growth until the mid-1870s, the long depression also hit Switzerland during the last third of the century. It was during this period that some decisive political institutions were established. Following the early democratization of the country in 1848, the total reform of the Constitution in 1874 enlarged the scope of Swiss democracy with the introduction of the most important direct democratic instrument: the facultative referendum, which allowed voters to challenge any act passed by Parliament if they succeed to gather 50,000 signatures. According to several authors, the referendum was the key institution behind the development of a consensus-based political system (see Neidhart 1970; Knöpfel 1988; Brunetti 1992). The government, dominated by the Radical-Democratic Party, learned to share its power with the opposition in order to prevent its bills from being challenged through the referendum. The government introduced an inclusive policy-making strategy by allowing the relevant actors, especially the major economic peak associations, to co-draft legislation in what was now called the pre-parliamentary phase.

While the Radical Democratic Party (founder of the Confederation) was by far the dominant political force, it progressively integrated all the major economic and political actors in order to reduce the potential threat of the referendum: the major peak economic associations at the end of the nineteenth century (the trade unions only later during the 1920s and 1930s) and the other major political parties from the last decade of the nineteenth up to the 1950s.[2]

In his analysis of the impact of Swiss political institutions on economic growth, Brunetti (1992: 108ff.) advanced the following causal argument: by favouring the integration of all major political actors in the decision-making process, the referendum facilitated political power sharing and prevented brutal political changes. Power sharing induced by the referendum at the federal level (in addition to the federalist structure of the state) reinforced the strong pro-status-quo bias and the low capacity for rapid change of the Swiss political system. This slowness had however an important advantage: it

2 In 1891, the Christian-Democratic Party joined the government, the Swiss people’s Party in 1929 and finally the Social-Democratic Party in 1943. This led to the formation of the so-called ‘magic formula’ of the Swiss government coalition in 1959, composed of the four most important parties.

reinforced the predictability and legal security of the country, promoting an environment favourable to investment and thus growth during the first half of the twentieth century.

Besides this general impact of the referendum (political stability, predictability and reduction of uncertainty), other institutions, related to the existence of the referendum, had a strong positive impact on economic growth. We can distinguish two sets of political institutions that were decisive in the strong growth of the Swiss economy. First, institutions of conflict resolution were very important in supporting social and political stability of the Swiss economy. Second, the weakness of the central state and the early organization of encompassing peak level economic associations promoted the institutionalization of efficient public–private partnerships providing different types of public goods at the federal and cantonal levels.

3.1 Conflict resolution institutions and social peace

The early political integration of all the major economic and political forces in the decision-making process helps to understand the political and social stability that largely prevailed during the first half of the twentieth century. First, the 'pre-parliamentary institutions' of inclusive policy-making provided strong incentives for peaceful conflict resolution at the political level. In order to prevent the risk of a rejection in a popular referendum, the dominant political actors could not ignore the position of any important economic or political actor. These institutions were decisive for cooperation among the economic and political elites of all the major social groups (business interests, farmers representatives and trade unions),[3] and it led to the adoption of public policies and regulations aimed at satisfying all the major actors involved in policy decision-making.

Second, at the turn of the century, we could see the progressive formation of a 'bourgeois bloc', comprising all the major economic associations[4] and the two major political parties (the Radical Democratic and Christian Democratic parties), which learned to cooperate in order to counteract the pressures from the rising labor movement (Humair 2004). The institutions of pre-parliamentary negotiations were largely limited to the major peak economic associations, while the trade unions and the political left remained largely excluded from this new political configuration emerging at the end of the nineteenth century. However, the early democratization of the Swiss political system and the subsidization of the Swiss federation of trade unions (USS), beginning at the time of its creation in 1880, helped to weaken the polarization at the political and economic level. Moreover, the gravity of social conflicts was reduced by the absence of large urban and industrial concentrations or large landownership (Jost 2001). Even though numerous labour disputes took place during the beginning of the twentieth century, reaching a peak with the general strike of 1918, the political left and the trade

---

3 While Katzenstein (1985) mainly focuses his analysis on the 1930s because of the creation of democratic corporatist institutions in small European countries, the cooperation between economic and political actors was already institutionalized in Switzerland during the end of the nineteenth century.

4 The Swiss Federation of Commerce and Industry, the Swiss Association of Small Business (USAM), representing the interests of artisans and crafts, and the Swiss Farmers' Union (USP).

unions were progressively integrated in the political decision-making process during the 1920s and 1930s.

The importance of consensus in Switzerland should not obscure two important facts (Jost 2001). First, this country went through important conflicts. The creation of the Swiss Confederation was the result of a civil war. In a comparative perspective, labour disputes and strikes were in Switzerland as numerous as in other European countries during the decades preceding the First World War. The formation of a ‘bourgeois bloc’ at the end of the nineteenth century was dictated as much by the political institutions of conflict resolution as by the will to fight the rise of the labour movement.

Second, this consensus was often dominated by right-wing political parties and by peak business associations. Katzenstein (1985) defined Switzerland as a liberal variant of democratic corporatism (as opposed to the social variant), characterized by a strong and centralized business community and a relatively decentralized and weak labour movement (see also Mach 2005).[5]

3.2 Public–private partnership institutions: weak central state and powerful encompassing associations

Partly linked to the institutions designed to facilitate conflict resolution, the public–private partnership institutions were not directed toward conflict management but toward the coordination of public and private actors in the resolution of social and economic problems (Hotz 1979). Even though pre-parliamentary institutions, composed of representatives of economic associations and civil servants, already represented public-private institutions, their function was very different. Whereas the former were mainly designed to produce widely supported political decisions, the function of public-private partnership institutions was mainly to produce collective goods, designed to provide services for the whole society.

It is important to stress the central role of the major peak economic associations in Switzerland, not only in the political decision-making process (as shown above), but also in the proper functioning of the economy. All the peak economic associations were created very early, and they were all subsidized by the federal government from 1870 onwards in an effort at achieving public duties, such as statistics gathering, vocational training, technical norms, or the self-discipline of the sector (Lehmbruch 1991; Mach 2005). It was easier for the government to financially support these encompassing associations instead of hiring new civil servants or of enlarging the bureaucracy of the central state. But, it is necessary to underline the fact that the government imposed the establishment of one peak association per major social group (workers, industry, farmers and artisan sector), which had to be representative of its members. This favoured the creation of encompassing associations (by contrast to specialized interests, see Olson 1982), which were responsible for a large proportion of the whole population and the economy. For example, they were very often obliged to self-discipline

5 Moreover, this consensus did not include certain social groups. Women had to wait until 1971 to get universal suffrage at the federal level, and foreigners, who have represented close to 10-20 per cent of the Swiss population throughout the course of the twentieth century, have also had very restricted political and economic rights.

themselves and create self-regulating rules that applied to all their members.[6] In addition, the importance of private regulation left ample room for manoeuvre and allowed for the flexible adoption of economic and social rules.

The representatives of all these encompassing peak associations were absolutely decisive in the development and implementation of all important social and economic policies. This meant that economic associations and the state administration established very close ties and worked together on all economic and social issues. This facilitated the buildup of the trust between political and economic actors and the diffusion of information among them.

4 Economic institutions: domestic compensation and growth supporting institutions

The creation and consolidation of the above-mentioned political institutions were the result of both international factors, related to the ‘perceived vulnerability’ toward their international environment (dependence on foreign markets; political and military threat of powerful surrounding states) by economic and political elites, and domestic institutions, such as the referendum and the fragmentation of society. As a consequence, they promoted policies that encouraged social cohesion and stability, but also economic institutions that were particularly favourable to economic growth. We can distinguish between two distinct sets of economic institutions. First, the institutions of domestic compensation provided the ‘losers’ of economic openness with protection, which strengthened political stability. Second, economic institutions fostered exchange by lowering transaction costs and structured economic incentives.

4.1 Institutions of domestic compensation

The political institutions favoured the adoption of ‘domestic compensation’ policies that were very important during the long economic depression of the late nineteenth century. These ‘domestic compensations’ were adopted in order to protect some sectors (workers, farmers and industrialists) from global competition and to stabilize the domestic economy: agricultural subsidies and protectionist barriers against imports, creation of public cantonal banks, the regional consolidation of the railways network, and the formation of the first cartels. Without going into a detailed analysis of each economic institution, we can provide some general comments on these economic institutions.

Trade barriers and agricultural subsidies were introduced in response to the economic depression of the late nineteenth century during the course of the numerous negotiations on bilateral trade agreements between Switzerland and its major commercial partners. From a very liberal stance, Switzerland moved to a much more protectionist country,

---

6 Lehner (1983) tried to explain why the Swiss case didn’t fit Olson’s theory on the rise and decline of nations. His argument was different from the one developed here. His major argument was to stress the role of the openness of the Swiss decision-making process, which reduces the power of specialized interests groups and prevents the adoption of rent-seeking institutions (for a critic see Mach 2005).

especially with regards to its agriculture, but also some industrial sectors (Humair 2004).

The early organization of economic interests went hand in hand with the formation of the first cartels, which were created during the world depression of the last decades of the nineteenth century. During the beginning of the twentieth century, cartels were even more tolerated and consolidated because of some decisions of the Swiss Federal Court. The timing for the creation of cartels was particularly important during economic crises and wars.

These measures of domestic compensation were the result of the inclusion of different social groups in the decision-making processes, both at the federal and the cantonal level. They transformed the Swiss political economy in a fundamental way. Although still open to goods and international capital, it ceased to be liberal in a strict sense. It reinforced the dualist structure of the Swiss economy which now featured on the one hand sheltered domestic sectors (agriculture, construction and more generally sectors linked to local markets) and on the other hand competitive sectors oriented toward international markets (textiles, mechanical engineering, watches, chemicals, banks and insurance companies).

Selective protectionist measures were reinforced during the first half of the twentieth century, particularly during the world wars and during the economic crisis of the 1930s. For example, the reform of company law allowed Swiss companies to issue different categories of share in order to protect them against the threat of foreign takeovers. Thus, selective protectionism not only concerned the domestic sectors of the economy, but also the sectors active on international markets. After the Second World War, the adoption of the new economic articles of the Constitution included the recognition of the legal character of cartels.

In addition to these policies of ‘selective protectionism’, we can also point to the first labour law (*Fabrikengesetz*) adopted as early as 1877 to protect workers, because of the pressure from the left wing of the Radical Democratic Party. This law was among the most advanced labour legislation of the time despite the relative weakness of the trade unions. The mechanisms of conflict resolution at the political level presented above also spread to the economic sphere, especially to industrial relations between trade unions and employers associations. In 1937, the very important ‘labour peace’ agreements in the two major industrial branches (machine and watch-making industry) were concluded. They contributed decisively to the pacification of industrial relations and to the consolidation of social partnership institutions.

4.2 Growth supporting economic institutions

We now focus our analysis on economic institutions that, according to the IMF and the World Bank, support growth. We selected two case-studies: patent law and central banking. These institutions resulted from conflict management among elites and intensive public-private cooperation, and are therefore particularly illustrative.

The creation of a central bank illustrates the influence of the main Swiss political institutions. In 1897, a referendum was launched against the proposition of a national bank adopted by the parliament after several years of deliberation. This project was contested by a coalition of conservative federalists, and by the main peak economic association, who was opposed to a state central bank and militated for a mixed or private institution. This project was finally rejected in a popular vote in 1897. In reaction, the government created a pre-parliamentary commission in which numerous opponents were represented. This commission was finally able to reach a compromise so that in 1907, the Swiss National Bank finally opened its doors. It was, as required by the Swiss Federation of Commerce and Industry, a mixed institution, a joint-stock company with public and private shareholders, the majority of the shares being held by the cantons. The creation of a central bank illustrated the importance of conflict resolutions institutions (referendum, pre-parliamentary commissions) and the close interaction of the state and private interests (see Zimmermann 1987).

The foundation of this financial establishment, as well as other fundamental reforms at the institutional and organizational levels, such as the progressive cartelization of the Swiss banking sector and the creation of the Swiss Banker's Association in 1912 gave a new impulse to the emergence of the Swiss financial centre.

The introduction of a patent law was also made possible by cooperation among the economic elites and by the close interaction of the state and private interests. In 1882, the Swiss population rejected a constitutional reform, which would have allowed the government to legislate in the field of property rights. Six years later, after a new vote, the first patent law was enacted. It was 'the most incomplete and selective patent law ever enacted in modern times' (Schiff 1971: 93). It excluded from patentability all inventions in the chemical field, but also inventions of new procedures in any industry whatsoever. The limits of this law can be explained by the fact that it was the result of a compromise between industrial elites.

For some sectors, in particular the watch making industry, a patent law was considered a necessity to protect intellectual property rights and to encourage investments in new technology (Veyrassat 2001). Other industrial sectors were fiercely opposed to a patent law. The chemical industry played a leading role in this opposition (Tanner 1996). In the 1870s, the young Swiss chemical industry was in a difficult position, unable to compete with German firms with a big scale advantage. The Basle companies were confronted with two alternatives: either give up in the face of German competition or adopt a new strategy (Straumann 1997). The Swiss chemical industry followed the latter path. This new strategy, which explains the impressive growth of the Swiss chemical industry until the First World War, was based on two pillars: innovation and imitation/variation (Tanner 1996; Straumann 1997; Moser 2003). The Swiss chemical industry abandoned mass production in order to focus on products with high value added, especially medicines. This specialization was linked very closely to a rise in research and development activities within companies. This strategy of innovation was backed by a policy of imitation. The absence of regulation concerning patents for the Swiss chemical industry allowed the Basle firms to concentrate its resources on imitating the procedures developed abroad (particularly in Germany and France).

By excluding from patentability all invention in the chemical field, the patent law of 1888 was thus able to conciliate the antagonist interests of Swiss industrialists. It was only in 1907 that a patent law worth its name came into being, even if a number of exclusions from patentability still existed. This new law was introduced for several reasons. Germany placed a great amount of political and economic pressure on its successful Swiss chemical competitor. The German chemical industry claimed that the latter's success was largely due to imitation – some spoke of 'practices of robber barons'. The changing attitude of the large chemical firms was also responsible for the introduction of the 1907 patent law. Their development made them more and more dependent on innovations through their own activities of R&D and less on imitation, on learning by doing. In these conditions, a patent law became important for the Basle industry. In a few decades, the accusations of piracy were forgotten, and the Swiss chemical industry became known for the quality of its products (Tanner 1996).

Conclusions

The Swiss economy exhibited very good performance in terms of growth and economic development during most of the twentieth century. However, during the last two decades, especially during the 1990s, the average growth of the Swiss economy has been among the lowest of OECD countries. As argued above, political institutions were particularly decisive in the long-term growth of the Swiss economy between 1870 and 1950 by providing social stability, legal security and efficient coordination for economic actors. These characteristics led to the adoption of economic institutions that were far removed from the liberal orthodoxy adopted by the IMF and the World Bank during the 1980s and 1990s. The positive effects of these economic institutions have not profoundly changed during the last period, and political stability is still very high. However, since the beginning of the 1990s, several (neo-)liberal economists as well as business representatives, especially from the largest multinational companies, have been complaining about this weak growth and particularly pointed to the negative impact of political institutions (especially the facultative referendum, but also the federalism) on the growth of the Swiss economy (Borner et al. 1990). In a very 'Olsonian' perspective, these economists stress that the referendum is unilaterally favoring specialized interest groups opposed to change, the referendum being the privileged instrument of 'conservative' forces of both the left and the right opposed to any political and economic reforms. It has thus become an obstacle for the 'necessary' economic and social reforms in a period of globalization and fierce international competition.

Without going into an analysis of the recent slow growth period, which gave rise to a highly politicized debate,[7] this changing interpretation of the impact of institutions is interesting. It first stresses that the role of institutions in one country can change over time, and, second, lessons from one country should not be considered as universal. If we want to understand the influence of institutions, we should take into account the specific social and economic context of each nations, in which institutions operate.

Having mentioned this, we can nevertheless try to draw some lessons from the role of political and economic institutions for the Swiss growth between 1870 and 1950. First, by reinforcing political stability and by creating opportunities for cooperative problem-

7 These institutions might have contributed in some ways to slow the growth of the last decades; in particular, by overemphasizing stability and incremental changes, political institutions tend to prevent innovation and new initiatives, which can be detrimental to growth. However, other factors, such as very restrictive macroeconomic policies (especially the monetary policy since the breakdown of the Bretton Woods system, which led to a steady appreciation of the Swiss franc and represented an handicap for exports) and more stringent credit policy of the banking sector, have also contributed to the stagnation of the 1990s.

solving mechanisms among major economic and political actors, political institutions provided positive structure to adopt economic institutions that were favourable for growth.

Second, institutions of domestic compensation, besides their role in terms of political and social stability, also had an economic function. Domestic compensation and 'associative-dissociative' development strategy adopted by Switzerland helped the country to abandon an export-led growth path (dominated by the major industrial exports) to a more 'autocentric' economic development at the end of the nineteenth century and the first half of the twentieth century.

Third, the absence of economic institutions, such as patent law and central banking, generally considered as very important for economic growth by the IMF and the World Bank, was not detrimental to the rapid development of the Swiss economy during the second half of the nineteenth century. The Swiss historical experience showed that these 'good institutions', seen today as necessary for economic development, did not play a central role in the first phase of the 'Swiss success story'. However, they were replaced by other mechanisms that supported the economic development of the industrial and financial sectors.

References

Acemoglu, Daron et al. (2004). *Institutions as the Fundamental Cause of Long-Run Growth*. Documento CEDE.

Alesina, Alberto and Dani Rodrik (1994). Distributive Politics and Economic Growth. *Quarterly Journal of Economics* 109: 465-490.

Bardhan, Pranab (2000). The Nature of Institutional Impediments to Economic Development, in M. Olson and S. Kähkönen (eds) *A Not-so-Dismal Science. A Broader View of Economies and Societies*. Oxford: Oxford University Press, 245-67.

Borner, Silvio et al. (1990). *Schweiz AG. Vom Sonderfall zum Sanierungsfall?* Zurich: Verlag NZZ.

Brunetti, Aymo (1992). *Politisches System and Wirtschaftswachstum*. Chur: Rüegger.

Chang, Ha-Joon (2002). *Kicking Away the Ladder. Development Strategy in Historical Perspective.* London: Anthem Press.

David, Thomas (2003). Croissance économique et mondialisation: le cas de la Suisse (1870-1914), in Hans-Jörg Gilomen et al. (eds) *Globalisierung. Voraussetzungen, Chancen und Risiken aus historischer Sicht (1700-2000)*. Zurich: Chronos.

David, Thomas and André Mach (2004). The specificity of corporate governance in small states: institutionalisation and questioning of ownership restrictions in Switzerland and Sweden, in R. Aguilera and M. Federowicz (eds) *Corporate governance in a changing economic and political environment.* London: Palgrave, 220-46.

David, Thomas and Heiner Ritzmann-Blickenstorfer (2002). Gross Domestic Product in Switzerland, 1891-1950. A New Estimation. *Working Paper*, University of Lausanne.

Engerman, Stanley and Kenneth Sokoloff (2003). Institutional and Non-institutional Explanations of Economic Differences. *NBER Working Paper* 9989.

Guex, Sébastien (2002). La Banque nationale suisse 1907-1939: modèles, références, spécificités, in O. Feiertag and M. Margairaz (eds) *Les Banques centrales européennes 1900-1950*. Paris: Albin Michel.

Hertner, Peter (1987). Les sociétés financières suisses et le développement de l'industrie électrique jusqu'à la Première Guerre mondiale, in F. Cardot (ed.) *Un siècle d'électricité dans le monde*. Paris: PUF, 341-55.

Hotz, Beat (1979). *Politik zwischen Staat und Wirtschaft*. Diessenhofen: Ruegger.

Humair, Cédric (2004). *Développement économique et Etat central (1815-1914).* Bern: Lang.

Jost, Hans-Ulrich (2001). Critique historique du consensus helvétique. *Traverse* 3: 57-80.

Katzenstein, Peter (1985). *Small States in World Markets. Industrial Policy in Europe*. Ithaca: Cornell University Press.

Knöpfel, Carlo (1988). *Der Einfluss der politischen Stabilität auf die internationale Wettbewerbsfähigkeit der Schweiz*. Grüsch: Rüegger.

Lehmbruch, Gerhard (1991). The Organization of Society, Administrative Strategies and Policy Networks, in Roland Czada et al. (eds) *Political Choice, Institutions, Rules and the Limits of Rationality*. Francfort: Campus, 121-58.

Lehner, Franz (1983). Pressure Politics and Economic Growth: Olson's Theory and the Swiss Experience, in Denis Müller (ed.) *The Political Economy of Growth.* New Haven: Yale University Press, 203-14.

Mach, André (2005). *La Suisse entre internationalisation et changements politiques internes: législation sur les cartels et relations industrielles dans les années 1990*. Chur: Rüegger.

Maddison, Angus (2003). *The World Economy. Historical Statistics*. Paris: OCDE.

Mazbouri, Malik (2005). *L'émergence de la place financière Suisse, 1890-1913. Itinéraire d'un grand banquier*. Lausanne: Antipodes.

Menzel, Ulrich (1988). *Auswege aus der Abhängigkeit. Die entwicklungspolitische Aktualität Europas.* Francfort: Suhrkamp.

Menzel, Ulrich (1992). The Experience of Small European Countries with late Development. Lessons from History, in L. Mjoset (ed.) *Contributions to the Comparative Study of Development.* Oslo: Institute for Social Research, 44-95.

Moser, Petra (2003). How do Patent Laws Influence Innovation? Evidence From Nineteenth Century World Fairs. *NBER Working Paper* 9909.

Neidhart, Leonhard (1970). *Plebiszit und pluralitäre Demokratie.* Bern: Francke.

North, Douglass (1991). *Institutions, institutional change and economic performance,* Cambridge: Cambridge University Press.

North, Douglass et al. (2000). Order, Disorder, and Economic Change: Latin America vs. North America, in B. Bueno de Mesquita and R. Hilton (eds) *Governing for Prosperity*. New Haven: Yale University Press, 17-58.

Olson, Mancur (1982). *The Rise and Decline of Nations. Economic Growth, Stagflation and Social Rigidies*. Yale University Press.

Paquier, Serge (1998). *Histoire de l'électricité en Suisse. La dynamique d'un petit pays européen (1875-1939).* Genève: Passé Présent.

Perrenoud, Marc et al. (2002*). La place financière et les banques suisses à l'époque du national-socialisme. Les relations des grandes banques avec l'Allemagne (1931-1946).* Zurich: Chronos.

Schiff, Eric (1971). *Industrialization without National Patents. The Netherlands, 1869-1912 and Switzerland, 1850-1907*. Princeton: Princeton University Press.

Schröter, Harm (1999). Small European Nations: Cooperative Capitalism in the Twentieth Century, in A. Chandler et al. (eds) *Big Business and the Wealth of Nations*. Cambridge: Cambridge University Press, 176-204.

Siegenthaler, Hansjörg (1985). Die Schweiz, 1850-1914, in W. Fischer (ed.) *Handbuch der europäischen Wirtschafts- und Sozialgeschichte*. Stuttgart: Klett-Cotta, vol. 5, 443-73.

Straumann, Tobias (1997). Die Wissenschaft ist der goldene Leistern der Praxis. Das deutsche Modell und die Entstehung der Basler Chemie (1860-1920), In Thomas Busset et al. (eds) *Chemie in der Schweiz. Geschichte der Forschung und der Industrie*. Basel: Merian, 77-99.

Tanner, Jakob (1996). Property rights, Innovationsdynamik und Marktmacht, in A. Ernst and E. Wigger (ed.) *Die neue Schweiz? Eine Gesellschaft zwischen Integration und Polarisierung (1910-1930).* Zurich: Chronos, 273-303.

Veyrassat, Béatrice (2001). De la protection de l'inventeur à l'industrialisation de l'invention, in Hans-Jörg Gilomen et al. (eds) *Innovations. Incitations et résistances – des sources de l'innovation à ses effets.* Zurich: Chronos, 367-84.

Zimmermann, Rolf (1987). *Volksbank oder Aktionsbank?* Zurich: Chronos.