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The Agri-food Situation and Policies in Switzerland

Peter Jarrett,
Charlotte Moeser

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By Peter Jarrett and Charlotte Moeser

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ABSTRACT/RÉSUMÉ

The agri-food situation and policies in Switzerland

This paper examines the heavily supported Swiss food and agriculture sector. It reviews some of the key features and trends in the sector and reveals its low relative labour productivity in international comparison. It describes the existing policy regime, including its various forms of support and border protection, and the new law that will take effect in 2014 and goes on to make recommendations covering budgetary, environmental and trade aspects of Switzerland's policy regime.

JEL classification codes: Q10; Q15; Q16; Q17; Q18

Keywords: agriculture; food; farm; support; protection; subsidies; Switzerland

La situation et les politiques agro-alimentaires en Suisse

Ce papier examine le secteur agricole et alimentaire suisse bien subventionné. It passe en revue plusieurs des traits marquants and des tendances sectoriels et révèle la faiblesse de la productivité relative du travail bas en comparaison internationale. Il décrit les politiques actuelles, y compris les multiples formes de soutien et de protection frontalière et la nouvelle loi qui entrera en vigueur en 2014 et procède à des recommandations couvrant ses aspects budgétaires, environnementaux et commerciaux.

Classification JEL: Q10; Q15; Q16; Q17; Q18

Mots clefs: agriculture; alimentation; agricole; soutien; protection; subventions; Suisse

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The agri-food situation and policies in Switzerland

Peter Jarrett and Charlotte Moeser¹

A brief description of the sector

Switzerland's agricultural sector has recently called it "the Achilles heel" of the Swiss economy (WTO, 2013, p. 10). Its relative economic importance is low: in 2012 it produced around CHF 10 billion worth of product, but its gross value added was only about CHF 3.7 billion, less than 0.7% of GDP (Figure 1), down from 2.3% in 1990, as subsidies account for around two-thirds of factor income (compared to around 42% in the European Union). Agriculture's employment share was less than 4% (Figure 2), and it was responsible for 11% of Swiss greenhouse gas emissions. Agricultural employment has also been trending down over the past decade or so, from 204 000 in 2000 to 164 100 in 2011 (though 56% work part time, and officials (Lehmann and Lanz, 2012) argue that productivity is rising). Farming took up nearly a quarter of the country's surface area (excluding summer pastures) or about a million hectares in the mid-1990s when last measured. The sector is dominated by small family farms, which are mostly not globally competitive. Indeed, Switzerland is a net agro-food importer. Its level of self-sufficiency has remained relatively unchanged over the years at what seems a comparatively low share – around 63% in 2009. As elsewhere, Swiss agricultural policies aim at several objectives, such as ensuring security of food supply, conserving natural resources, diversifying land use and decentralising

^{1.} Peter Jarrett is Head of Division in the Country Studies Branch of the Economics Department (email: peter.jarrett@oecd.org). Charlotte Moeser was Economist on the Switzerland/Indonesia Desk at the time of her contribution and is now Economist on the United Kingdom/Netherlands desk. The authors would like to thank Patrizio Sicari for statistical assistance, Mee-Lan Frank for editing and Frank van Tongeren, Richard Dutu and various Swiss experts from FOAG and SECO for useful comments and corrections. The views expressed herein do not necessarily represent those of the OECD nor its Member countries.

^{2.} However, many more jobs are related to agriculture, most of it in upstream or downstream sectors (as many as one in ten).

^{3.} There were 57 617 Swiss farms in 2011, which are mostly small family enterprises; only about 40 600 are operated by full-time farmers, and nearly a third of family income comes from non-farm sources. The number of farms has been falling steadily at least since 1990 when it was well over 90 000. At the same time the average age of farmers has been rising, with a fairly sharp drop in the number of farmers less than 40 since 2000. More than half (55%) of Swiss farms are located in hilly or mountainous regions; the receive 64% of all direct payments (FOAG, 2013, p. 12). The mean utilised size is 18.3 hectares, and only about 100 have more than 100 hectares. But there has been some consolidation: the mean size has edge up from 17.9 in 2000. Nevertheless, by EU standards, this is fairly small: in the United Kingdom, Denmark, Germany and France it ranges from 54 to 84 hectares.

^{4.} Switzerland's share of agro-food imports in total imports was around 6.2% in 2011, while the share of agro--food exports in total exports was only some 3.75%. The share of agricultural products in total imports has trended down over time, but Switzerland is said to be the top importer per capita of farm and food products. The share of agricultural products in total exports has increased slightly. Exports are dominated by items with heavy nonfarm value added, such as beverages, chocolate, dairy products and canned fruit and vegetables.

^{5.} The self-sufficiency ratio was 95% for animal products but only 48% for plant products.

settlement. Since 1996, these policy objectives have been anchored in the basic principle of multi-functionality within the Swiss constitution.⁶

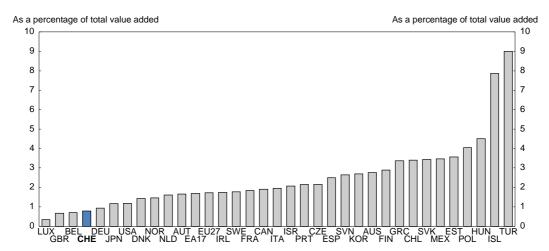


Figure 1. Switzerland's share of primary agriculture in GDP in OECD comparison, 20111

2010 for Australia, Iceland, Japan, Mexico and the United States; 2009 for Israel and 2008 for Canada.
 Source: OECD, National Accounts at a Glance 2013.

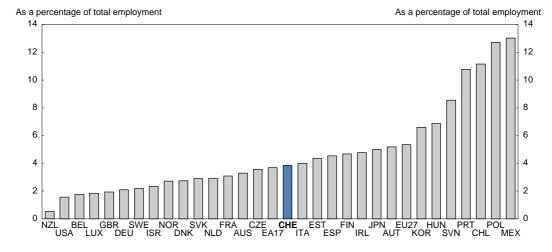


Figure 2. Switzerland's share of primary agriculture in total employment in OECD comparison, 2010¹

2009 for Mexico and New Zealand; 2008 for Australia, France and Switzerland.

Source: OECD, National Accounts database.

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^{6.} Article 104 of the 18 April 1999 constitution was adopted by 78% of Swiss voters on 9 June 1996. It specifically refers to the sector's multifunctional tasks. It requires the Confederation to ensure that agriculture contributes substantially with sustainable and market-oriented production to food security, resource conservation and upkeep of the rural landscape, decentralised settlement and utilisation of particularly environmentally friendly production methods.

Agricultural support is generous by international standards

Even though it has come down since reform began in1993, support for agriculture remains high in OECD comparison. Producer support still accounts for more than half of gross farm receipts (Figure 3), 57% in 2012 to be precise. This compares with around 18% producer support on average in the OECD and less than 4% for producers in Australia, Chile and New Zealand (OECD, 2013). On the other hand, agricultural support has been progressively delinked from production and subjected to stricter conditionality than in many other OECD countries. While direct payments to farmers are conditioned on good environmental practices via the required "proof of ecological performance" ("cross-compliance") and the provision of public goods, instruments to support the agricultural sector also still include untargeted and distorting measures such as: market price support, border protection, export subsidies and refunds, and input subsidies.

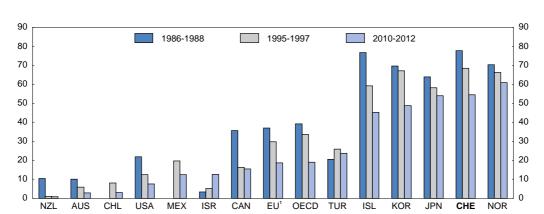


Figure 3. Producer Support Estimate (PSE) as a percentage of gross farm receipts in OECD comparison

EU15 for 1986-88 and 1995-97; EU27 for 2010-12.

Source: OECD, PSE/CSE database 2013.

• *Market price support*. Guaranteed prices of many agricultural products were eliminated by 1999. Yet, product-specific price support is still in place for many products, largely delivered by border protection and, to a smaller extent, market price support.

• *Direct payments*. There are two main categories: first, general direct payments (per hectare of farmland or per livestock unit), with less favoured areas getting preferential treatment.⁷ For example, farmers get an average of about CHF 50 000 per farm in direct payments for working on steeply sloped terrain (this cost CHF 114 million in 2011) and contributing to public goods such as food supply security (CHF 1 218 million). There are general direct payments per hectare and/or per livestock unit of about CHF 3 billion, as well as ecological direct payments and payments for animal welfare of about CHF 600 million. To apply for support, proof of ecological performance must be provided, showing that farms make balanced use of fertilisers and only limited use of pesticides, rotate crops frequently, and protect soil from erosion, and treat at least

^{7.} These payments are degressive in size, animal numbers, income and assets (they are phased out over the range of 40-130 hectares and 55-190 livestock units with a ceiling on assets of CHF 1 million). The maximum amount is CHF 70 000 per farm person (measured in standard labour units) per year.

7% of their farmland as ecological compensation areas (for example, extensive pasture set aside).8

• Border protection. The level of border protection is high: if converted to an ad valorem equivalent, tariffs averaged 31.9% in 2012, some 14 times the corresponding level for non-agricultural items (Table 1). In some cases they are extremely high (especially for animal and dairy products). Agro-food imports are also regulated by a complex system of tariff rate quotas (TRQs), where tariffs are also higher than average. High or prohibitive out-of-quota MFN tariffs in import-competing sectors contrast with tariff-free imports in a range of products such as cotton with little or no domestic production. Tariff rates remain at a very high level by international comparison, more than double average world levels in 2011 according to the World Bank.

Table 1. Swiss import tariffs, 2012

	Number of lines	Average tariff (%)	Range (%)	Coefficient of variation	Share of duty- free lines (%)
Total	8 299	9.2	0-1676	5.3	18.7
WTO non-agricultural products	6 165	2.3	0-71	1.7	18.8
WTO agricultural products	2 134	31.9	0-1676	3.1	18.3
of which:					
Animals and products thereof	173	125.5	0-1676	2.2	9.8
Dairy products	58	101.5	1-1295	1.8	0.0
Fruit, vegetables and plants	617	28.1	0-549	2.0	14.9
Coffee and tea	62	8.4	0-76	1.4	16.1
Cereals and preparations	426	20.8	0-265	1.3	10.3
Oils, seeds, fats, oil and their products	394	22.5	0-137	1.5	19.0
Sugars and confectionary	58	6.9	0-60	1.3	25.9
Beverages, spirits and tobacco	124	25.1	0-509	2.1	8.9
Cotton	6	0.0	0	0.0	100.0
Other agricultural products, NES	216	5.8	0.230	3.9	56.0

Source: WTO (2013, Table 3.3).

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^{8.} Ecological compensation areas protect and restore ecosystems close to their natural state. No artificial fertilisers and pesticides are allowed. Overall, they represent 12% of utilised agriculture area.

^{9.} All Swiss tariffs on agricultural products are specific, meaning their degree of protection varies with the exchange rate: the stronger the franc, the lower are import prices in franc terms and the higher is the *ad valorem* tariff equivalent. The figure for the 2012 average is therefore only indicative.

^{10.} The system takes nearly 300 pages to describe; it comprises 28 tariff quotas (with 58 sub-quotas, 80 bilateral preferential tariff quotas) except for those under the Generalised System of Preferences where all imports are admitted freely. A few years ago items within the quota represented 18% of total agricultural imports but provided 29% of all customs revenues, while those outside the quota were only 2% of all such imports but paid 11% of all duties (DFE, no date, p. 4). Some TRQs are auctioned, some are allocated on a first-come first-served basis, some are based on past imports and some are contingent on local purchases (the so-called *prise en charge* system; see Jörin and Lengwiler (2004). The WTO (2013) opposed any shift back for the meat and meat product sub-quotas from auctioning (which began in 2007 and yields about CHF 150 million for government coffers, about half the estimated profit associated with the TRQs (Hofer, 2009, p. 19) to the former *prise en charge* system judged to be more discriminatory, but the parliament decided to do so in part nevertheless.

- Export subsidies. While export subsidies on primary agricultural products were abolished at the end of 2009, a scheme is still in place to compensate exporting industries of processed agricultural goods for the high costs due to tariff protection of locally produced inputs (Schoggigesetz or loi chocolatière). This is done through tariff protection for locally processed agricultural products and export refunds for a certain share of the price premium between Swiss and foreign raw materials used in the production of processed agricultural goods for export. Indeed, downstream industries such as the food-processing sector producing internationally tradable goods benefit considerably from such export subsidies on processed agricultural products.
- *Input subsidies*. Producers have access to interest-free long-term investment credit provided by the federal government and administered by the cantons (with an average payback period of about 13 years), whose annual subsidy value is estimated to be worth CHF 47 million. As well, farmers benefit from area-based exemptions from some CHF 65 million per year in mineral oil tax

Reforms of agricultural policies are ongoing

Since the early to mid-1980s, following the Uruguay Round Agreement and several bilateral trade accords, Switzerland has gone through a comprehensive agricultural policy reform (summarised in Hofer, 2009), accompanied by a shift towards enhanced market orientation, i.e. away from market price support¹¹ towards direct payments (Table 2). Consequently, there has been a gradual reduction in the overall level of agricultural support. Producer support has fallen by around 20 percentage points of gross farm receipts since the turn of the century to some 56% today (Figure 3 above).¹²

Table 2. Market support and direct payments

CHF million

Measure	2007	2008	2009	2010	2011	Average 2014-17
Market support expenditure ¹	493.2	481.4	434.0	372.2	385.4	381.0
Dairy sector, of which:	366.0	349.7	316.7	291.9	295.3	296.0
Subsidy for milk processed into cheese	255.1	261.0	247.8	256.3	259.5	n.a.
Livestock sector	18.2	18.3	18.3	10.2	12.4	13.0
Arable sector, of which:	109.0	113.4	99.0	70.1	77.7	69.8
Crop premiums	46.3	47.7	69.6	65.9	68.8	n.a.
Direct payments	2 575.0	2 505.0	2 741.7	2 789.2	2 799.2	2 814.0

^{1.} Including export subsidies.

Source: Federal Office for Agriculture, Rapport Agricole, various issues.

At the same time, support has been shifted from market price intervention towards direct payments (Table 2). Price support for major agricultural products has been reduced. Farmers were compensated through higher direct payments for losses in their income; direct payments have increased in importance

^{11.} Market price support comprises all policy measures that raise the domestic price relative to the border price of the commodity concerned, including border measures (tariffs, tariff quotas and other import restrictions), administered prices and export subsidies.

^{12.} The largest share of producer support in value terms was directed in 2012 at pork, followed by beef and milk. OECD PSE database 1986-2012, "Producer and Consumer Support Estimates: Switzerland".

over recent years, accounting in 2011 for some 87% of all budgetary agricultural support, up from 83% in 2007. Despite these reform efforts, the prices paid to the farming sector were on average still 1.5 times world prices in 2009-11 (down from a peak of five times higher in 1988, in large part because world market prices improved) (Figure 4). This is mainly attributable to still high border protection. Although the amount of the most distorting forms of support has been significantly reduced, it still represents almost half the total (Figure 5).

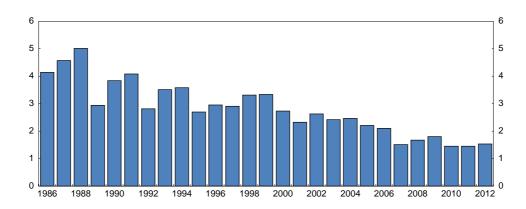


Figure 4. Switzerland's ratio of producer prices to border prices (NPC)

The Nominal Protection Coefficient (NPC) is an indicator of the protection for producers measuring the ratio of the average price
at the farm gate, including payments per tonne of current output, to the border price.

Source: OECD, Agricultural Policy Indicators database.

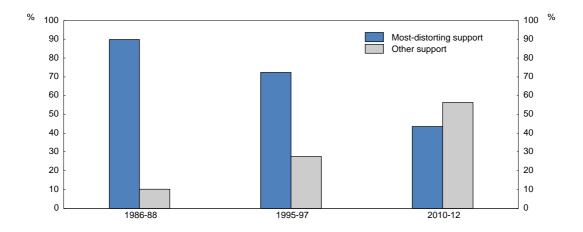


Figure 5. Switzerland's most distorting support¹ as a share of aggregate product support

Most-distorting support is defined as that which is based on output and variable input use without input constraints. In effect, it
is that which distorts the choice of outputs farmers make as well as the methods they use to produce them.

Source: OECD, Agricultural Policy Indicators database.

Further steps in the shift from market price support to direct payments are being implemented under Switzerland's current policy framework, *Agricultural Policy 2011*, which expires at the end of 2013. A few tariff reductions have been made – for example, there has been free trade in cheese with the EU since June 2007, and in recent years there has been a sizeable cut in bread cereal and wheat flour reference prices and a decline in feed grain import threshold prices – but tariffs remain high (see above). Also, greater

flexibility and transparency were introduced in the administration of the TRQ system governing imports of dairy products. Milk price controls and the milk quota system were abolished on 1 May 2009, but surpluses persist; the compulsory milk levy that replaced it has drawn some international criticism (WTO, 2013, p. 11). The reduction in overall support over the past 20 years has lowered prices for all products (almost 30% for producers), but cuts to dairy prices were the most significant: consumer prices for dairy products were cut by 16% on average, while producer prices fell by 40% (FOAG, 2012a). In addition, as mentioned above, all export subsidies to primary agricultural products were eliminated in 2010. Yet, some export subsidies for processed products remain, on butter for example. The case of cheese is different, since all milk processed into cheese is subsidised, not only for exported cheese.

But support remains costly for consumers and taxpayers

The implicit tax on consumption of food (CSE) is among the highest in the OECD (along with Japan, Korea and Norway); it amounts to USD 46 459 per farmer in Switzerland While support to the agricultural sector remains heavy, domestic consumer prices of most agricultural and food products continue to be very high. According to the Federal Economics Department (DFE, no date, p. 5) such prices are 28% higher than those in neighbouring countries, of which 18 percentage points are due to higher downstream value added (processing and trade margins), 8 points to higher prices paid to farmers, and only 2 points reflect the direct impact of tariff and non-tariff trade barriers. By 2008, however, despite this absolute price gap, the relative price of food in terms of the domestic prices of other goods and services was not especially high: most prices are higher in Switzerland. This is somewhat of a surprise, since there is clear evidence that relative prices of food are generally higher the more negative is the CSE (i.e. the more taxed food consumption is) (Figure 6).

Relative price levels on consumer expenditure on food (GDP=100), 2008 150 KOR 140 JPN 130 TUR 120 110 NOR **ISR** NZL 100 MEX CHF USA 0 90 **OECD** ISL **AUS** 80 70 60 -50 -40 -30 -20 -10 0 10 20 Consumer Support Estimate (CSE)1, 2008

Figure 6. Higher implicit transfers from consumers generally weigh on relative food prices

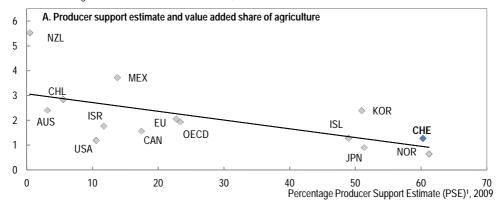
As a share of consumption expenditure on agricultural commodities, net of taxpayer transfers to consumers; CSE is the annual
monetary value of gross transfers from/to consumers of agricultural commodities, measured at the farm level, arising from policy
measures that support agriculture. When negative, transfers imply an implicit tax on consumption associated with agriculture
support policies.

Source: OECD, Purchasing Power Parities and Agricultural Policy Indicators databases.

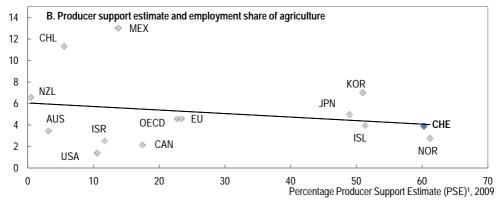
High levels of support also result in considerable costs for taxpayers. In 2011, total budgetary outlays amounted to CHF 3.6 billion, which is approximately 6% of total federal budgetary expenditures (or 0.6% of GDP) (BFS, 2011). Total support, as measured by the Total Support Estimate (TSE), amounted to just over 1% of GDP, 58% of which is paid for by taxpayers and 42% by consumers (OECD, 2013). In addition, countries with higher percentage Producer Support Estimates (PSEs) tend to have smaller shares of output and employment in agriculture (Figure 7, Panels A and B), but the former relation is stronger,

Figure 7. The relationship between policy measures to support producers and sectoral outcomes

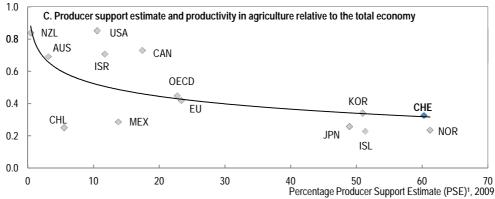
Value added in agriculture as a % of GDP at factor cost , 2009 or latest available



Employment in agriculture as a % of total employment, 2009 or latest available



Ratio of agriculture's shares in total value added to employment, 2009 or latest available



 PSE is the annual monetary value of gross transfers from consumers and taxpayers to agricultural producers, measured at the farm-gate level, arising from policy measures that support agriculture. Percentage PSEs are PSEs as a share of gross farm receipts

Source: OECD, STAN, National Accounts and Agricultural Policy Indicators databases.

arithmetically resulting in lower labour productivity as well (Panel C and Figure 8),¹³ even if the direction of causality cannot be ascertained. Nevertheless, it can be argued that Switzerland's heavy support sustains inefficient farming structures. Only about a fifth of Swiss farms in lowland areas are as efficient as the

^{13.} Unfortunately, no sectoral multi-factor productivity data exist for Switzerland.

average farm in neighbouring Baden-Württemberg (Germany), which has similar topographical conditions (FOAG, 2011). If all Swiss farms were as efficient as the currently top 25%, the gain could be more than 1% of GDP (OECD, 2012) if the freed-up labour achieved economy-wide average productivity.

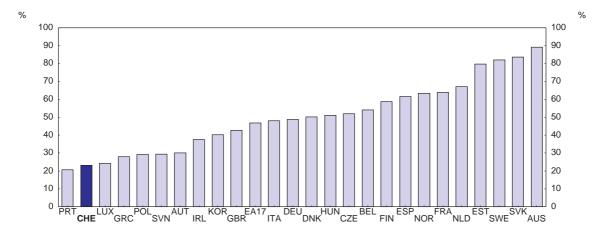


Figure 8. Relative labour productivity in the agricultural sector, 2010

Nominal value added per employee in agriculture relative to the total economy.
 Source: OECD.

Reforms need to continue

Although much progress has been made in the past 20 years to reduce the distortionary impact of agricultural support and lessen the negative environmental impact of agricultural production, the pace of reform has slowed down and barriers to structural change in agriculture remain important, especially as regards farm land. For example, even if they have been eased somewhat in the past, inheritance rules stipulate that an heir wishing to maintain a middle-size or large farming business is given preference over other heirs and that such an heir may compensate the others for their shares at values below market prices, thereby biasing land and capital-use decisions towards farming and locking in resources in the sector (OECD, 2007). This is especially damaging when the farm in question is otherwise non-viable. Price controls on agricultural land have similar effects. The authorities could go further in encouraging structural change by tying income support to individual incumbent farmers, rather than their businesses so expectations of future support do not bias heirs' decisions.

Switzerland has been in negotiations on further reductions of agricultural support and liberalisation of the sector under the framework of the Doha round and in accompanying bilateral talks with the European Union (EU). However, progress in the Doha round has come to a halt, and political support in Switzerland for a bilateral agreement with the EU has apparently vanished. Nevertheless, the Swiss parliament approved new legislation on 22 March 2013 covering the years 2014-17 that rearranges an unchanged amount of direct payments toward broader public-interest objectives and to try to remove conflicts with WTO "Green Box" criteria (those payments that are allowed without limit) (WTO, 2013, p. 11) (Box 1).

Box 1. The proposed new agricultural policy regime for 2014-17

The general aims of the new policy regime are to improve the competitiveness of Swiss agriculture with an increased emphasis on product quality in order to access new markets, increase the services provided by farmers for the community (ensuring food supplies in particular) and the efficient use of resources in farm production and to minimise the negative effects of farming on the environment (Lanz, 2012). More precisely, its most important measureable objectives are: to raise net and gross production slightly; to slow the trend annual decline of farm incomes from 0.7% to below 0.5%, the loss of farmland from 1 900 hectares to less than 1 000 hectares per year and reduce the natural spread of forests by 20%; to boost nitrogen and phosphorus efficiency by 4 and 9 percentage points, respectively and biodiversity strips by 5 000 hectares; and, finally, to cut methane emissions by more than 15%.

Besides overhauling the direct payments system within a constant budget envelope of some CHF 2.8 billion per year (82% of total measures) (Table 3), the legislation will shift some support from livestock and dairy producers to arable land production. Within the direct payment category there are to be more targeted payments for ensuring food supplies, maintaining and developing biodiversity and landscape quality, implementing certain production systems and achieving resource efficiency matched by a corresponding decline in transition payments. The new regime will likewise eliminate income/asset limits (except for transition payments) and no longer set size limits based on the number of animals but on acreage with minimum stocking density. And it will lower milling wheat customs duties slightly (by CHF 300 per tonne). Consideration was originally given to cut the CHF 0.15 per kg for milk processed into cheese, but the parliament refused that change.

Table 3. Payments budget for 2014-17

CHF million

Measure	2014	2017	Total 2014-17
Basic improvements and social measures	199	200	798
Secondary social measures	3	3	12
Subsidies for structural improvements	99	99	396
Investment loans	47	47	188
Arable and cattle farming	38	38	153
Production and sales	442	447	1 776
Promotion of quality and sales	60	70	262
Dairy farming	296	296	1 184
Cattle farming	13	13	52
Arable farming	73	69	279
Direct payments	2 814	2 814	11 256
Subsidies for ensuring food supplies	1 094	1 094	4 376
Farmland subsidies	511	511	2 044
Subsidies for biodiversity	295	338	1 264
Subsidies for quality of landscape	20	90	210
Subsidies for production systems	361	403	1 526
Subsidies for efficient use of resources	52	73	256
Transition subsidies	482	306	1 579
Total	3 455	3 461	13 830

Source: Lanz (2012), updated by the Swiss authorities.

The government engaged some modelling work to look at the impact of the changes (Zimmermann et al., 2011 and 2012; FOAG, 2012b). It shows farm incomes will be 4.2% higher than under an unchanged policy scenario, which will allow the average farmer to maintain his/her real income level. While total livestock numbers will fall by around 10%, total calories produced will rise by around 3% because of higher dairy yields and a shift toward arable farming and thus lower feed imports. Less intensive livestock production will lower excess residual production of nitrates and phosphates* as well as greenhouse gases and improve the sector's impact on biodiversity. There is an intermediate target for ammonia (NH₃) emissions of 44 000 tonnes, down from 49 000 tonnes in 2010; the ultimate target is 25 000 tonnes (Chavaz, 2013).

^{*} The nitrogen surplus has fallen by 25% since 1985 to some 102 000 tonnes, the phosphorus surplus by 65% since 1990/92 and pesticide use by 35% since 1990.

The continued high producer support to agriculture and the system of border protection has adverse effects on productivity in the agricultural sector and beyond. Improving the efficiency and competitiveness of the sector should be high on the agenda for Swiss agricultural policymakers. Reducing the overall level of support would enhance competition, induce farms to produce more efficiently, freeing up scarce labour and capital for more productive endeavours, and lower input costs for the food processing industry. Also, the shift from market-price support to direct payments should be continued more vigorously as many product-specific price supports are still in place.

Currently only 20% of direct payments are dedicated to achieving environmental protection and animal welfare, the rest being "general" direct payments. Even though the new policy regime for 2014-17 will better target direct payments to improving spending efficiency and achieving policy objectives in a less costly fashion it is clear that the government could have gone faster in this direction. Continuing to spend well over a billion francs per year to help ensure food supply security seems excessive, especially in view of the fact that Switzerland already holds emergency food reserves of several months domestic use for a variety of foodstuffs and could easily seek to ensure safe sources of import supplies – such as by agreeing free trade in farm products with the EU – and an efficient domestic sector. As recommended in the last *Economic Survey* (OECD, 2012), the government's 2014-17 plan will raise support for those projects with the highest potential for environmentally friendly production processes, and a levy on emissions-producing inputs such as fertilisers (as implemented by some other EU countries such as Austria, Finland and Sweden) would be helpful as part of an overall policy mix designed to achieve multiple agri-environmental goals. Setting a price on the emission of greenhouse gases from agricultural production would also improve the overall efficiency of Swiss climate-change policy.

In addition, downstream industries such as the food-processing sector benefit from a system of tariff protection and export refunds for locally processed agricultural products. It would be advisable to do a rigorous assessment of the impact of this policy on the entire farm and processing sectors and indeed on the economy at large over the longer term.

Also of concern is the fact that the share of public agricultural R&D expenditure in total agricultural support is low in Switzerland (1.5%), below the EU27 and the OECD averages (both 2.2%) (Figure 9).

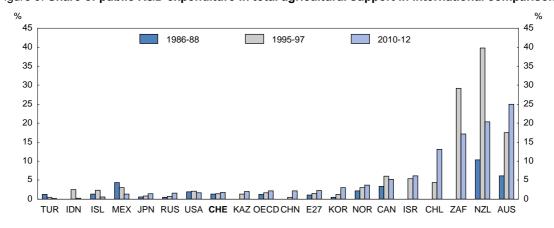


Figure 9. Share of public R&D expenditure in total agricultural support in international comparison¹

R&D expenditures as a percentage of the Total Support Estimate (TSE).
 Source: OECD.

Even if the Swiss shortfall would vanish if the figures were normalised on GDP, it would be prudent for the government not to disfavour this form of support. Technological progress can be a major source for improving productivity growth and allowing greater export orientation: most of the countries with

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export-focused farming sectors devote a large share of their public research budgets to agriculture. Empirical studies show that spending on R&D is an important component of agricultural innovation systems, with estimated rates of return of investments on agricultural R&D ranging between 20 and 80% (OECD, 2011b). The next policy programme covering 2014-17 is supposed to focus on innovation and entrepreneurship in the agricultural sector (FOAG, 2011).

Another problem is that some parts of the food sector are artificially exempt from competition. The most severe case is that of the market for salt, whose structure is clearly sub-optimal in today's context. Two cantonal salt monopolies (*regale du sel*) – one for Vaud and the other for the rest – were originally intended to ensure security of supply. The cantons set the price, and tax and customs duties apply. Imports of salt and products with high salt content require producers' approval. This medieval system needs to be eliminated.

Finally, with food safety and security concerns coming to the fore in Europe, it is gratifying that new food safety legislation that will align the Swiss system with the European Union's *acquis communautaire* is expected to come into force in 2015. Most importantly, while Switzerland is still applying the so-called "positive principle" – all foreign produced foodstuffs are prohibited unless they are approved by the competent federal authorities – the new law will shift to the "precautionary principle" whereby only items where scientific evidence as to their safety is unclear are temporarily prohibited until a better informed judgement can be made, which is more in line with the EU's *Cassis de Dijon* principle.

Box 2. Recommendations for public policies covering Switzerland's food and agriculture sector

- Further efforts are needed to reduce the overall level of agricultural support, which would induce farms to produce more efficiently and promote structural adjustment.
- Security of food supply should be sought through a more competitive agriculture sector, ensuring
 access to stable sources of imports and, if necessary, emergency reserves, rather than heavy public
 support.
- The shift from market-price support to direct payments should be accelerated, beyond the government's plans. Direct payments should be better linked to policy objectives to improve spending efficiency and to achieve policy objectives at lower cost. A differentiated direct payment system can more effectively target support to yield benefits regarding the environment, biodiversity and landscape management, while potentially competitive producers, mainly in the lowlands, should be allowed more freedom to optimise their business. This will require a differentiated policy approach and a more vigorous move away from market price support and border protection and should be combined with the introduction of a levy on emissions-producing inputs, such as fertilisers.
- The system of border protection involving, in particular, high import tariffs, an overly complex system of tariff rate quotas and export refunds for locally processed food products should be substantially liberalised. As well, the impact of the measures impacting the downstream processing sector should be carefully assessed. The market for salt is an especially egregious case where competition has been prevented from functioning.
- Impediments to making agricultural land more mobile within the sector to achieve greater scale economies and shifting it to other uses (inheritance law and land price controls) should be completely removed.
- The focus on innovation in the agricultural sector should be increased, as officially envisaged.

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