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"Development of socio-economic and agricultural structures in selected rural regions in Austria after EU accession"

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Abstract

This study focuses on the identification of key features of Austrian agricultural and rural transformation following EU accession in 1995. This is done by examining the general socio-economic trends and structural changes in agriculture at the national level, and exemplary also on regional level for the Tyrol. It draws conclusions on successful measures for managing rural and agricultural changes since EU membership.

This involves a comprehensive descriptive analysis of key socio-economic indicators and agricultural and rural development conditions based on documentary and secondary statistical sources and telephone interviews/consultations with key actors and experts.

Executive Summary

Introduction: Demographic and Macroeconomic Changes

Austria joined the European Union (EU) in January 1995, together with Sweden and Finland. This was only possible after the fall of the Berlin Wall. The economic and political climate, particularly its neutral status and geopolitical position at the edge of the Iron Curtain put EU membership to a halt for more than three decades.

With an area of almost 84,000 km² and a population of around 8.3 million (or 1.7 % of total EU27 at the beginning of 2007), the country ranks amongst the small EU Member States. Rural areas are extremely important in Austria with 47% of population living in “predominantly rural areas”, 31% in “integrated regions” and only 22% of population living in “predominantly urbanised areas”.

The country has one of the highest life expectancy for both male and female, currently ranking third amongst the EU member states. As in other developed countries, the increase of life expectancy and the decline of fertility rates led to significant changes in age structures and associated consequences for the pension system.

Accession of Austria, Finland and Sweden made the EU ‘richer’ on average as these three countries were among the more prosperous in Europe. Although not a member of the EU, the Austrian economy had performed remarkably well with most of its macroeconomic indicators well above the EU averages. For example, between 1988 and 1994, Austrian GDP per capita was 9% higher as compared with the EU average, and inflation and unemployment rates were around half the EU figures.

However, accession to the EU did not bring immediate benefits. Between 1995 and 2001, the real GDP declined by 0.7 percentage points as compared with 1988-1994, which meant

that the Austrian economy grew slightly less than the remaining EU15 on average. However, EU membership and the participation in the Eurozone brought an “era of price stability” which is generally judged to have been beneficial for the economy as a whole.

With a GDP per inhabitant of €30,200, Austria ranks fourth in the EU27 (after Luxembourg, Ireland and the Netherlands) and seventh within the OECD member states (in 2006).

Austria’s economy is dominated by services which accounts for almost two thirds of the gross value added and the total labour force. Manufacturing, particularly car industry and construction are predominant within the secondary sector, and both have thrived from participation in the Single Market.

Also tourism plays a significant role. It contributed 6% to the GDP and almost 8% of the total full-time jobs in 2006. With some 20 million international tourists visiting Austria in 2006, the country ranked as the ninth most attractive destination in absolute terms (and only large countries are ranked higher).

A specific characteristic of the Austrian economy is the significant predominance of small and medium enterprises. A specific characteristic of the Austrian economy is the significant predominance of small and medium enterprises. In 2005, the number of small and medium-sized Austrian firms represented 92.3% of total number of firms and of 40.4% of total employees, as opposed to 67.8% and 17.6% in Germany. More than 75% of the Austrian industrial and construction enterprises have less than 10 employees and only 1% of enterprises employ more than 250 people. This structure has an impact on the global competitiveness of the country.

Although not all macroeconomic indicators have performed as expected following Austria’s entry into the EU, overall, the economic development has been largely positive. After the fall of the Berlin Wall and prior to accession, its geographical location had become a strength leading to the transformation of the country into a hub for regional trade and foreign investors. Its explicit openness towards business with the new member states makes Austria one of the major beneficiaries of EU enlargement. Since accession, Austria has remained a frontrunner, being one of the most successful member states.

Agriculture and Rural Development Changes Following EU Accession

More than 85% of Austria’s territory is dedicated to agriculture (39.6%) and forestry (46.8%). As in most advanced economies, the sector has declined in terms of its contribution to GDP and labour force. Currently, agriculture and forestry supplies less than 2% of total GDP and employs 5% of the labour force and contributes around €7 billion to the economy on an annual basis.

Prior to accession, Austrian agriculture was highly protected and supported, with prices and farm incomes higher than the EU average. Hence, accession implied an alignment to the EU levels which triggered a sharp decline of most Austrian agricultural prices. This led

also to declining levels of agricultural income, which dropped by almost a quarter between 1995 and 1999.

Large parts of Austria's territory are mountainous. Only 17% (or around 1.4 million hectares) of total land is arable, whereas permanent pastures and meadows account for almost a quarter. Total Utilised Agricultural Area accounted for 39% of the total Austrian area in 2005. Most of the arable land (57%) is used for cereals, particularly wheat.

A clear increase of some land categories can be observed following the entry into the EU. For example between 1996 and 2006, the area under wheat went up by almost 20%, and grassland and sunflower have almost doubled. For the same period, arable land allocated to rape seed and sugar beet has gradually declined, whereas vineyards remained almost constant.

Cereals, forage plants, fruits, wine, cattle, pigs and milk account for more than 70% of total agricultural output. However, milk remains the biggest component of Austrian agricultural output contributing 14% to 16% of its total value.

The geography and topography of the country certainly influence the farming structure. Given that only 17% of total land is arable the number of crop farms is much smaller than those specialised in livestock or wood/forestry production.

Between 1970 and 1990, the number of Austrian agricultural and forestry holdings declined by almost a quarter from around 370,000 to 282,000. The descending trend continued steadily and five years later, in 1995, the number dropped by another 15%, reaching 239,099. Entry into the EU accelerated this downward trend, particularly from 1999 onwards, and by 2005, the total number of Austrian agricultural and forestry holdings declined by a further 21%; thus, one in five Austrian holdings were forced to leave the sector or merge their farm between 1995 and 2005.

There has been a significant decline in the number of small-size farm categories and an increase in the number of larger farms (50 hectares and above). In 1995, the proportion of farms with less than 20 hectares accounted for 46% of total number of holdings. By 2005, this declined to 31%. The largest decrease was recorded for farms with less than 5 ha.

There were 137,000 agricultural holdings with an economic size of at least 1 ESU in 2005, covering an UAA of almost 2.7 million hectares (average size of 19.6 hectares). Almost half of these have an economic size of less than 8 ESU.

Almost three quarters of farms are located in Less Favoured Areas, particularly in the mountains. In over a decade following accession to the EU, the number of LFA farms has decreased by 16%, whereas their average size rose by 20%, from 44 hectares in 1995 to around 53 hectares in 2005. Overall, mountain farms account for 38% of the total number of holdings, with an average size of 32 hectares.

95.6% of the Austrian agricultural and forestry holdings are in sole ownership, covering 62% of the total UAA. An important characteristic of these farms is that they are predominantly managed part-time.

Austria's agricultural sector is also characterised by a relatively high number of organic farms. The average size of an organic farm is 18 hectares, and 88% of these farms are specialised in livestock (mainly suckler cows and dairy cows). Austria ranks first amongst the EU member states regarding the share of organic-farmed area and second, after Italy, in terms of number of organic farms.

Nearly half of all Austrian farms are specialised in livestock (mainly dairy cows and cattle rearing and fattening), whereas only 12% and 9% of total agricultural farms are specialised in crops (cereals, oil seed and protein crops) and vineyards, respectively.

As in most EU member states, Austrian farm labour input has declined following the entry into the EU (by 20% between 1995 and 2007). Following the western agricultural model and given the small-scale of farms, more than 84% of total Annual Work Units is now provided by unpaid family members. Farming remains a family business, with one in two persons of total family labour force being a woman. 79% of family labour force is working part-time on the farm.

The contribution of subsidies is very significant to the current Austrian agricultural income and it played an important role prior to accession. In 2005, agriculture and forestry subsidies accounted for €2,420 million, of which 59% were paid out from the EU. The importance of direct payments as a share of the farm income has also increased over the years. A significant proportion (between 29% and 43%) of these direct payments is due to the agri-environmental measures support.

Other income sources than from agriculture are also important for Austrian farm households. An average farm household income (> 2 ESU turnover) consists of 13% agricultural and forest market income, 37% farm subsidies (e.g. direct support, LFA and agri-environmental payments) and 50% from other sources (17% social transfers, 25% off-farm salaries and 8% family support transfers). As regards farm subsidies, the average farm receives 600 €/ha per year, but this varies between 260 €/ha and 3,500 €/ha.

Compared with other EU15 member states, the distribution of direct payments is more even in Austria, with 53% of direct payments allocated to 86% of total producers (receiving less than €10,000). It is estimated that the average Austrian farm receives around €3,600 in the form of direct payments (e.g. an average French farm receives €14,114).

Given the natural conditions which characterise the Austrian agricultural sector, the development of pluriactivity and off-farm employment is very important for many Austrian farms, but particularly for smaller holdings.

A quarter of Austrian farmers practice some other gainful activity than agricultural production. Processing of agricultural and forestry products (e.g. must and cheese) is the most important secondary activity, with 48% of those holdings engaging in this type of

activity. Rural tourism also represents one of the major off-farm sources of income. At least one in three holdings with secondary activities was engaged in tourism in 2005. 'Farm holidays' attract annually a large number of tourists. Some 10% of Austria's total accommodation capacity is directly on farms and other non-farm activity holdings in rural areas. Estimates show that visitors spend annually between €1 and 1.2 billion on farm holidays, and this provides some 23,000 jobs in rural regions.

Policy Measures to Manage Socio-Economic Changes

The geography of the country has influenced very much the agricultural and rural development policies in Austria. With only less than 20% of land suitable for agriculture and most farms located in LFAs, particularly mountain areas, the government has concentrated its efforts to support the development and viability of these farms. Additionally, an increased public awareness for the environment and the preservation of cultural landscape led Austrian politicians to regard agricultural policy within a wider context, placing an emphasis on rural development.

Prior accession, the agricultural sector was heavily supported through interventionist and protectionist measures. Price support for key goods (e.g. milk, cereals and meat), import tariffs and export subsidies helped the survival of Austrian farms, particularly those of a small-scale. Moreover, considerable support was oriented towards the conversion of conventional farms into organic farming.

With accession to the EU, the financial support for the Austrian farm sector shifted from national and regional levels to Brussels. Between 1995 and 2006, CAP payments to the Austrian agriculture accounted for €1.1 billion per year on average.

In preparation for EU accession a new Agriculture Act was adopted in 1992. This laid down the main objectives of the Austrian agricultural policy, but in line with the EU guidelines. The Act highlighted the importance of farming within a healthy natural environment with a focus on the "ecological compatibility of agricultural practices" and a financial support for those who practice "environmentally friendly production methods". Moreover, the EU policy at the time of Austria's accession made the consolidation of such a strategy easier and the "Accompanying Measures", particularly the agri-environmental measures and compensatory allowances for LFAs, were more than suitable for Austrian farmers. Thus, the adoption of the CAP was considered by the Austrian government as the best opportunity for the expansion and consolidation of its agri-environmental programmes.

The first ÖPUL (Austria's Agri-Environmental Programme) was implemented in 1995 and it proved to be very popular. Some 180,000 farmers (more than 80% of eligible farmers) signed up for participation in the programme, covering over three quarters of the total Austrian UAA (excluding alpine pastures). More than a third (37%) of the entire national budget was used for payments of agri-environmental measures to farmers. Estimates show that, between 1994 and 1999, Austria spent on average €433 million per year for agri-environmental schemes, being one of the highest spending countries (alongside Finland) within the EU15.

The changes brought by the Agenda 2000 reform and the adoption of the Rural Development Regulation (EC 1257/99) which set up EU rural development policy as the second pillar of the CAP led to a newly designed ÖPUL in the year 2000. This was implemented from 2001 until 2006 and it included 32 measures, which covered specific regions as well as provinces. Out of the €7 billion of total public expenditure allocated to the Austrian Rural Development Programme (RDP) for 2000-2006, ÖPUL accounted for 62%. Between 2000 and 2006, Austria's received 16% of the total EU agri-environmental payments.

ÖPUL offers flat-rate payments by combining agricultural support with agri-environmental schemes. The maximum annual level of payment per farm varies between €690/ha and €872/ha, with premiums for arable land between €41/ha for 'greening of arable land in autumn and winter' and €327/ha for organic farming. The programme continues to be at the core of the Austrian agriculture and rural development policies, and it remains the main source of public support for agriculture.

As some 70% of total agricultural land falls within the LFA category, the LFA compensatory allowance is the second most important instrument for rural Austria. Following EU accession, these payments replaced the previous direct aid distributed (through the federal and provinces levels) to mountain farms under the Mountain Farmers Special Programmes.

The LFA payments aim to compensate farmers for the higher production costs caused by the natural handicaps and seek to reduce the negative effects of farm abandonment in these areas. Farmers receive compensation in accordance with the severity of the natural conditions and farm types. The level of support is the highest for the first six hectares. There is also a second level of support (area aid II) which is progressively reduced from 60 up to 100 hectares. Some 14% to 37% of farm income is provided through this instrument.

Under Pillar II of the CAP, for the period 2000-2006, the Austrian LFA payments accounted for €1.8 billion (or 26%) of total public expenditure. 36% was from the EU. Agri-environmental measures and the LFAs compensatory allowances taken together account for 86% of total public support for Austria's rural development between 2000 and 2006.

Although farming remains at the core of the Austrian agricultural and rural development policies, Austria devotes one of the largest shares of public support of all EU Member States to Pillar II. In 2005, 70% of Austria's budget for agriculture was allocated to rural development measures (mainly ÖPUL and LFA payments) and only 30% went to the first pillar. Agricultural spending under Pillar I concentrates mainly on direct support and processing and marketing.

Although difficult to single out the effects of Structural Funds on the development of rural areas (mainly due to the interaction of different public funding sources, plus also private sources), it is generally accepted that, following accession to the EU, the Austrian regional policy and regional development has gained new salience. Following EU accession, regional funding accounted for approximately 32% of total economic subsidies, being more than double as compared to previous years. Regional development is based on co-financing EU

contributions based on the classification of objective areas. The total amount of EU Structural Funds between 1995 and 1999 amounted to €1,623 million (at 1995 prices).

The only Austrian region eligible for Objective 1 was Burgenland, which covers the most eastern part of Austria (Objective 1 status was terminated in 2006).

Although very little financial resources were allocated to the LEADER-type Programmes this was well received by many Austrian local communities following the country's entry into the EU. Both, LEADER II (1995-1999) and LEADER+ (2000-2006) have generated a considerable positive response and attracted an important share of participation from the population. The number of Local Action Groups (LAGs) increased from 31 for LEADER II to 56 under the LEADER+ programme. LAGs were established in eight Bundesländer (all federal provinces on NUTS 2 level but Vienna) and covered 54% of total area and 27% of the Austrian population (the third largest share within the EU15 and almost double of the EU15 average).

Following 2003 CAP reform, decoupling and partial decoupling lead to a budget shift from product premiums to the Single Payment Scheme (SPS) within Pillar I. Milk is decoupled from the year 2007 onwards. The following categories will remain coupled: suckler cow premium (100%), slaughter premium calves (100%), slaughter premium bovine adults (40%), hops payment (25%). In 2005, the SPS accounted for 46.5% of Pillar I.

In line with the changes brought by the Mid-Term Review (2003) and the adoption of the new Rural Development Regulation (EC) 1698/2005, Austria opted for a single national RDP. This was approved by the European Commission on September 2007. Axis 2 received the largest share (72%) of total public expenditures allocated to the Austrian second pillar.

Within Axis 2, agri-environmental payments and compensatory allowances for LFAs account for 90%. Payments from this axis contribute to safeguarding the farmed environment, support/compensate farmers for specific environmental services and the delivery of Natura 2000. The promotion of organic agriculture continues to be a priority, the national strategy plan envisaging that some 18% of total managed land to become organic by 2013.

Tyrol Region

Tyrol, with its capital Innsbruck located in its centre, is situated in the western part of Austria in the Alps, bordering with Italy in the south, Germany in the north, and other Austrian provinces in the west (Vorarlberg) and east (Salzburg and Carinthia). Administratively, it constitutes a NUTS 2 region with five NUTS 3 subregions.

With an area of 12,648 km² and a population of around 700,000, Tyrol covers 15.1% of total land area, 8.5% of Austria's population and accounts for 8.7% of the country's GDP.

Tyrol is Austria's most mountainous federal province. Only 9.3% of the land area is used for agriculture, but 27.3% are mountain pastures and 37% are wooded. Tyrol's Alpine character

means that only 11.8% of its total area is currently used for permanent settlements as compared to 37.4% for the country as a whole.

Tyrol is perceived to be a relatively wealthy province although its gross income level is still below the Austrian average, but relative productivity is high with an above average GVA per head. The income is mainly generated from tourism and the associated retail market, and industry with its services. Winter and summer tourism is extremely important, making Tyrol one of the top 20 tourist regions within the EU27.

The population density of 55 inhabitants/km² distributes unevenly, with large barren land in the mountains and one main agglomeration in and around Innsbruck (1,124 inhabitants/km²), stretching to the east and west along the Inn valley.

The region, like other places in the EU, experienced the ageing effect of the population. However, the regional employment opportunities in tourism and also industry, plus the attractive scenery has attracted an increasing number of in-migrants, which led to steadily rising population figures. Tyrol shows the lowest divorce rate (37.5%) and the highest life expectancy among the federal provinces.

Services account for most (70%) of the GVA of the region, followed by secondary sector (28.7%), both increasing substantially since EU accession. The primary sector accounts for only 1.2% of the regional GVA (basic prices).

The total Tyrolean GVA per capita compares favourably with the Austrian average. Although the region experienced a slight dip in the first three years after EU accession, it finally caught up again after the turn of the millennium and is three percentage points above the Austrian average from 2003 onwards. Within the region, Außerfern confirms a remarkable economic progress. Immediately after EU accession, the GVA per person was below the Austrian average. By 2005, it is nearly 15% above the Austrian average, with Außerfern coming out top of all Tyrolean NUTS3 regions.

The unemployment rate in Tyrol is traditionally below the Austrian average (5.5% versus 6.8% in 2006 - Austrian calculation method), but female unemployment remains higher than on the national level.

Although agriculture contributes a very small share of the economic output of the region, as in most mountain areas in Europe, it has a central role in maintaining the cultural landscape. This is provided by farmers performing multifunctional services such as cultivating their land, promoting tourism and local food production, maintaining forests to protect settlement areas in the Alps, secure biodiversity on otherwise wooded land, and preserving cultural heritages in the area.

Following EU accession, Tyrol experienced a strong decrease in farm numbers (especially those managed part-time) as did Austria as a whole. Around 4,000 farmers (19% of total Tyrol farms) stopped farming or merged holdings between 1995 and 2005. Recently, this sharp decline slowed considerably. Currently, the region accounts for 9% of total

agricultural holdings. The average farm in Tyrol is 73 ha in contrast to 40 ha at the national level (due to mountain pastures and forests).

Only 38% of agricultural holdings were managed full-time in 2005. Thus, the majority of farmers have other gainful activities, either closely associated with farming and/or contractual employment in agriculture or other industries (e.g. forest or tourism related).

Given the geography and topography of the region and as most farms have a LFA status, public subsidies are extremely important for the survival of these farms. Some 27% of total output (and 80% of net income) of Tyrolean farms represented public subsidies in 2005. This contrasts with 24% for Austria. The proportion of subsidies rises considerably with increasing handicap due to disadvantages arising from being located in the mountains. The share of direct payments in family farm income has slightly increased since EU accession, from 23% in 1995 to 27.3% in 2005.

In Tyrol, the average farm household income (output including subsidies minus variable and fixed costs) stems to 62% from agriculture and forestry, 22% is non-farm earnings, and 16% are transfer payments (e.g. child benefits and pensions). These vary along the groups of farms with certain levels of handicap; subsidies get higher, the higher the handicap of the farm. However, the Tyrolean total farm household income is well below the Austrian average (by 14% in 2005, and by 18% in 2004).

Livestock production takes the highest share of total output values, ahead of forestry, crop production and non-agricultural activities. No particular structural developments can be depicted following accession, as variations appear to be explained with cyclical fluctuations, indicating that the support system was quite successful in keeping the production (and thus landscape) patterns as they were.

The somewhat high share of non-agricultural activities stands out. Within this category, farm holidays are most important. Tyrolean farmers are successful in establishing several income streams to support their livelihood, though it seems that the relevant revenue streams have already been established some time before EU accession (e.g. tourism).

As for the country as a whole, the Rural Development Programme, particularly the agri-environmental scheme (ÖPUL) represents the most important financial instrument for the Tyrolean agriculture. Consequently, agri-environmental subsidies and LFA compensatory allowances account for the largest part of CAP payments to Tyrolean farmers.

The most important of the twelve measures of ÖPUL Tyrol were (ranked according to their volume): support of mountain pasturing, abandonment of yield-increasing inputs on grassland and arable land, organic farming, maintenance of cultural landscapes, and the basic measure.

As regards Structural Funds, during the programming period 1995-1999, the region was partly covered under the Objective 5b programme. This changed in the programming period 2000-2006, where some of the areas started to be phased out and the remaining

regions (Osttirol, large parts of Tiroler Oberland and also one part of Außerfern, but also some of Innsbruck Land) received the newly defined Objective 2 status, now covering rural regions with structural problems.

The total cost of the Tyrol Operational Programme for 2000-2006 was €216 million, of which €46.6 million were provided by the ERDF, which is 21.6%. In the previous programming period Tyrol received €36 million. Interestingly, there is a considerable amount of private money to support the implementation of the projects, especially under priority 1, promoting business, attractiveness of workplaces, and new technologies. INTERREG and LEADER have been the two most important Community Initiatives in Tyrol and they continue to be so.

Success Factors in Managing Socio-Economic Changes in Rural Austria since Accession

There is no one single factor but a combination of local and external reasons that may explain the success of rural Austria following the accession to the EU. However, given that success is a relative term, it is important to define what success means in this case study. The success or otherwise can be measured against the national average, against the average of the EU as a whole, or against a similar region. Tyrol is perceived to be a relatively wealthy province although its gross income level is still below the Austrian average. However, the total Tyrolean GVA per capita compares favourably with the Austrian average and the unemployment rate is also well below the Austrian average. Moreover, in Tyrol agriculture contributes a very small share to the regional economy directly, but one may argue that it contributes much more indirectly by preserving a pleasant mountainous landscape for tourism and the local population. Thus, it is true for large parts of rural Tyrol that farming remains at the core of the rural community. Its central role is to maintain the natural and cultural landscape and protect settlements area in the Alps.

A successful development in terms of a wider 'rural development' depends, however, on the skilfully established linkages between agriculture and the remaining economy, be it with tourism to add some value-added for both sectors through innovative products and services, or be it with establishing separate income streams, for part-time farmers, via employment contracts in tourism, construction, forestry, etc. While some of these developments happen due to dynamics within specific industries without much intervention from public policy, others require a holistic approach to develop 'the region' along certain guiding visions, which then also feeds back into a regional identity that helps mobilise the local population. Important is here also that these interventions by public policy respect dynamics in specific industries and localities, i.e. take advantage of strengths.

Strategically, Tyrol (and mostly also Austria at large) follows the concept of an integrated rural development whereby pluriactivity and the preservation of the environment and cultural landscape are the cornerstones of rural-agricultural development, embedded in a strong regional identity. The three pillars of economic development in Tyrol, tourism, industry, and integrated rural development, are supported by CAP measures (less-favoured areas, agri-environmental measures, cross-compliance, LEADER) and the Structural Funds measures (innovation focus, interregional cooperation, protection of the environment).

An important role in the success of these initiatives can be attributed to the ‘governance’ structures. Already before EU accession, Austria had very good, though sometimes informal links between national and regional stakeholders, which were (e.g. regional policy) formalised during accession. A clear and engaging delivery of measures facilitates also proactive attitudes of different stakeholders, not last by farmers themselves. The vision for the region for the nearer future is seen by stakeholders to lie in even reinforcing the already well working consultancy services in the localities (agricultural chambers), hereby focusing on the local/regional client (more loyal and cheaper to reach), and thus also create regional circular flows in the sense of sustainable development.

The dual-education system (agriculture and one additional profession) and continuing training of farmers is also seen to contribute substantially to the relative success in Tyrolean agriculture. A very distinct and flexible farmer training scheme is still possible, where it is perceived to be positive that the EC still does not put emphasis on standardisation. Thus, it is easy to adapt these systems to local and timely needs. It is also voiced that future amendments on any topic should better not be made by creating ‘hard facts’, via obligatory regulations, because these always create problems in adapting to local circumstances.

Conclusions

Although agriculture has continued to decline in importance within the national economy as a whole, it remains at the centre of Austria’s rural community by maintaining the natural and cultural landscape and the conservation of the environment. Farmers are fulfilling their multifunctional role by performing services such as cultivating their land, maintaining forests to protect settlement areas in the Alps, securing biodiversity, preserving traditions and cultural heritages and providing services for tourism.

The implementation of an integrated territorial approach has been successful, whereby pluriactivity and the preservation of traditions and environment are considered the core for rural-agricultural development. However, this would not be possible without the financial support given (now provided through the CAP and Structural Funds).

Additionally, a successfully facilitating administration in the sense of “governance” is also very important for the development of regions. This should start, in the experts’ view, with a professional collaboration between the national ministries and the regional authorities to elaborate integrated, focused, and pragmatic national development plans, which can then be adapted to regional circumstances.

The creation of an “institutional memory” based on trust, openness and professional attitude to facilitate a successful integrated regional and rural development is believed (in the experts’ point of view) as vital for the new member states. Moreover, at the regional level, a clear-cut and engaging involvement of both local stakeholders (bottom-up) and regional authorities (top-down) to develop and implement projects within programmes like LEADER and deliver programmes laid down in national and regional development plans is of utmost importance.

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LIST OF ABBREVIATIONS

ACF	Agreed Common Framework
AKI	Research Institute for Agricultural Economics
AWU	Annual Work Units
BKA	Bundeskanzleramt (Federal Chancellery)
CAP	Common Agricultural Policy
CEE	Central and Eastern Europe
CEC	Commission of the European Communities
CEEC	Central and Eastern European Countries
EEC	European Economic Community
EFTA	European Free Trade Agreement
ERDF	European Regional Development Fund
ESF	European Social Fund
EU	European Union
EC	European Commission
ESU	European Size Unit
EAFRD	European Agricultural Fund for Rural Development
FDI	Foreign Direct Investment
EAGGF	Fonds Européen D'Oriation et Garantie Agricole/European Agricultural Guidance and Guarantee Fund
GDP	Gross Domestic Product
GVA	Gross Value Added
IMF	International Monetary Fund
LAGs	Local Action Groups (delivering the LEADER programme)
LEADER	Links between actions for the development of the rural economy
LFAs	Less Favoured Areas
MTR	Mid-Term Review
MFC	Mountain Farm Cadastre
ÖPUL	German acronym for the Austrian "Agri-Environmental Programme" for the promotion of an environmentally compatible, extensive agriculture which preserves natural areas and maintain the countryside
OECD	Organisation for Economic Co-operation and Development
PSE	Producer Support Estimate
RDR	Rural Development Regulation
RDP	Rural Development Programme
SCARLED	Structural change in agriculture and rural livelihoods
SGM	Standard Gross Margin
UAA	Utilised Agricultural Area
WP	Work package

1 Austria's Macroeconomic Context since EU Accession

1.1 The Road towards EU membership

Austria joined the European Union (EU) in January 1995, together with Sweden and Finland. These were the first Western countries to join the EU after the fall of the Iron Curtain. Although Austria joined the EU relatively recently, its ties with the European Economic Community (EEC) dates back to the foundations of the Common Market in the 1950s. After signing the 1955 State Treaty², the Austrian Government embraced the idea of joining the European Coal and Steel Community in 1956, but the anti-communist uprising in neighbouring Hungary and the subsequent Soviet intervention put a halt to Austria's aspiration of membership (Luif, 2006). As a signatory of the Treaty, the Soviet Union did not approve of Austrian membership by insisting on Austria's neutral status and on the guarantee that the country would not join the North Atlantic Treaty Organisation (NATO). Thus, because membership of the EEC was taken to imply deepening political involvement with the West, the 'fear' of infringing its neutrality and destabilising its delicate geopolitical position, led Austrian politicians to explicitly rule out the prospect of accession (Luif, 2006). Additionally, the tense discussions with Italy on the South Tyrol area also served as a barrier to Austrian membership (Mooslechner, 2005). These political difficulties, however, could not stop the Austrians from seeking more straight-forward economic opportunities and developing ties with the EEC, as well as to develop its position within the wider international community.

In 1960, Austria became a founder of the European Free Trade Agreement (EFTA), an exclusively economic yet flexible trade organisation, which also included other neutral states such as Sweden and Switzerland. Nevertheless, as some 66 percent of Austria's foreign trade³ was with the EEC members and as it became clear that other EFTA members (e.g. UK and Denmark) would apply for membership, the country tried to obtain a special economic agreement with the Community. This happened, however, after a decade of negotiations (in 1972) when a free trade association agreement was signed with the EEC, which allowed for a gradual reduction of tariffs for industrial goods. These were reduced to zero only in 1984 (Luif, 2006). Austria has also become a member of the Council of Europe and the European Convention on Human Rights, and played an active role in the Commission on Security and Cooperation in Europe (Philippi, 1995). More recently, it acted as a bridge between the Balkan states and the EU (Gubb, 2007).

Luif (2006) and Bieler (2000) note, however, that although the incompatibility with the neutral status was given as an official reason, the rejection of EEC membership for more than three decades was also rooted in domestic political motivation, particularly the threat to its social and welfare systems. From 1970 up to the late 1990s, the centre-left social democratic party⁴ dominated the Austrian political arena. Moreover, a large share of the Austrian industry was nationalised, making it more difficult to compete in a more liberalised market environment such as the EEC (Luif, 2006).

² The Austrian State Treaty was signed in May 1955 with the allied powers of the Second World War (UK, US, the Soviet Union and France). It re-established the full sovereignty to the country. Although the neutrality status was actually not included in the original text of the Treaty, the Austrian Parliament passed it as a constitutional law (Luif, 2006)

³ <http://www.country-data.com/cgi-bin/query/r-875.html>

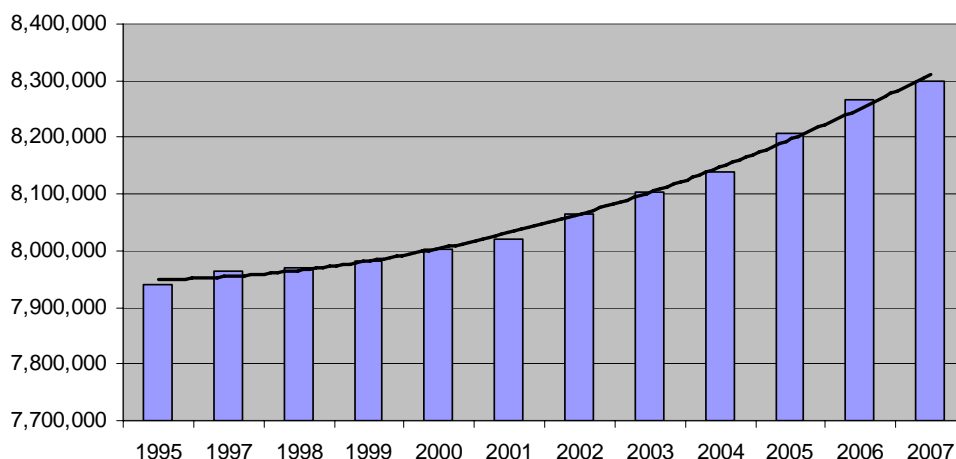
⁴ The former Socialist Party became the Social Democratic Party of Austria in 1991.

Although the end of the Cold War redefined the neutrality status for Austria (and Sweden), making it less of an obstacle, this was not the sole factor in pushing these countries towards EU membership. According to Bieler (2000), more important was the loss of trust among the Austrian society in the superiority of its economic and political systems, which started to erode from the mid-1980s. The “end of the Fordist accumulation regime” and the global economic recession hit the Austrian economy as well as the rest of western Europe (Luif, 2006; Bieler, 2000). Hence, the creation of the Internal Market was seen as an opportunity for economic revival, but also for the reparation of the damaged society-state relationship. This view is also supported by Liebscher *et al.* (2005) who argue that economic factors (e.g. integration into the Single Market and unrestricted access to European markets) played a dominant role in Austria’s accession to the EU. Austria submitted its application for EU membership in 1989. The negotiation for accession began in February 1993 and was concluded a year later when the Accession Treaty was signed. The Austrian people approved EU membership in a referendum with a majority of 67% (Breuss, 2003). The country finally became EU member on the 1st of January 1995.

1.2 The evolution of main macroeconomic indicators since EU accession

Austria has an area of almost 84,000 km², being somewhat smaller than Portugal and Hungary, but larger than Czech Republic (Statistik Austria, 2007). With a population of around 8.3 million (or 1.7 % of total EU27) at the beginning of 2007, the country ranks amongst the small EU Member States. Austria’s population has continued to increase slowly since the 1970s, and this trend continued and after accession. On the 1st of January 1995 it accounted for 7.9 million, and it reached 8.3 million at the beginning of 2007 (Figure 1.1). Although population growth was rather modest (at an annual average rate of just 0.1%) between 1995 and 2000, this has slightly accelerated from 2001 onwards (at an annual average growth rate of 0.6%).

Figure 1.1 Evolution of Population, Austria, 1995-2007



Source: based on Eurostat data

More than half (51.3%) of total Austrian population is represented by women; this larger share being partially explained by a higher life expectancy of female as compared to men (Table 1.1). Nevertheless, life expectancy rose for both men and women, and currently Austria ranks third amongst the EU member states with a high life expectancy. According

to Statistik Austria (2007), the recent growth of Austrian population is, however, mainly due to positive net in-migration. For example, between 1996 and 2006, the number of immigrants increased by 44% as compared to only 11% rise in the number of emigrants. The country has experienced two significant waves of immigration, one in 1991 and another in 2001. By 1994, the number of foreigners accounted for 8.4% of total population, reaching 10% in 2007 (Statistik Austria, 2007). Moreover, as in other developed countries, the increase of life expectancy and the decline of fertility rate led to the ageing of population. The age structure of Austrian population shows that there have been some significant changes. There is a clear decline of the percentage of population group 0-14 years, from 17.8% in 1995 to 15.6% in 2007, and an increase in the share of population with an age above 65, from 15.1% to 16.9%⁵. For the same period, the proportion of population above 75 years of age has also increase by 1.6 percentage points. The IMF Country Report for 2007 highlights that the pressure of ageing it is likely to increase after 2010 and the old-age dependency ratio may doubled by 2050. This will increase the burden on pension, health and long-term old-age care systems.

Table 1.1 Selected Demographic Indicators, 1997-2007

	1997	1998	1999	2000	2001	2002	2003	2005	2006
Life expectancy (years)									
- male	74	74.5	74.8	75.1	75.6	75.8	75.9	76.7	77.1
- female	80.6	80.8	80.9	81.1	81.6	81.7	81.6	82.2	82.7
Birth rate/1,000	10.5	10.2	9.8	9.8	9.4	9.7	9.5	9.5	9.4
Death rate/1,000	10.0	9.8	9.8	9.6	9.3	9.4	9.5	9.1	9.0

Source: http://www.statistik.at/web_en/statistics/population

Accession of Austria, Finland and Sweden, in 1995, made the EU 'richer', on average, as these three countries were among those prosperous in Europe (Breuss, 2003). Although not a member of the EU, the Austrian economy had performed remarkably well. Breuss's analysis (2003) shows that, between 1988 and 1994, the economic growth, measured by annual average rate of change of real Gross Domestic Product (GDP), was 0.7 percentage points higher in Austria than in the EU15. Moreover, for the same period, Austrian GDP per capita was 9% higher as compared with the EU average, and inflation and unemployment rates were around half the EU figures (Table 1.2). The country recorded, however, a smaller current account, but a higher public deficit and a negative trade balance than the EU15. Breuss (2003) points out that the economic performance of 1988-1994 encompasses also the impacts of global economic trends (*e.g.* the period of economic recession in Europe and the fall of the Berlin Wall). The latter brought radical changes in relations with the Central and Eastern European Countries (CEECs). The OECD Economic Survey (2003) also supports this argument, as the opening of the CEECs markets and the reunification of Germany (one of its main trading partners) boosted Austrian exports.

⁵ http://www.statistik.at/web_en/static/demographisches_jahrbuch_2005_38247_017083.pdf and Statistik Austria, 2007

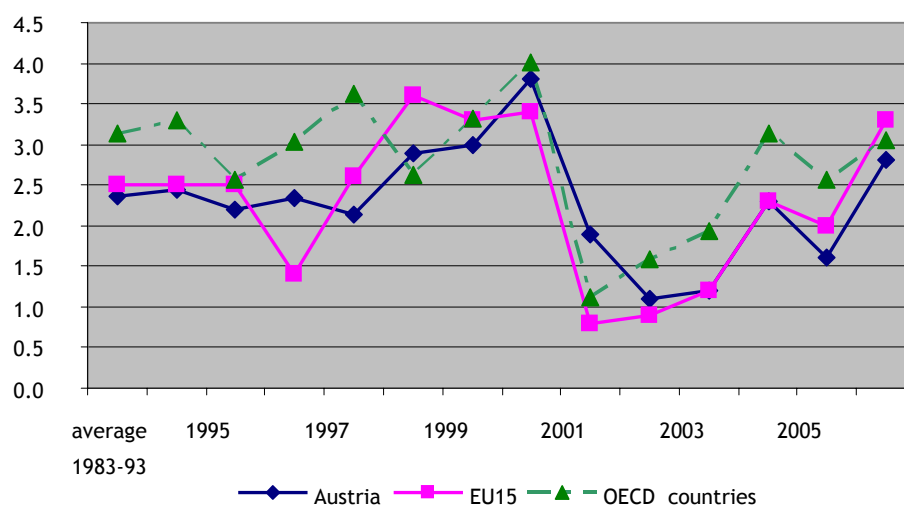
Table 1.2 Macroeconomic Indicators, Austria and EU15, 1986-2006 (annual average change %)

	1988-1994		1995-2001		2003		2006	
	Austria	EU15	Austria	EU15	Austria	EU15	Austria	EU15
Real GDP growth	3.0	2.3	2.3	2.5	1.2	1.2	3.3	2.8
GDP per capita (PPS) (EU=100)	108.5	100	111.6	100	110.5	100	110.6	100
Inflation (Consumer Price)	2.9	4.5	1.5	2.1	1.3	2.1	1.6	2.2
Unemployment rate (Eurostat definition)	4.6	9.1	5.3	9.4	4.3	9.0	4.7	7.7
Labour productivity growth	2.4	...	2.2*	1.6*	1.0	1.0	1.7	1.6
Total factor productivity growth	1.3	...	1.4*	1.2*	0.2	0.3	1.5	1.1
Long-term interest rate	7.6	9.5	5.6	6.0	4.2	4.2	3.8	3.9
Current account	-0.3	-0.4	-2.7	0.5	1.4	0.4	3.5	-0.4
General government debt (as %of GDP)	59.4	58.9	65.5	68.5	64.6	63.4	60.0	63.1

Source: Breuss (2003); CEC (2007a) Statistical Annex of European Economy Autumn 2007 ECFIN;
* it refers to 1996-2000

The seven-year period following accession (1995-2001) recorded a fall in the real GDP of 0.7 percentage points as compared with 1988-1994, which led to the Austrian economic growth being slightly less than that of the EU15 (Table 1.2). The falling trend continued and for the period 2002-2006, when the average real economic growth represented just above half (1.6%) of that of 1988-1994 (own calculation). Annual changes of real GDP are also captured by Figure 1.2.

Figure 1.2 Evolution of Real GDP Growth, Austria

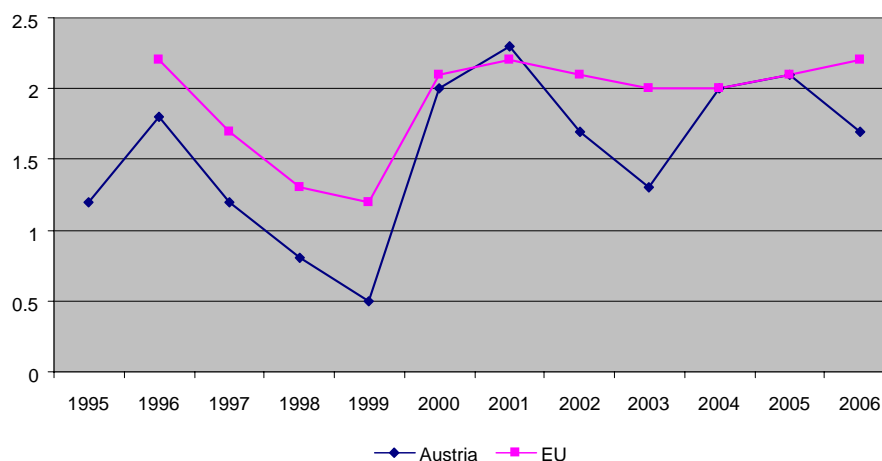


Source: Based on OECD Economic Outlook No. 82 and Eurostat Database

Overall, however, between 1995 and 2006, the real GDP growth has gradually increased by an average of 2.1% per annum. Moreover, Nauschnigg (cited in *The Economist*, 22 November, 2007) examining the economies of Austria and Switzerland found out that, between 1990 and 2006, the Austrian GDP growth was 28% higher than that of its neighbour. Although this is not entirely due to EU membership, in this author’s view, it is expected that this would have been lower if Austria had not join.

There is little doubt that EU membership required profound structural reforms. Although, the economy may performed less well than expected following EU accession, Liebscher et al. (2005) highlight that the first ten years of EU membership were, however, “an era of price stability”. Inflation dropped to 1.5% in 2006 (Figure 1.3). In these authors’ view the adoption of the Euro was very beneficial for the economy as a whole. For example, it is hardly affected the general price level, and more important it had a stabilising effect and preserved Austria’s competitiveness. Indeed, the Austrian average inflation rate between 1996 and 2005 was 1.5% as opposed to 1.9% for the Euro area or 2.2% for EU25 (CEC, 2006). This is also almost half the average inflation rate for the period 1988-1994, which strengthen somewhat the benefit of EU membership, but particularly the adoption of the Euro, for the country as a whole.

Figure 1.3 Inflation rate (% change previous year), Austria and EU, 1995-2006



Source: Based on Eurostat database; Note: EU data refers to EU15 up to 1998

With unemployment rates much lower than the EU average (for more than thirty years), Austria’s labour market has been considered “a model of excellent performance”, (Sherwood, 2006). Traditionally, its labour market is characterised by a “high flexibility and mobility” (Mooslechner, 2005, p. 36). In 2006, the country has achieved the Lisbon target of employing 70% of its working population (Table 3). Moreover, since EU accession, Austria succeeded to reduce female unemployment (Stiglbauer, 2005), the proportion of

working age women rising from 59% in 1995 to 63.5% in 2006⁶. This is well above the EU15 average of just 58.7%

At least two factors can explain the reduced unemployment rates over the years (e.g. the incentives for early retirement which have discouraged the participation of older people (between 55 and 65 years of age) and the average duration of higher education, longer than in other countries (e.g. at 6.3 years as opposed to an average of 4.7 years on the OECD countries) [Sherwood, 2006]). Additionally, the higher rate of employment of young people (between 15 and 24 years of age) may also have its contribution (Stiglbauer, 2005). The participation rates of Austrian older workers are amongst the lowest in the EU (i.e. almost 10% lower than the EU15 average in 2006 [Table 1.3]). Walterskirchen (2004) also argues that, when compared with other countries, Austria benefits from the way unemployment is defined in the international statistics, respectively by excluding the seasonal unemployment, which is very high in some Austrian sectors such as tourism and construction.

Table 1.3 Employment rates (%), Austria and EU15, 1995-2006

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Austria	68.8	67.8	67.8	67.9	68.6	68.5	68.5	68.7	68.9	67.8	68.6	70.2
EU15	60.1	60.3	60.7	61.4	62.5	63.4	64	64.2	64.4	68.8	65.4	66.2
Female-Austria	59.0	58.4	58.6	58.8	59.6	59.6	60.7	61.3	61.6	60.7	62.0	63.5
Female-EU15	49.7	50.2	50.8	51.6	53.0	54.1	55.0	55.6	56.2	56.9	57.8	58.7
Male-Austria	78.5	77.3	77.1	77.0	77.6	77.3	76.4	76.4	76.4	74.9	75.4	76.9
Male EU15	70.5	70.4	70.6	71.2	72.1	72.8	73.1	72.8	72.7	72.7	73.0	73.6
Older workers-Austria	29.7	29.1	28.3	28.4	29.7	28.8	28.9	29.1	30.3	28.8	31.8	35.5
Older workers-EU15	36.0	36.3	36.4	36.6	37.1	37.8	38.8	40.2	41.7	42.5	44.2	45.3

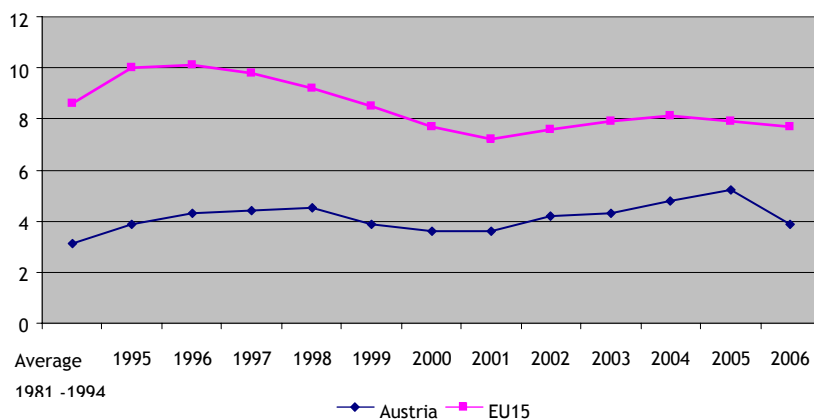
Source: Eurostat; Note: older workers refers to people between 55 and 64 years of age

However, although unemployment had remained at the lowest rates amongst the EU member states, the figures recorded over a decade since EU accession shows that the unemployment rate⁷ has actually increased by almost 1.5 times, from 3.9% in 1995 to 5.2% in 2005 (Figure 1.4). For the same period, long-term unemployment (e.g. 12 months and more) has also risen slightly from 1% to 1.3% as opposed to clear decrease of the EU15 average (from 4.9% in 1995 to 3.2% in 2006) (Eurostat).

⁶ Lisbon goal refers to 60% of working age women.

⁷ It calculated according to the harmonised Eurostat definition.

Figure 1.4 Unemployment rate (%), Austria and EU15, 1994-2006



Source: based on CEC, 2005, Statistical Annex of European Economy, autumn, 2005 and Eurostat;

A number of studies (e.g. Sherwood, 2006; OECD, 2003; and IMF, 2000) point out that the pressure on the Austrian job market has increased in recent years and the gradual rise in the unemployment rates are mainly due to the “sluggish job creation”, with annual employment rates changing very little (Table 1.3). Additionally, public employment and the early retirement policy (and disabilities pension) have also been instrumental for the labour market (IMF, 2000). A generous pay-as-you-go pension system but with a “weak tax-benefit linkage” led Austria to rank amongst the countries with the highest public expenditure on pensions as share of GDP (e.g. 15% as opposed to 10% for the EU average in 2000 [Keusschnigg and Keusschnigg, 2004]). Applied to relieve tensions on the labour market and increase the participation of younger workers and new entrants, the extensive retirement policy had actually an opposite effect (OECD, 2003). The scheme failed not only to boost hiring young people, but also it has reduced the participation rate and slowed down labour force growth (IMF, 2000). The pension reforms of 1997, 2000 and 2004, although brought some significant changes, did not encourage sufficient the participation of older people. An early retirement is still possible from age 62 for workers with at least 37.5 years of contribution (OECD, 2005). Moreover, Sherwood (2006) points out that the easier access to disability pensions for unskilled workers aged 57 and above, is used as an alternative to early retirement. In 2003, the average exit age for an Austrian was 58.8 years as opposed to 61 years for EU15 or 63 years for the UK and Sweden. The 2004 General Retirement Income Act (Allgemeines Pensionsgesetz) which improves the incentives for working longer or looking for a job have also introduced an early retirement option for those engaged in onerous work and modified the old-age part-time employment scheme (OECD, 2005). It is, however, believed that although some progress has been made to reduce incentives for early retirement, some measures actually act in its favour (OECD, 2005).

The Austrian labour market is also characterised by a significant increase in the share of part-time employment (e.g. from 14% of total employment in 1995 to 21.8% in 2006, whereas the absolute level of full-time employment has slightly changed). As a result,

Austria is currently amongst the European countries with the highest part-time rates. The increase flexibility in working-time, led to the increase in female participation to labour force. Indeed, part-time work is frequent amongst women (*e.g.* more than 75% of total part-time employed persons are women). Moreover, Statistik Austria estimates reveal that part-time working is not anymore restricted to people with a lower level of education; for example some 46% of part-time employed women had attended a grammar school and obtained the Austrian school-leaving certificate qualifying for university attendance.

Although the Austrian labour market has been exposed to two significant waves of immigrants, Sherwood (2006) notes that recent official forecasts (up to 2020) show that immigration, particularly from the new EU member states will not represent a serious threat to national labour force. Moreover, medium and high-skilled labour force from CEECs may actually complement the domestic supply, hence “reducing the bottlenecks in some sectors of the economy without “stealing jobs” from low-skilled workers” (p.5).

The performance of the Austrian economy following EU accession is also reflected by the magnitudes of labour productivity, but particularly the GDP per capita. When expressed as GDP per person employed, the Austrian labour productivity is well above the EU averages (*e.g.* almost ten percentage points above the EU15 area and 16 percentage points above the EU25 in 2006 [Table 1.4]). However, when expressed as GDP per hour worked⁸, the situation is slightly different (Table 1.5). Although above the EU15 average for the first two years following accession, Austrian labour productivity per hour has actually declined. This trend continued until 2001, when it fell by around 2 percentage points. Breuss (2003) notice that although it is expected that increasing competition within the Single Market to lead to labour productivity rise, in the case of Austria (and Sweden and Finland) this actually decline from 2.4% annual average for 1988-1994 to 1.8% between 1995 and 2001 (Table 1.2). However, in a more recent study Breuss (cited in Ragacs and Schneider, 2007) consider that the increased competition and the access to research and development programmes following entry into the EU Single Market helped to improve the Austrian total factor productivity (TFP). Moreover, it contributed to the reduction of the TFP per capita gap present between Austria and Germany prior to accession.

Table 1.4 Labour productivity as GDP (in PPS) per person employed (EU27=100)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Austria	121.7	122.4	121.8	123	118	119	120.2	120.6	120.4	120.1
EU25	104.9	104.9	104.9	104.8	104.6	104.5	104.4	104.2	104	103.8
EU15	114.9	114.6	113.8	113.2	112.5	111.9	111.4	111	110.7	110.4

Source: Eurostat

Table 1.5 Labour productivity as GDP (in PPS) per hour worked (EU15=100)

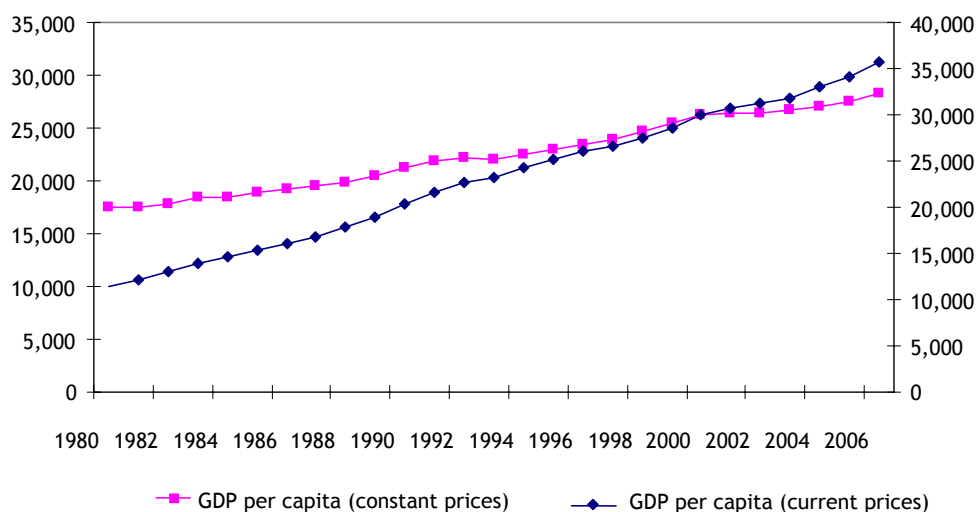
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
EU27	...	...	...	...	...	...	...	86.8	87.2	87.5	87.6	87.8
EU25	...	...	...	...	...	90.1	90.7	91.1	91.3	91.6	91.5	91.5
Austria	102.7	101.7	99.0	99.7	101.1	102	98.1	98.5	99.2	99.9	99.9	99.4

⁸ Labour productivity expressed as GDP per hour worked eliminates the differences between the full-time and part-time workforce, whereas GDP per person employed does not make distinguish between these components of the workforce (Eurostat yearbook 2006-07).

Source: Eurostat

The relatively strong economic performance of Austria, before and after accession to the EU, is reflected by the level of economic welfare measured as GDP per capita. Figure 1.5 shows the evolution of the Austrian GDP per person, between 1980 and 2006, emphasising an acceding trend, no matter if the indicator is expressed in constant or current prices.

Figure 1.5 GDP per capita, Austria, 1980-2006



Source: based on IMF database; Note: GDP per capita at constant and current prices refers to national currency

Previous research (*e.g.* Nauschnigg, 2005) also shows that, when internationally compared, the Austrian GDP per person (expressed in PPS) is well above the EU15 average and it has maintained at a higher level even and after the entry into the EU. For example, during the 1980s the domestic GDP per capita was 6% higher. After the first two years following accession this share has increased to 15% (EU15=100). In contrary, for the same period Germany's GDP per person dropped from 115% to 107%, and has continued to fall to around 98% of the EU15 average in 2005 (Nauschnigg, 2005). Indeed, nor the Austrian indicator excelled, and although it steadily declined from 2001 it was still 10% higher than the EU15 average in 2005. The situation looks even more favourable when the comparison is extended to an enlarged EU (*e.g.* the Austrian GDP per person was at around 124% as compared with a 108% for EU15 and just 96% for EU27 in 2006 [Table 1.6]). With a GDP per inhabitant of €30,200, Austria ranked four in the EU27 (after Luxembourg, Ireland and the Netherlands) and seven within the OECD member states (Statistik Austria, 2007) in 2006. An Austrian consumer spends on average €22,300 per annum as opposed to €19,000 for the EU25 average (Statistik Austria, 2007), being the second country after Luxembourg in terms of consumer spending.

Table 1.6 GDP per capita in PPS (EU25=100)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006

Austria	126.4	124.4	123.4	124.8	125.4	121.9	119.9	123.2	123.4	122.7	124.1
EU15	108.7	110.2	110.1	109.9	109.6	109.5	109.2	108.9	108.6	108.2	107.8
EU27	94	94.1	94.2	94.1	94.2	94.3	94.5	95.8	95.9	96.1	96.2

Source: http://epp.eurostat.ec.europa.eu/potal/page?_pageid=1996,39140985&dad=portal (accessed 30/07/2007)

As with most developed countries, the Austrian economy is dominated by the tertiary sector. This has started to increase in importance from the 1970s, and currently accounts for almost two thirds of the gross value added (GVA) and the total labour force. It is estimated that in the last two decades services have risen on average by 5% per year, with most people employed in sales, public service, health and education (Statistik Austria, 2007). In contrast, the primary and secondary sectors have declined over the years (*e.g.* if in 1960 industrial production and agriculture and forestry represented 47% and 11% of the GVA, these shares were reduced to 31% and just 2% by 2006). As expected, the number of people employed within these sectors has also decreased, and presently only one in four people works in the secondary sector and just one in 20 is employed in agriculture and forestry (Statistik Austria, 2007). Within the secondary sector, the manufacturing and construction are predominant, and both branches have thrived from participation in the Single Market. These are considered somewhat traditional pillars of the national economy, as they employ a large number of production labour force (*e.g.* around 870,000 people in 2005) and generate a significant annual turnover (*e.g.* €160 billion in 2005) (Statistik Austria, 2007). Manufacturing, particularly car industry, has recorded some of the highest growth rates since EU membership (*e.g.* an average of 7% per year) (Pointer, 2005). Additionally, tourism industry plays a very significant role within the economy as a whole. Its contribution accounts for 6% of the GDP and almost 8% of the total potential full time jobs, in 2006 (Statistik Austria, 2007). With some 20 million international tourists visiting Austria in 2006, the country ranked as the ninth most attractive destination in absolute terms (and only large countries are ranked higher).⁹

Structural changes, following accession to the EU, have been less severe in Austria as compared to Sweden and Finland, which experienced a particularly growing specialisation in the industrial sector (*e.g.* electronics accounts for more than 30% of total industry). This makes the two economies more vulnerable and exposed to higher risks, as potential progress becomes “highly dependent on demand for a narrowly defined group of goods” (Pointer, 2005, p. 94).

A specific characteristic of the Austrian economy is the significant predominance of small and medium enterprises. In 2005, the number of small and medium-sized¹⁰ Austrian firms represented 92.3% of total number of firms and of 40.4% of total employees, as opposed to 67.8% and 17.6% in Germany (Ragacs and Schneider, 2005). Moreover, more than 75% of the Austrian industrial and construction enterprises have less than 10 employees and only 1% of enterprises employ more than 250 people (Statistik Austria, 2007). Breuss (2003) highlights that none of the largest 500 multi-national companies in the world¹¹ is

⁹ http://www.unwto.org/facts/eng/pdf/barometer/unwto_barom07_2_en.pdf

¹⁰ Firm size is defined in accordance with the annual sales as follows: less than €10 million: small firm; between €10 and €50 million: medium-sized, and above €50 million: large size.

¹¹ This is defined in accordance with their market value.

represented in Austria. Hence, the author stresses that the structural composition of the economy has an impact on the global competitiveness of the country. The most recent Global Competitiveness Report¹² places Austria on the 15th position (with a score of 5.23) behind other EU member states such as Sweden (ranks 4), Germany (ranks 5) and Finland (ranks 6). This is, however, an improvement as compared with previous years when Austria ranked 18th. Although the report highlights the importance of ‘goods market efficiency’ and ‘business sophistication’ (for which Austria ranks 5th) it also considers that ‘restrictive labour regulations’, an ‘inadequate educated labour force’ and ‘tax regulation’ are the most problematic factors for the Austrian business environment.

One of the less disputed consequences of Austria’s integration into the EU is the benefits of trade liberalisation (*e.g.* Mooslechner, 2005; Fidrmuc, 2005, Breuss, 2003). Fidrmuc (2005) notices that export access to a wider market was essential for a small economy such as Austria. Given its geographical position and that its main trading partners (Germany and Italy) were members of the Community, Austria tried, from an early stage to initiate and maintain intensive trade relationship with the EU. Additionally, Austria joined EFTA in 1960. However, although the country signed a free trade bilateral agreement in 1972 with the EU, it was not until 1984 that the tariff barriers on non-agricultural products were removed. As a result, the structure of Austrian trade was affected to a lesser or bigger extent by these various agreements. For example, the entry into EFTA led to a twofold increase of Austrian exports share with EFTA countries (from 9% in 1960 to 18% in 1972) and a decline of the exports share with the Community member states (Fidrmuc, 2005). The endorsement of the bilateral agreement with the EU changed the trend, and by 1994, the Austrian exports with the remaining EFTA members represented only 12%; simultaneously, the country increased its market share in the intra-EU15 trade, from less than 2% in 1973 to almost 3% towards the end of the 1980s (*ibid*). Accession to the EU brought even more changes to the Austrian trade. Fidrmuc (2005) estimates that, between 1995 and 2002, trade with the EU grew on average by 2.6% per year. However, Breuss (2000) argues that entry into the EU did not necessarily lead to an improvement of Austrian market position, but it triggered a reduction of its trade deficit. This is attributed to the opening of the CEECs markets, particularly after 1995, of which Austria took full advantages. Hence, the share of Austrian’s exports with the CEECs has significantly increased from 11% in 1995 to 17% in 2006 (Table 1.7). However, over the years, its main trading partners remained Germany and Italy (Table 1.8).

Table 1.7 External Trade, Austria, 1988-2006, (% shares)

	Imports			Exports			Imports	Exports
	1988-1994	1995-2001	Change % points	1988-1994	1995-2001	Change % points			2006
EU14	70.2	68.9	-1.3	67.2	63	-4.3	60*	51.2*
CEECs	5.3	8.8	3.6	10.4	14.6	4.2	12	17.2
EFTA4	4.5	3.7	-0.8	7.2	6.3	0.9	4.0	5.1
NAFTA	4.5	5.7	1.2	4.1	5.0	0.9	3.8	7.0

¹² Issued by the World Economic Forum, <http://www.gcr.weforum.org/>. It includes 131 economies worldwide.

Source: Breuss (2003) and www.statistik.at; Note: * it refers to the Eurozone countries; EFTA4 - Iceland, Norway, Liechtenstein and Switzerland; NAFTA (North American Free Trade Agreement) - USA, Canada and Mexico

Table 1.8 Austria's Main Trading Partners (%)

	Pre-integration period (1960-1972)	Free trade agreement (1972-1994)	EU membership (1995-2002)
Germany	26.8	32.1	34.9
Italy	12.2	9.4	8.5
Sweden and Finland	4.3	3.3	1.8
Switzerland	8.4	7.4	5.4
Norway	1.1	0.9	0.5
EU10	16.0	16.9	17.3
Other countries	32.3	30.9	32.1

Source: based on Fidrmuc (2005)

Accession to the EU has also made Austria a more attractive location for foreign direct investment (FDI). Prior to the entry into the EU inward and particularly outward investment flows were very low. For example, until 1989, direct investment in Austria represented less than 0.5% of its GDP (Breuss, 2000). A number of factors may explain the Austrian lack of attractiveness to foreign investors (*e.g.* the state involvement on a large part of the economy, a “thin market on the stock exchange”, its geographical location at the border of the Iron Curtain and not to a lesser extent the reticence regarding foreign ownership [Dell'mour, no date]). The fall of the Berlin Wall and the application for EU membership opened new perspectives in this respect. Hence, its location has become an advantage. Thus, by 1994, the FDI inflow and outflow rose gradually to 1.1% of the GDP and 0.6%, respectively. Accession has accelerated both trends, hence by the end of 1998, these shares went up to 2.8% and 1.4% of the GDP (Breuss, 2000). Moreover, in recent years, Austrian investment abroad has exceeded its inflows, *e.g.* between 2001 and 2005, the annual average outward FDI stocks accounted for €44.5 billion as opposed to around €38 billion FDI inward (Table 1.9).

Table 1.9 also shows that almost three quarters of the FDI inflows and outflows have as destination the EU25 and just a small proportion of investments have US origins. It is also clear that, prior and after EU membership, bordering Germany remains its main foreign investor partner. Almost 40% of total Austrian FDI inflow comes from Germany and some 16% of Austria's outflow is invested in this country. This maybe explained not only by their vicinity, but also by a common language and historical relationships (Dell'mour, no date). In Central Europe, Austria has also been particularly attracted (even before their accession to the EU) by other two neighbours, mainly Czech Republic and Hungary. The second wave of enlargement towards East and potential new comers into the EU has also captured Austria's attention for investment. Currently, Austria is the main investor in Romania, Bulgaria, Croatia, Bosnia and Serbia and Montenegro, and ranks third in Ukraine and Albania (Heizer, 2006; Dell'mour, no date). In 2006, Austria's FDI in CEECs accounted for almost €22 billion and some 12,000 subsidiaries and joint-ventures in these countries were of Austrian origins. More than 220,000 people were employed in Austrian companies in the

CEECs in 2005¹³. Most of the Austrian investments in these countries are concentrated on banking, insurance, energy (e.g. fuel and word processing) and transport infrastructure. By far, Romania is one of its most important partners. Some €7 billion have already been invested in this country and 120,000 Romanians work for Austrian companies (Heizeir, 2006).

Table 1.9 Austrian Inflow and Outflow - FDI Stocks by origins (annual average €million)

Outflow	1990-94	1995-00	2001-05	Inflow	1990-94	1995-00	2001-05
EU25	4,193	11,075	28,515	EU25	5,261	15,044	27,620
EU15	2,859	6,756	15,566	EU15	5,209	14,908	27,494
CEEC19	1,360	4,553	17,133	CEEC19	133	265	
Germany	1,199	2,648	6,928	Germany	3,127	8,981	15,011
Netherlands	429	936	2,798	Netherlands	786	1,615	3,019
EFTA2	808	1,028	2,814	EFTA 2	1,438	2,509	2,899
Czech Rep	243	1,175	3,875				
Hungary	877	1,500	3,460				
USA	263	1,142	2,153	USA	869	1,547	3,949
Total	5,696	15,426	44,482	Total	9,975	18,690	37,952

Source: own calculations based on National Austrian Bank data 14; EFTA2 - Switzerland and Liechtenstein; CEEC-19: Albania, Bosnia-Herzegovina, Bulgaria, Estonia, Croatia, Latvia, Lithuania, Moldavia, FYROM, Poland, Czech Republic, Romania, Russia, Serbia-Montenegro, Slovak Republic, Slovenia, Ukraine, Hungary, Belarus

Although not all macroeconomic indicators have performed as expected following Austria entry into the EU, overall, the economic development has been largely positive. Nevertheless, given its privileged economic position and its relationship with the EU and the international world prior to accession it is rather difficult to assess with accuracy what are the specific effects of the EU membership. Some authors (*e.g.* Mooslechner, 2005) argue that the assessment of the Austrian economic progress post-accession depends on “how the indicators are weighted”, hence it varies between “largely unchanged and even slightly improved” (p. 37). According to Mooslechner (2005) it is mostly the Austrian institutional framework that has fundamentally been changed as a result of the EU entry. It is, however, little doubt, that accession to the EU, and the entrance on its Internal Market and the European Monetary Union, has brought to a lesser or bigger extent various changes (*e.g.* in fiscal and budget policies, , on the labour market, price convergences and competition). Moreover, after the fall of the Berlin Wall its geographical location has become a strength leading to the transformation of the country in a hub for regional trade and foreign investors. Its particular openness towards business with the new member states makes Austria one of the major beneficiaries of EU enlargement. Since accession, Austria has remained a frontrunner, being on of the most successful member states, well above some long-established member states. Being one of the richest EU member states, Austria is also a net provider to the EU budget, although its contribution has slightly decreased from 0.5% of the GDP in 1995 to around 0.2% of its GDP in 2003 (Pointner, 2005).

¹³ http://geo.international.gc.ca/canada-europa/austria/right_nav/tradewithaus-en.asp

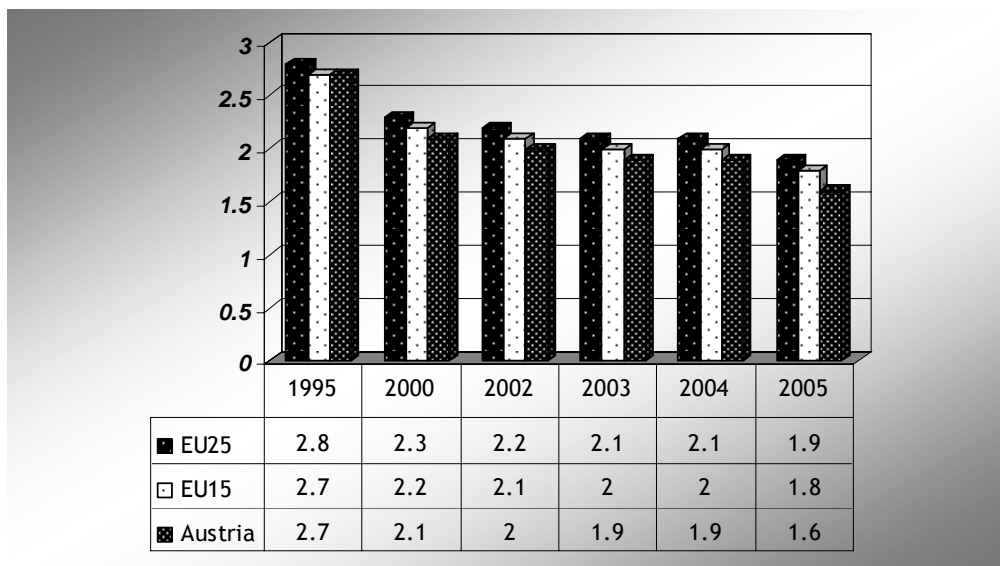
¹⁴ <http://www.oenb.at/isaweb/report.do?lang=EN&report=95.0.2>

2 Austrian Agriculture and Rural Development

More than 85% of Austria’s territory is dedicated to agriculture (39.6%) and forestry (46.8%). Although, as in most advanced economies, the sector has declined in terms of its contribution to the GDP and labour force, it remained the backbone of the rural community playing an indispensable role in the conservation of natural landscape and environment and the maintenance of culture and traditions (Statistik Austria, 2007). Moreover, it is its social and political significance that gives this sector a special status, with most Austrians vehemently against biotechnology (*e.g.* genetically modified organisms) but leaders in organic farming (Tymochko, 2004). Currently, agriculture and forestry supplies less than 2% of total GVA and employs 5% of the labour force (Figure 2.1). Statistik Austria (2007) estimates that the sector still contributes around €7 billion to the economy on an annual basis.

Prior to accession, Austrian agriculture was highly protected and supported, with prices and farm incomes higher than the EU average (Breuss, 2000). Accession implied an alignment to the EU levels which triggered a decline of most Austrian agricultural prices. Thus, in the first year following accession, prices for agricultural products plunged by almost a quarter, although the impact on consumer food prices was much smaller at 3.2% reduction on average (Breuss, 2000). The Producer Support Estimate (PSE) dropped from 47%, between 1991 and 1993, to 44% between 1997 and 1999.

Figure 2.1 Share of Agriculture and Forestry of total GVA at basic prices



Source: based on CEC (2007b), Eurostat Pocketbooks, Agricultural Statistics 1995-2005

2.1 Land Use

Austria’s geography is dominated by the Alps and a large part of its territory (particularly in the west and south) is mountainous. Thus, only 17% (or around 1.4 million hectares) of total land is arable, whereas permanent pastures and meadows account for almost a quarter. By 2005, total Utilised Agricultural Area (UAA) accounted for 39% of the total

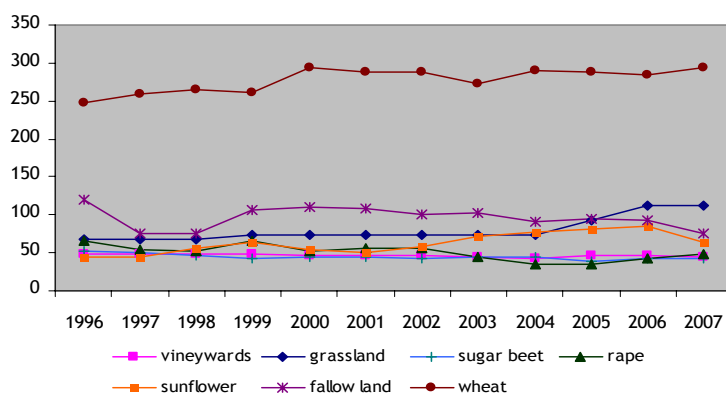
Austrian area. However, over the last four decades, there is a steadily declining trend of agricultural land (particular land allocated for permanent crops) in favour of forest and other land (Table 2.1). Most of the arable land (57%) is used for cereals, particularly wheat, and grassland. Following the entry into the EU there is a clear increase of some land categories. For example between 1996 and 2006, the area under wheat went up by almost 20%, and grassland and sunflower have almost doubled (Figure 2.2). For the same period, arable land allocated to rape seed and sugar beet has gradually declined, whereas vineyards remained almost constant. Most of the rape seed production is used as raw material for biofuel (and cooking oil) because the Austrian government assumed for long that it has environmental and social benefits (Statistik Austria, 2007).

Table 2.1 Evolution of Agricultural and Forestry Land, Austria, 1970-2005 (000 ha)

	1970	1980	1990	1994	1995	2000	2005	% Change 2005/1970	% Change 2005/1994
Agricultural land (UAA)	3,896	3,675	3,500	3,450	3,432	3,390	3,263	-16.2	-5.4
- arable	1,586	1,536	1,426	1,423	1,414	1,399	1,387	-12.5	-2.5
- permanent crops	95	99	79	76	78	71	66	-30.5	-13.2
- meadows & pastures	2,215	2,040	1,995	1,951	1,940	1,920	1,810	-18.3	-7.2
Forest	...	...	3,776	3,800	3,807	3,838	3,862	2.3*	1.6
Other land	...	...	969	994.2	1,000.6	1,017	1,120	15.6*	12.7
Total land area	8,245	8,245	8,245	8,245	8,245	8,245	8,245	-	-

Source: FAO database, <http://faostat.fao.org> (accessed February 2008); * % change 2005/1990

Figure 2.2 Evolution of arable land categories, Austria, 1996-2007 (000 ha)



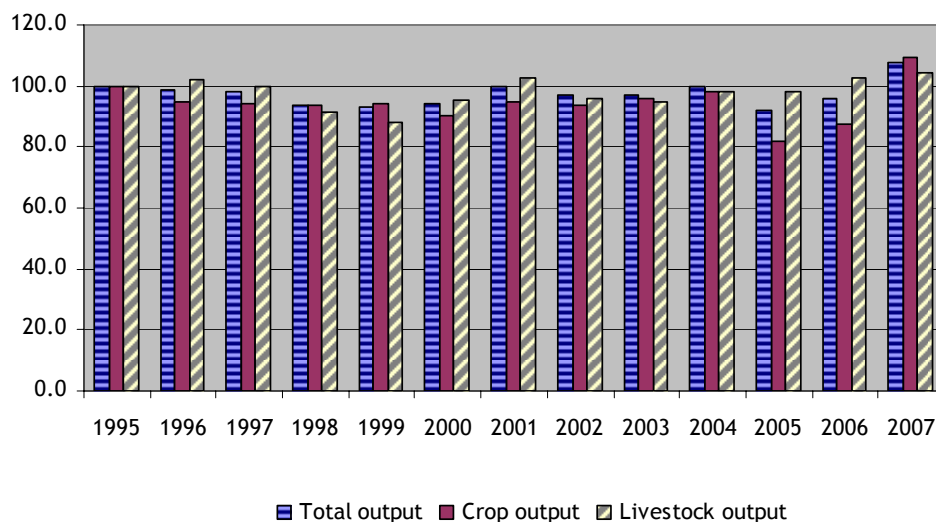
Source: based on Eurostat

2.2 Agricultural Output

Accession to the EU did not necessarily bring immediate benefits to the Austrian agricultural sector. Agricultural output has actually declined in real terms, particularly in the first five years following accession. It then recovered slowly between 2001 and 2004, followed again by a significant fall in 2005. It was not until very recent (2007) that, for

the first time since accession, the Austrian gross agricultural output was above (by almost 8 percentage points) the 1995 level (Figure 2.3).

Figure 2.3 Agricultural Output Index, Austria (1995=100)



Source: authors' estimation, based on <http://www.statistik.at>

Given its size and topography, Austria belongs to the group of small EU agricultural producers (in value terms); its agricultural industry accounted for only 1.8% of total value output of EU25 in 2005. This is also reflected by the contribution of its two main commodities (i.e. cereals and milk, to the EU production [Table 2.2]).

Table 2.2 Austria's Contribution to the EU cereals and milk production

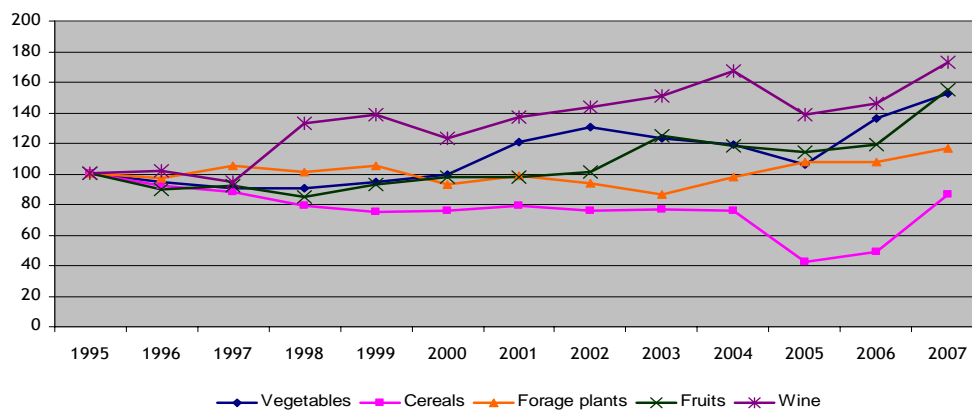
	Cereals (million tonnes)			Milk (million tonnes)		
	Austria	EU15	EU25	Austria	EU15	EU25
1995-1998	4.7	200.3	254.2	3.0	121.2	143.6
1999-2002	4.7	209.1	260.8	3.2	121.5	143.6
2003-2005	4.8	206.9	263.2	3.2	121.7	143.2
	% of EU25			% of EU25		
1995-1998	1.9	78.8	100	2.1	84.4	100
1999-2002	1.8	80.2	100	2.3	84.6	100
2003-2005	1.8	78.6	100	2.2	85.0	100

Source: CEC (2007a) Agricultural Statistics, 1995-2005, Eurostat Pocketbooks, Luxembourg: Office for Official Publications of the European Communities

In terms of output structure there has been little change, with a slight variation between crop and livestock output over the years. However, when analysing separately various crops and livestock output, some differences are noticeable (Figure 2.4). For example, between 1995 and 2005 there is a significant fall (in real terms) in cereals output as opposed to most other crops such as wine, fruits and vegetables. For livestock products, the development of output is very volatile with ups and downs for most products. Pig and

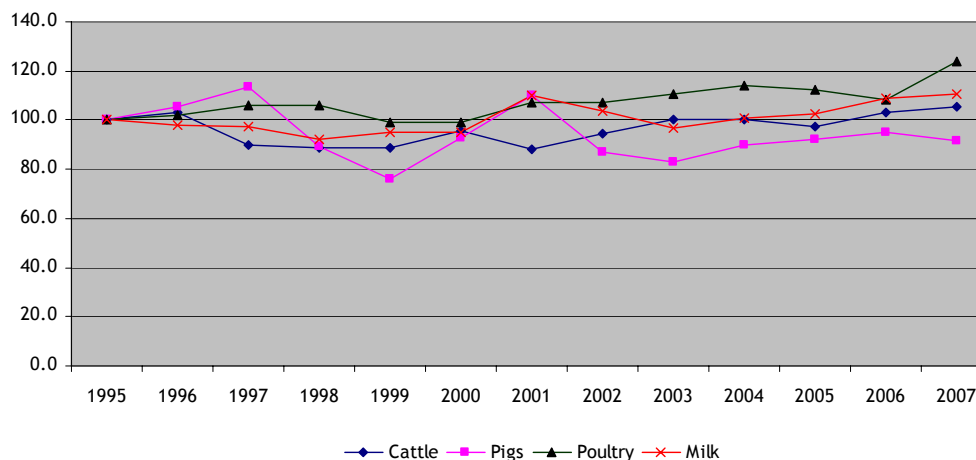
cattle seem to be the most affected, although a recovery of cattle output is noticeable for 2006 and 2007 (Figure 2.5).

Figure 2.4 Evolution of Crops Output Index, Austria, 1995-2007, (1995=100)



Source: authors' s estimation, based on <http://www.statistik.at>

Figure 2.5 Evolution of Livestock Output Index, Austria, 1995-2007, (1995=100)



Source: authors' s estimation, based on <http://www.statistik.at>

The trends shown by Figure 2.4 and Figure 2.5 are also reflected by the output breakdown between the most important crop and livestock products, between 1995 and 2007 (Table 2.3). Cereals, forage plants, fruits, wine, cattle, pigs and milk account for more than 70% of total agricultural output. However, milk remains, for most of the period, the biggest component of Austrian agricultural output, contributing 14% to 16% of its total value. For the decade following accession, the importance of cereals (mainly wheat, barley and maize) has halved, whereas wine output value recovered. Whereas the sharp drop in cereal production in 2005 and 2006 was mainly due to weather conditions, the long-term increase

of wine production is mainly due to the successful recovery of the sector after the shock experienced in 1985 (the ‘glycol scandal’).¹⁵

Table 2.3 Composition of Gross Agricultural Output Value, Austria, 1995-2007 (%)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Cereals	16.1	15.1	14.5	13.6	13.0	12.9	12.8	12.6	12.7	12.3	7.4	8.2	13.0
Forage plants	8.5	8.5	9.2	9.2	9.7	8.4	8.5	8.3	7.7	8.4	10.0	9.6	9.3
Fruits	4.3	3.9	4.1	3.9	4.3	4.5	4.2	4.5	5.5	5.1	5.4	5.3	6.2
Wine	4.8	5.0	4.6	6.8	7.2	6.3	6.6	7.1	7.5	8.1	7.3	7.3	7.7
Cattle	13.3	13.9	12.2	12.6	12.7	13.5	11.7	12.9	13.7	13.3	14.1	14.2	13.0
Pigs	12.4	13.2	14.4	11.8	10.1	12.2	13.6	11.1	10.6	11.2	12.5	12.3	10.5
Milk	14.4	14.3	14.3	14.1	14.7	14.5	15.8	15.4	14.4	14.5	16.1	16.3	14.8

Source: own estimation based on <http://www.statistik.at>

2.3 Farm Structure

The geography and topography of the country certainly influence its farming structure. Given that only 17% of total land is arable the number of crop farms is much smaller than those specialised in livestock or wood/forestry production. Moreover, this also “motivates highly intensive forms of crop production“ in contrast to an extensive livestock production system, internationally recognised for its high environmental-friendly standards (Tymochko, 2004; Groier 1993 and Hovorka, 1998 cited in Groier and Loibl, 2000).

Structural changes that affected the economy as a whole prior accession have also affected the agricultural sector, leading to the specialisation and concentration of agricultural production on larger agricultural and forestry holdings. The number of Austrian agricultural and forestry holdings declined, between 1970 and 1990, by almost a quarter, from around 370,000 to 282,000. The descending trend continued steadily and five years later, in 1995, the number dropped by another 15%, reaching 239,099.¹⁶ Entry into the EU accelerated this downward trend, particularly from 1999 onwards, and by 2005 the total number of Austrian agricultural and forestry holdings declined by a further 21% (or 49,508); hence around one in five Austrian holdings were forced to leave the sector or merge their holding between 1995 and 2005 (Table 2.3).

Table 2.4 Agricultural and forestry holdings and their total area, Austria, 1990-2005

Category (ha)	Number of holdings				% change 2005/1995	Area (UAA and Forest) (ha)			
	1990	1995	1999	2005		1990	1995	1999	2005
without area	3,910	2,407	2,284	291	-87.9	-	-	-	-

¹⁵ The Austrian and South-Tyrolean Diethylene Glycol Scandal of 1985 (this substance was added to the wine) destroyed much of its market within a matter of weeks. This was the cause for a major restructuring of the production processes and building up of capabilities to produce high quality wines which are increasingly successfully exported again.

¹⁶ Based on data provided by Statistik Austria, <http://www.statistik.at>

< 5	97,480	66,233	52,663	39,664	-40.1	243,158	178,508	147,649	116,713
5 - <10	49,063	43,884	40,538	34,108	-22.3	352,386	316,310	292,462	245,710
10- < 20	54,951	49,369	45,704	39,376	-20.2	800,482	720,404	667,032	579,078
20 - < 30	33,414	30,992	29,079	25,699	-17.1	817,199	760,948	714,975	630,480
30 - < 50	26,047	27,219	27,021	26,363	-3.1	984,265	1,034,929	1,031,563	1,011,977
50 - < 100	10,566	12,078	13,032	16,073	33.1	691,711	791,682	858,195	1,066,590
100 - <200	3,431	3,706	3,916	4,752	28.2	478,491	514,685	541,077	646,763
200 and above	3,048	3,211	3,271	3,265	1.7	3,187,123	3,213,741	3,265,662	3,271,943
Total	281,910	239,099	217,508	189,591	-20.7	7,554,815	7,531,207	7,518,615	7,569,254
Average size (ha)	26.8	31.5	34.6	39.9	26.7	-	-	-	-

Source: Statistik Austria at <http://www.statistik.at>; Note: minimum farm size considered: 1990 - 1 ha total area; 1995-2005 - 1 ha UAA or 3 ha utilised forestry area. Hence, comparison with 1990 need to be cautious as the survey methodology is different.

Table 2.4 also shows that there has been a significant decline in the number of small-size farm categories and an increase in the number of larger farms (50 hectares and above). In 1995, the proportion of farms with less than 20 hectares accounted for 46% of total number of holdings. By 2005, this declined to 31%. The biggest fall was recorded for farms with less than 5 ha. These less economically viable farms dropped by 11 percentage points during the same period. Moreover, the distribution of land is very uneven across farm sizes with farms of 200 hectares and more managing most of the land (e.g. in 2005, these farms represented only 2% of the total number of holdings but administered almost half [43%] of the total area).

Farm distribution varies also across Austria's regions, and as expected, the topography of the region influences the development of the agricultural sector. The country is divided at NUTS 2 level into nine federal provinces or Bundesländer: Burgenland, Niederösterreich (Lower Austria), Kärnten (Carinthia) Steiermark (Styria), Oberösterreich (Upper Austria), Salzburg, Tirol (Tyrol), Vorarlberg and Wien (Vienna). More than half (67%) of total holdings are located in three regions (e.g. Lower Austria [24.3%], Styria [23.1%] and Upper Austria [19.3%], where climate and soil conditions are more favourable for agriculture. These three regions also account for the largest share of agricultural and forest land (56%). There is also a large variation of the average sizes of holdings across these regions (from 25 hectares in Burgenland (lowlands) to 73 hectares in the mountainous Tyrol (due to alpine pastures and forests).

Table 2.5 Distribution of agricultural and forestry holdings by regions, 1990-2005 (%)

Länder	Number of holdings				Area (UAA and Forest) (% of ha)			
	1990	1995	1999	2005	1990	1995	1999	2005
Burgenland	9.5	8.4	7.4	6.2	4.3	4.2	4.1	3.8
Carinthia	9.3	9.3	9.7	10.2	11.4	11.3	11.3	11.8
Lower Austria	25.3	25.4	25.1	24.3	22.3	22.2	22.4	22.2
Upper Austria	19.3	19.1	19.2	19.3	14.2	14.3	14.2	14.7

Salzburg	4.4	4.7	4.9	5.3	8.9	9.0	9.1	8.9
Styria	21.5	22.0	22.3	23.1	19.9	19.9	20.0	19.2
Tyrol	7.7	8.0	8.4	8.9	15.8	15.8	15.8	16.2
Vorarlberg	2.5	2.5	2.5	2.5	2.9	2.8	2.8	3.0
Vienna	0.5	0.4	0.4	0.3	0.4	0.4	0.3	0.3
Austria	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: based on data provided by Statistik Austria (Farm structure survey compiled on 15/01/07) at <http://www.statistik.at>

The majority of farms are located in Less Favoured Areas (LFAs). In 2005, out of the total of almost 190,000 holdings almost three quarters (138,106) were in LFAs. As expected, most of these holdings (74%) are in the mountain areas. In just over a decade since accession to the EU, the number of LFA farms has decreased by 16%, but their average size rose by 9%, from 44 hectares in 1995 to around 53 hectares in 2005. Overall, mountain farms account for 38% of the total number of holdings, with an average size of 32 hectares, in 2005¹⁷. Groier and Loibl (2000) argue that although an important share of Austrian farms face “unfavourable working conditions, yet at the same time [they enjoy] the positive economic effects of pluriactivity (direct marketing, tourism, etc.) derived from the high environmental quality of alpine landscapes” (p. 169).

Most of the Austrian agricultural and forestry holdings (95.6%) are of sole ownership, covering 62% of total cultivated area (Table 2.6). The rest are owned by legal entities (3.6%) and group of holders (0.8%), accounting for 34.1% and 3.9% of total cultivated area in 2005. An important characteristic of the sole ownership farms, which differ somehow to other EU member states, is the predominant number of part-time farms prior and after accession. Over a decade since EU accession, there is a clear declining trend in the number of both full-time and part-time holdings. But a more recent comparison (2005 to 2003) shows that the number of part-time farms¹⁸ has actually increased by almost 5% (<http://www.statistik.at>). This is also the case for legal entities and associations, which have increased by 26% and 4% respectively between 2003 and 2005. The legal status influences undoubtedly the average size of farms. Whereas sole ownership farms have an average size varying between 15.7 ha for a part-time holding and 40.3 ha for a full-time farm, an average legal entity/association owns around 381/203 ha.

Table 2.6 Agricultural and forestry holdings by legal status, Austria, 1990-2005

Category	Number of holdings				% change 2005/1995	Area (ha)			
	1990	1995	1999	2005		1990	1995	1999	2005
Sole ownership of which:									
Full-time	272,717	231,125	209,710	181,340	-8.2	4,907,660	4,762,033	4,685,648	4,686,967
Part-time	106,511	81,171	80,215	74,504	-28.7	3,250,519	2,863,384	2,927,921	3,004,556
	166,206	149,954	129,495	106,836		1,657,141	1,898,649	1,757,727	1,682,411

¹⁷ Own estimation based on data provided by Statistik Austria, <http://www.statistik.at>

¹⁸ Farmers spend more than half of their working time on off-farm activities

Legal entities & Associations	9,193	7,974	7,798	8,251	3.4	2,647,156	2,769,171	2,832,968	2,888,2288
Total	281,910	239,099	217,508	189,591	-20.7	7,554,815	7,531,207	7,518,615	7,569,254

Source: Statistik Austria at <http://www.statistik.at>

Austria's agricultural sector is also characterised by a relatively high number of organic farms. Statistik Austria reports that in 2005, some 20,343 (or 11.7% of total) farms were registered as organic, cultivating 370,303 ha (or 12% of total UAA). The average size of an organic farm was 18.2 hectares, and the majority of these farms (88%) were specialised in livestock (mainly suckler cows and dairy cows). Data for 2003 allows some EU comparison. For example, the proportion of Austrian organic-farmed area was well above (9.7% of UAA) the EU25 and EU15 average levels of 3.6% of UAA and 4%, respectively. Thus, Austria ranked first amongst the EU member states along this criterion (CEC, 2005). The country came only second, after Italy, in terms of number of organic farms (19,000). The shift towards organic farming has started at least half a decade prior accession to the EU, when considerable government subsidies and incentives programmes were made available to encourage these methods (Vogl and Hess, 1999).¹⁹ Thus, by 1992, around 2,000 farms were practicing organic methods (ibid), and by 1993, some 4% of total UAA was considered as organic land (CEC, 2005). Although the number of Austrian organic holdings decreased slightly between 1999 and 2003, (ibid), recent national official estimates show that between 2003 and 2005, the number of organic farms has increased by 7%. Austria also accounts for 14% of total EU15 organic area designated for grassland and fodder crops and 11% of total EU15 organically certified livestock (2003 data). Most of the organic farms receive payments through the agri-environmental schemes/programmes, with organic farming being one of the most important components of the ÖPUL²⁰ (Darnhofer, 2005).

The analysis of recent data on farm structure using the European Size Unit²¹ yields also some interesting results. By the end of 2005, the Farm Structure Survey identified some 137,000 (or 80.3% of total) agricultural holdings with an economic size of at least 1 ESU (CEC, 2007). These accounts for almost 2.7 million ha of agricultural area which leads to an average size of 19.6 hectares per holding. Among these farms almost half (45%) have an economic size of less than 8 ESU and only 11% are above 40 ESU, which reinforces the small-size scale of Austrian farms (Table 2.6). Over a decade since accession, however, the total Standard Gross Margin (SGM) generated by Austrian agricultural holdings increased only by 2% from 2,462,000 ESU in 1995 to 2,511,800 ESU in 2005. Over the same

¹⁹ In 1989, the government of three federal provinces (Upper Austria, Lower Austria and Styria) introduced subsidies for farmers to convert to organic production.

²⁰ This is the German acronym for the "Austrian Programme for the promotion of agricultural production methods compatible with the requirements of the protection of environment, extensive production and the maintenance of the countryside".

²¹ A European Size Unit (ESU) is a measure of the economic size of a farm business based on the gross margin imputed from standard coefficients for each commodity on the farm. The application of these standard coefficients results in the Standard Gross Margin (SGM) for a farm or group of farms. By dividing the SGM by 1,200 one arrives at the corresponding ESU value. 1 ESU = €1,200.

period, the SGM per holding has increased by 65%, from €13,320 in 1995 to €22,000 in 2005 (based on CEC, 2007 and CEC, 2000).

Table 2.7 Distribution of agricultural holdings by economic size, Austria, 2005 (%)

Category	Agricultural Area (ha)				All farms
	less than 5	5-<20	20-<50	50 and above	
1 - < 8 ESU	84.2	49.6	8.0	5.1	44.6
8 - < 16 ESU	9.2	26.8	18.6	6.4	19.6
16 - < 40 ESU	5.2	19.4	51.5	34.4	24.8
40 - < 100 ESU	1.1	3.7	20.2	45.2	9.7
100 ESU and above	0.3	0.5	1.8	8.9	1.3
Total	100	100	100	100	100
Total holdings	30,700	64,700	32,900	8,700	137,000

Source: CEC (2007c). Statistics in Focus, Farm Structure in Austria -2005, Agriculture and Fisheries

The distribution of agricultural holdings by farm type reveals the importance of livestock business. The Farm Structure Survey of 2005 estimates that 47% of all Austrian farms were specialised in livestock (mainly dairy cows and cattle rearing and fattening). Only 12.2% and 8.7% of all agricultural farms were specialised in crops (cereals, oil seed and protein crops) and vineyard. However, over a decade following the entry into the EU, there are clear declining trends of the national livestock herds and number of holdings, and implicitly an increase in the average farm size for all species. The largest drop in the number of animals was recorded by the dairy cows' herd, which was reduced by almost a quarter between 1995 and 2005. As the number of holdings also decreased, but more rapidly (by 40%), the average size of a dairy cow farm rose from 8 to 10 ha (25% increase over a period of ten years). The most affected were pig holdings, which halved over this period. This led to significant intensification of production with the average farm size increasing by almost 70% from 35 pigs/farm in 1995 to 59 pigs/farm in 2005 (Table 2.7). The number of specialised crop farms has also drastically declined over the same period (from 34,000 in 1995 to around 17,000 in 2005).

Table 2.8 Livestock Number and Livestock Holdings, Austria, 1995, 1999 and 2005

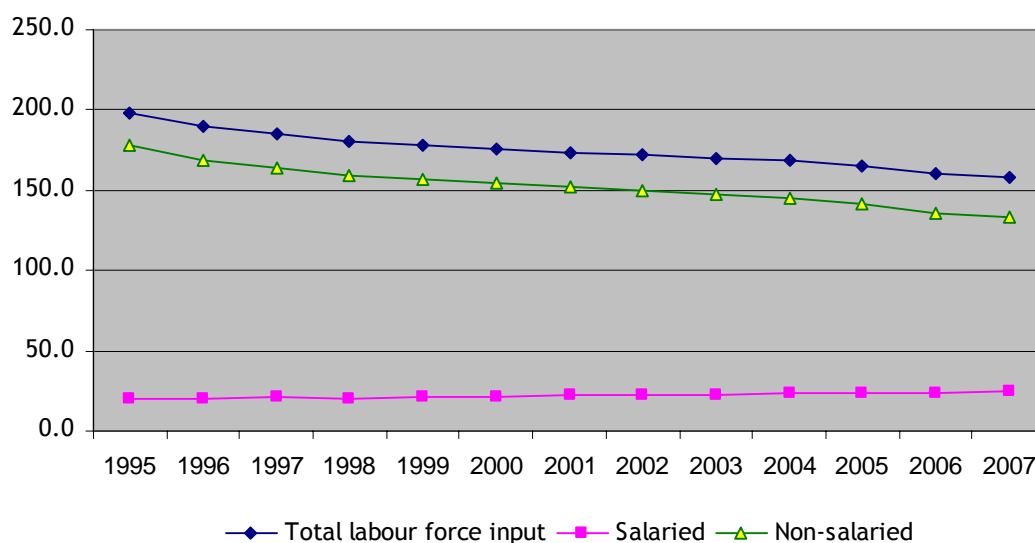
	Livestock (000)				Holdings (000)			
	1995	1999	2005	% change 2005/1995	1995	1999	2005	% change 2005/1995
Cattle	2,324	2,151	2,003	-13.8	116	101	82	-29.3
- of which dairy cows	706	697	536	-24.1	90	78	55	-38.9
Pigs	3,696	3,426	3,148	-14.8	107	83	53	-50.5
Sheep	355	340	316	-11.0	20	18	15	-25.0
Chicken	12,998	13,654	11,340	-12.8	97	81	64	-34.0

Source: Statistik Austria, Farm Structure Survey, compiled on 15 January 2007, <http://www.statistik.at>

2.4 Labour Input

As in most EU member states, Austrian farm labour input has declined over the years (*e.g.* by 20% between 1995 and 2007). Following the western agricultural model and given the small-scale of farms, currently more than 84% of total Annual Work Units (AWUs) is provided by unpaid family members. Nevertheless, a gradual decline of total AWUs supplied by family members can be observed, between 1995 and 2007, as opposed to a slight increase in the number of paid workforce.

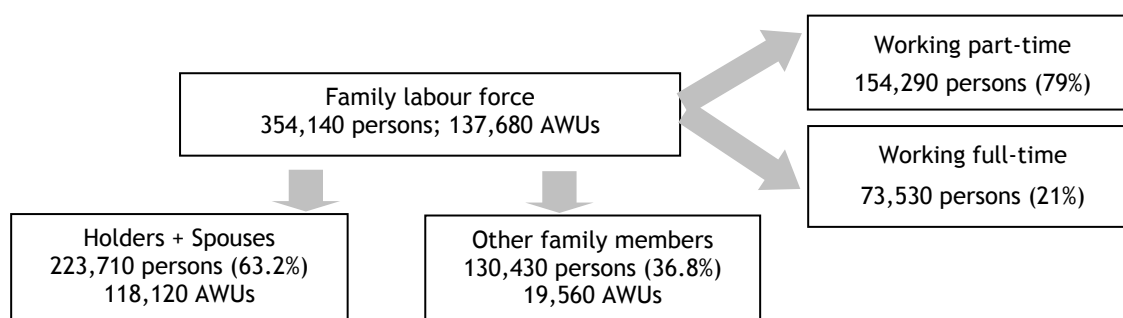
Figure 2.6 Labour Input into Austrian Agriculture, 1995-2007 (000 AWUs)



Source: based on Statistik Austria, <http://www.statistik.at>

More important, out of the total family labour force, almost one in two persons is a woman, and four out of ten people represent other family members. The majority (79%) of family labour force, however, is working part-time on the farm (Figure 2.7). Overall, 44.6% of all farms employ between one and less than two AWUs, whereas 43.5% of them have less than one AWU (CEC, 2007).

Figure 2.7 Family Agricultural Labour Force, Austria, 2005



Source: CEC (2007) Statistics in Focus, Farm Structure in Austria, 2005

Another significant characteristic of the Austrian agricultural labour force is related to the age distribution. A large proportion (63.2%) of sole/main holders (and spouses working on the holding) is aged between 35 and 55 years, whereas only around 9% are 65 years and above (Table 2.9).

Table 2.9 Distribution of sole/main holders by age and farm size, Austria, 2005

Category (years)	Agricultural Area (ha)				All farms
	less than 5	5-<20	20-<50	50 and above	
under 35	7.4	13.4	12.8	11.2	11.7
35 - 44	25.5	32.8	34.7	35.3	31.8
45 - 54	27.4	32.1	33.2	33.3	31.4
55 - 64	19.7	15.0	15.7	16.9	16.3
65 and above	20.0	6.7	3.6	3.4	8.7

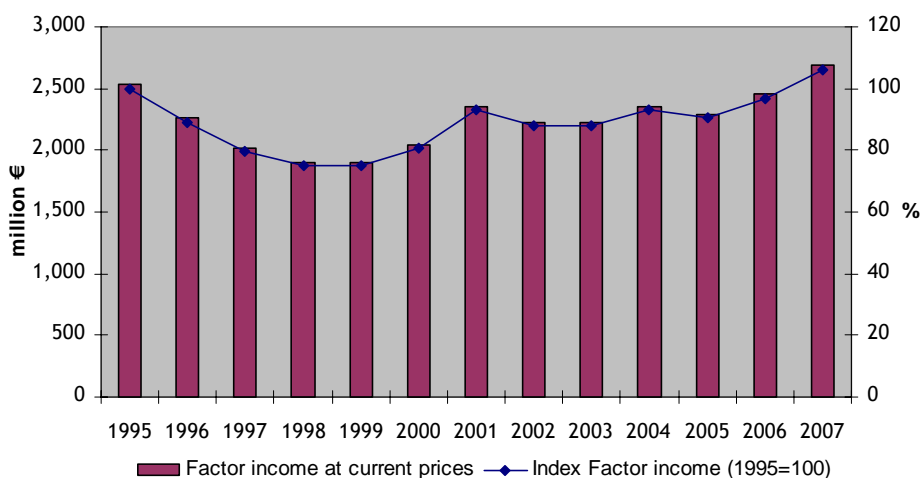
Source: CEC (2007). Statistics in Focus, Farm Structure in Austria -2005, Agriculture and Fisheries

2.5 Farm income

As previously mentioned, Austrian agriculture was heavily protected and supported prior accession to the EU. Therefore, the adoption of the Common Agricultural Policy (CAP) brought a sharp price reduction for Austrian producers, particularly in the first four years following accession. This was also reflected in the total level of agricultural income, which dropped by almost a quarter between 1995 and 1999 (Figure 2.8). This contrasts with the year prior to accession, when Austrian agricultural income²² went up by 4.4% (Breuss, 2000). A modest recovery in 2000 was followed by a significant rise in 2001. Schneider (2001) notices that the increase of agricultural income in 2000 was mainly due to higher direct payments received as a result of Agenda 2000 and a smaller value-added tax paid by farmers following the Turnover Tax Act amendment. Nevertheless, it is not until very recent (2007) that for the first time since accession Austrian agricultural income has exceeded the 1995 level (Figure 2.8).

²² This is measured by real net value added at factor cost per full-time job.

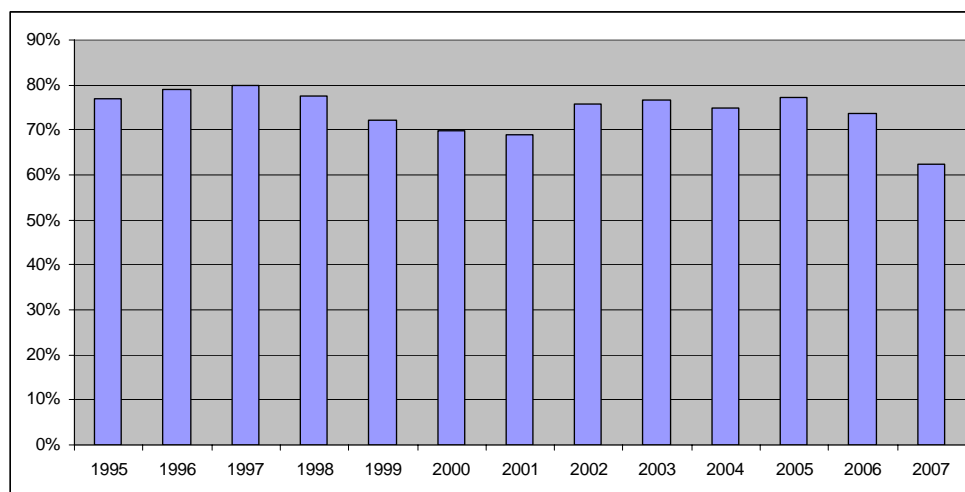
Figure 2.8 Agricultural Factor Income, Austria, 1995-2007



Source: based on Statistik Austria, <http://www.statistik.at>

The contribution of subsidies is very significant to the current Austrian agricultural income and it played an important role prior to accession. For example, the share of subsidies in the national Gross Value Added (at market prices) has increased from around 8% in 1986/1987 to 17% in 1991/1992 and to 45% in 1993/1994 (CEC, 2001). With the entry into the EU and the implementation of the CAP, the agricultural public support was mainly overtaken by the EU.

Figure 2.9 Share of overall subsidies in factor income, Austria, 1995 - 2007



Source: based on Statistik Austria; Main results of the Economic Accounts for Agriculture at <http://www.statistik.at>

In 2005, agriculture and forestry subsidies accounted for €2,420 million (9% higher than in 2004) of which 59% from the EU.²³ The importance of direct payments as a share of the farm income has also increased over the years, *e.g.* from 8.3% prior accession (1992-1994) to 20.4% in the years 1999-2002 (Darnhofer and Schneeberger, 2007). Like in other member states, the variation of the direct payments share in farm income is wider across farm types, *e.g.* from 10% for pig and poultry farms to 27% for arable crop farms. A significant proportion (between 29% and 43%) of these direct payments is due to the agri-environmental measures support (*ibid*).

However, Schmid *et al.* (2006) uncover that other income sources than from agriculture are important for Austrian farm households. Using Farm Accountancy Data Network (FADN) for three consecutive years (2001 to 2003) and an average of 2,572 Austrian farms the study estimated that the average farm household income (> 2 ESU turnover) consists of 13% agricultural and forest market income²⁴, 37% farm subsidies (*e.g.* direct payments, LFA and agri-environmental payments) and 50% from other sources (17% social transfers, 25% off-farm salaries and 8% family support transfers). These findings are also supported by Darnhofer and Schneeberger (2007) who estimate that on average 53% of an Austrian farm family income is based on agriculture and forestry, with the rest of 47% coming from other sources (*e.g.* off-farm employment, child benefits and pensions). As regards farm subsidies, the average farm receives 600 €/ha per year, but this varies between 260 €/ha and 3,500 €/ha. Not surprisingly, larger farms benefit more from both direct and agri-environmental payments. Nevertheless, as compared with other EU15 member states, the distribution of direct payments is more even in Austria, with 53% of direct payments allocated to 86% of total producers (receiving less than €10,000).²⁵ It is estimated that the average Austrian farm receives around €3,600 in the form of direct payments (*e.g.* an average French farm receives €14,114) (Schmid *et al.*, 2006).

However, the development of the most important agriculture income indicator for comparisons within the EU Member States, which is the average real income per worker (known as Indicator A)²⁶, reveals that from 2001 onwards the Austrian figures have been above the EU15 average, and increasingly so (Figure 2.10). Recent estimates on income per holding from agriculture and forestry shows an increase by 2.3% for 2005 (€19,843 per holding in total) as compared to 2004 and an almost 5% rise in 2007 as compared to 2006.²⁷ However, the distribution of income varies considerably across farm types. For example, livestock farms could see a rise of their income by 17% as compared to a loss of 37%

²³ <http://www.un.org/esa/agenda21/natlinfo/countr/austria/agriculture.pdf>

²⁴ This refers to total market revenue minus operating expenses, investments and depreciation.

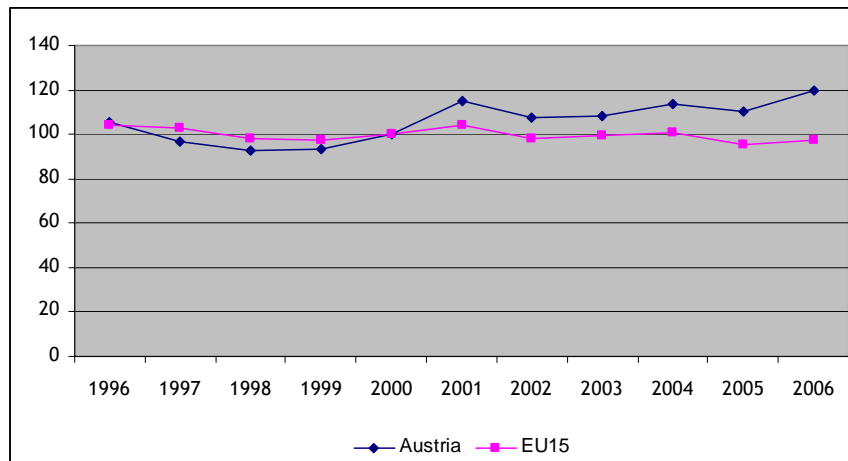
²⁵ Based on www.ec.europa.eu/agriculture/fin/directaid/2006/annex2_en.pdf. For comparison, approximately 89% of total direct aid is allocated to 27% of total producers (receiving less than €10,000) in EU25.

²⁶ This indicator measures the change of real agricultural factor income corresponding to the (deflated) net value added at factor cost related to the change in total agricultural labour input (annual work units). It should not be confused with the total income of farming households as it does not include income from other sources.

²⁷ Eurostat news release 182/2007, 20 December

recorded by permanent crop farms. Mountain farms have increased their income by 11% in 2005, whereas organic farm income grew by 5%.²⁸

Figure 2.10 Indicator A of the Income from Agricultural Activity (2000=100)



Source: based on Eurostat data; <http://epp.eurostat.ec.europa.eu/>

Given the prevailing natural conditions which characterise the Austrian agricultural sector, the development of pluriactivity and off-farm employment have become a constant for many Austrian farms. This is even more evident in the case of smaller holdings. Moreover, Bergmann *et al.* (2006, p.1) point out that the “prevalence of on-farm pluriactivity is linked with extensive on-farm production and low on-farm incomes”, affecting both part-time and full-time farms. They estimate that some 35% of total Austrian farm household income is off-farm. Hence, agricultural diversification and other related activities such as food processing, direct sales or farm-cooperation (contractual work using the holding’s equipment and machineries) are very important. The 2005 Farm Structure Survey²⁹ estimates that almost a quarter (24.7%) of Austrian farmers practices some other gainful activity than agricultural production (termed ‘secondary agricultural activities’). Processing of agricultural and forestry products (*e.g.* must and cheese) is the most important secondary activity, with 48% of those holdings engaging in it. Rural tourism also represents one of the major off-farm sources of income. At least one in three holdings (33.6%) with secondary activities was engaged in tourism in 2005. The ‘farm holidays’ initiative proved to be very successful, attracting annually a large number of tourists. Some 10% of Austria’s total accommodation capacity is directly on farms and other non-farm activity holdings in rural areas. Asamer-Handler and Lukesch (2000) report that the connection between tourism and agriculture is very intensive particularly in rural areas (*e.g.* alpine mountains) where tourism predominates as a sector. It is estimated that visitors spend annually between €1 and 1.2 billion on farm holidays, and some 23,000 jobs are provided by this sector in rural regions.³⁰ Contractual work is used by around 30% of

²⁸ <http://www.un.org/esa/agenda21/natlinfo/countr/austria/agriculture.pdf>

²⁹ Eurostat, Statistics in Focus - Farm Structure in Austria 2005, European Commission 11/2007 and http://www.statistik.at/web_en/statistics/agriculture_and_forestry/farm_structure

³⁰ <http://www.un.org/esa/agenda21/natlinfo/countr/austria/agriculture.pdf>

farms with other gainful activities, and most of the farms which practice this activity are larger scale of 50 hectares and more. Interestingly one can also observe a gradual increase in the number of holdings involved in the generation of renewable energy (2% of farms with secondary activities in 2005). In recent years, biomass use (e.g. wood and arable crops) has become a source for energy production. Government efforts to support these initiatives are increasing and the Austrian Rural Development Programme is the main financial provider. In summary, one can conclude that agricultural multifunctionality is extremely important for rural areas in Austria, and in recent years has become the core of the Austrian agriculture and rural development policies. These are discussed in more detail in the following section.

3 Most Significant Policies to Manage Socio-Economic Changes in Rural Areas

3.1 CAP and Rural Development. The Importance of the Agri-Environmental Measures

The geography of the country has no doubt influenced very much the agricultural and rural development policies in Austria. As only less than 20% of land is suitable for agriculture and as most of the farms are located in LFAs, particularly mountain areas, the government concentrated its efforts to support the development and viability of these farms. Additionally, an increased public awareness for the environment and the preservation of cultural landscape led Austrian politicians to regard agricultural policy within a wider context, placing an emphasis on rural development. Prior accession, the agricultural sector was heavily supported through interventionist and protectionist measures. Price support for key goods (*e.g.* milk, cereals and meat), import tariffs and export subsidies helped the survival of Austrian farms, particularly those of a small-scale. Moreover, considerable support was oriented towards the conversion of conventional farms into organic farming.

With accession to the EU, the financial support burden for the Austrian farm sector shifted from national and regional levels to Brussels. Thus, between 1995 and 2006, the EU contribution, in the form of the CAP payments, to the Austrian agriculture accounted for approximately €13.6 billion (Table 3.1). Table 19 also highlights that although the EU financial resources for Pillar 1 accounted for the largest share since accession to the EU, there is a slight increase of the proportion of funds allocated for the development of Pillar 2 measures.

Table 3.1 Development of EU contribution to CAP payments in Austria since 1995 (million EUR)

Year	1 st Pillar	of which Export subsidies	2 nd Pillar	Other *	total
1995	489.81	26.63	223.47	273.70	986.98
1996	594.25	70.45	330.15	156.13	1,080.52
1997	554.89	67.67	324.28	99.55	978.72
1998	596.60	55.70	379.52	42.47	1,018.59
1999	594.37	72.64	376.92	14.02	985.31
2000	626.87	63.41	463.65	14.08	1,104.60
2001	583.18	52.41	455.50	65.76	1,104.44
2002	655.43	57.52	457.80	6.76	1,119.99
2003	680.06	44.75	463.00	21.51	1,164.57
2004	731.79	41.63	473.35	23.13	1,228.27
2005	920.98	43.83	485.31	25.48	1,431.77
2006	804.48	33.66	565.29	24.41	1,394.18
Total	7,832.71	630.3	4,998.24	767.0	13,597.94

Source: Lebensministerium 2007b. * This covers storage costs for surplus products, digressive payments, Community Initiatives, producer cooperation, Structural Funds.

The consideration of the environment as an important issue within Austria's agricultural and rural development policies dates back to the early 1970s (Darnhofer and Schneeberger, 2007). In 1972, the government initiated its first support programme for maintaining viable farming communities in the mountains areas (the Mountain Farmers Special Programme 1972-1978). Two follow-up programmes were implemented from 1979-

1983 and 1984-1990. Around ECU1.2 billion were allocated to support the mountain farmers between 1972 and 1990, of which 46% represented direct income supplements and other allowances (Hovorka, 1998). Additionally, for the same period, 30% were oriented to the improvement of infrastructure (*e.g.* roads, electrification and telephone networking) and 15% for the modernisation and improvement of agricultural holdings. However, as the intensification of agricultural production increased during the 1980s, so did the public concerns regarding land conservation and the preservation of the environment. Pressure from environmentalist lobbies forced the government to adopt more specific measures to support these issues. Hence, a number of important acts were adopted between 1980 and 1990, *e.g.* the Animal Husbandry Act 1980 (stipulates the maximum stock density per farm), support for organic farming (1983), inputs tax (1986 and 1987), the Agricultural Act 1988 (maintenance of natural resources and landscape conservation) and the Water Act 1990 (protecting water resources by restricting cultivation) (Darnhoffer and Schneeberger, 2007; Groier and Loibl, 2000). Moreover, by the mid-1980s, introduction of the so-called “ecological and social agricultural policy” with a focus on both environmental and socio-economic issues strengthens the link between agriculture and environment. This led to the introduction of specific agri-environmental payments during the late 1980s and early 1990s (Groier and Loibl, 2000). In this context, the support of organic farming became a priority on the policy-makers agenda.

Some may argue that it was mainly the preparation for EU accession that led Austria’s politicians to reconsider agricultural policy, by concentrating particularly on agri-environmental measures. Darnhofer (2005) notes, however, that the current high rate of participation of most Austrian farms in ÖPUL “can be seen as a result of a successful Austrian agricultural policy which aims to reconcile agricultural production, environmental protection, social cohesion and rural development” (p. 712), but the foundation of which was established well before the EU entry. Indeed, the EU policy at the time of Austria’s accession made the consolidation of such a strategy easier. The “Accompanying Measures” of the 1992 MacSharry reform, particularly the agri-environmental measures and compensatory allowances for LFAs, were more than suitable for Austrian farmers. Therefore, in preparation for accession a new Agriculture Act was adopted in 1992. This laid down the main objectives of the Austrian agricultural policy, but in line with the EU guidelines. The Act highlighted the importance of farming within a friendlier environment with a focus on the “ecological compatibility of agricultural practices” and a financial support for those who practice “environmentally friendly production methods and product quality” (Groier and Loibl, 2000, p.172). Additionally, Austria had its own Agri-environmental Programme (ÖPUL) designed to take full advantages of the “options listed in the Regulation (EC) 2078/92 - to support an ecologically and sound agriculture based on private-owned family farms and covering all rural areas” (Darnhofer, 2005, p. 712). Designed as a comprehensive horizontal programme, ÖPUL extended previous measures (*e.g.* support for organic farming and crop rotation, and alpine pasture payments), but also introduced new ones for the support of environmentally friendly farming, such as payments for encouraging the abandonment of yield-increasing inputs on arable and grassland and incentives for extensive cereal farming) (Groier and Loibl, 2000). The large public support of organic farming prior accession was thought to be a solution for surviving within the competitive EU market; and it proved to be a well thought out strategy by Austrian decision-makers.

Against this background, the adoption of the CAP was considered by the Austrian government as the best opportunity for the expansion and consolidation of its agri-environmental programmes. Moreover, these were seen as the perfect policy instrument “to ease the transition into the EU for Austrian farmers [heavily affected by the drop in price support immediately after accession] and to ensure that environmental aims were safeguarded” (Darnhofer and Schneeberger, 2007, p.366). This is reflected by the high proportion (22%) of Austria’s total EAGGF Guarantee Section budget allocated for agri-environmental programmes prior and immediately after EU accession (Buller, 2000). Between 1993 and 1997, Austria ranked second after Germany, by receiving 21.3% of the total EU15 EAGGF agri-environmental budget.

The first ÖPUL was implemented in 1995 and it proved to be very popular. Some 180,000 farmers³¹ (more than 80% of eligible farmers) signed up for the participation in the programme, covering over three quarters (76%) of the total Austrian UAA (excluding alpine pastures) (Groier and Loibl, 2000). More than a third (37%) of the entire national budget was used for payments of agri-environmental measures to farmers. Farmers’ experience with previous agri-environmental measures (particularly organic farming), but mostly the horizontal character of the programme explains the popularity of ÖPUL (ibid). Farmers could choose from a menu of 25 measures, many of which were adapted so to satisfy the needs of a variety of farm types, no matter the form of production or farming practices. The farm income-support orientation of the programme attracted a much larger number of participants than initially estimated. ÖPUL I (revised in 1998) was completed in 2000. Estimates show that, between 1994 and 1999, Austria spent on average €433 million per year for agri-environmental schemes, being one of the highest spending countries (alongside Finland) within the EU15 (Dwyer *et al.*, 2002).

The changes brought by the Agenda 2000 reform and the adoption of the Rural Development Regulation (EC 1257/99) which set up EU rural development policy as the second pillar of the CAP led in 2000 to a newly designed ÖPUL. This was implemented from 2001 until 2007, and it included 32 measures, which covered specific regions as well as provinces. As previously, participation was voluntarily based on a contract of at least five years. The 32 measures can be clustered in a number of actions. The baseline action is the basic subsidy or the ‘basic measure’ while at the top is the conversion and continuation of organic farming. The ‘basic measure’ is the measure most relevant to the agricultural practices or environmental concerns corresponding to each farm. Farmers usually choose their own ‘basic measure’ plus at least two others. Only a few of the total measures make sense to be implemented alone (Darnhofer and Schneeberger, 2007). Other actions refer to extensification, preserving landscapes and traditional farming methods, soil and water protection and project-linked measures on individual plots (CEC, 2003). ÖPUL offers flat-rate payments by combining agricultural support with agri-environmental schemes. The maximum annual level of payment per farm varies between €690.4/ha and €872/ha, with premiums for arable land between €41/ha for ‘greening of arable land in autumn and winter’ and €327/ha for organic farming (ibid). Table 3.2 presents the most important agri-

³¹ The minimum size for eligibility varies between 0.5 ha (for farms growing at least 0.25 ha of specific crops such as strawberries, flowers, orchards and vine) and 2 ha.

environmental measures for 2003 and 2004. In 2004, participants in ÖPUL received on average €4,787/farm, as compared to €4,650/farm in 2003 (3% rise). Table 3.2 also shows a slight decrease (less than 1%) in the number of participant farms while the area covered remained almost constant. Total payments increased.

Table 3.2 Agri-environmental Measures (ÖPUL), Austria, 2003 and 2004

Measure	Number of participants		Area covered (000 ha)		Payments € million	
	2003	2004	2003	2004	2003	2004
Basic measure	119,98 ¹	119,231	1,973.8	1,998.3	100.2	101
Extensive production methods/greening of arable land in autumn and winter	60,826	57,846	487.3	1,088.4	77.6	97.9
Organic farming	17,591	18,292	294.9	309.3	86.0	90.6
Abandonment of yield-increasing inputs on grassland and arable land	85,828	85,903	814.0	944.0	96.4	130.5
Support for alpine pastures and cultivated landscape on sloping sites	61,410	...	690.1	...	64.8	...
Total	135,175	134,114	2,743.7	2,714.2	628.5	642.0

Source: Knöbl (2006) and Darnhofer and Schneeberger (2007)

The significance of ÖPUL within the general context of Austria's agricultural and rural policies is irrefutable. Its philosophy is "that policy should not only help reduce environmental damage, but should also prevent future damage according to the precautionary principle" (Groier and Loibl, 2000, p.176). The increased share within the distribution of the Austrian agricultural budget over the years also reflects its importance. Hence, €567 million per year were spent on average for agri-environmental measures between 2000 and 2006 (Dwyer *et al.* 2002). For the same period, Austria's received 16% of the total EU agri-environmental payments (Darnhofer and Schneeberger, 2007). Within the Austrian Rural Development Programme (RDP) for 2000-2006, which accounted for almost €7 billion of total public expenditure, ÖPUL accounted for 62% (Table 3.2). The programme continues to be at the core of the Austrian agriculture and rural development policies, and it remains the main source of public support for agriculture. Although it can be argued that the major aim of ÖPUL is to support the farming community, its "all-land-covering approach of ensuring and maintaining the cultural landscape, which is the asset of the rural areas in Austria" (Knöbl, 2006, p.274) makes ÖPUL a key instrument for the development of rural areas.

3.2 LFA Compensatory Allowance

As 70% of total agricultural land falls within the LFAs category, with most within the mountain areas, the LFA compensatory allowance is the second most important instrument for rural Austria (after ÖPUL). Following accession, these payments replaced the previous direct aid distributed (through the federal and provinces levels) to mountain farms under the Mountain Farmers Special Programmes. The LFA payments aim to compensate farmers for the higher production costs caused by the natural handicaps and seek to reduce the negative effects of farm abandonment in these areas. Farmers in these areas receive compensation in accordance with the severity of the natural conditions and farm types,

e.g. rearing cattle holdings, which are essential for the preservation of the Austrian alpine landscape. Knöbl (2006) also notes that the compensatory allowances are also oriented towards the preservation of small-scale farms, as the level of support is at its highest for the first six hectares (area aid I). There is also a second level of support (area aid II) which is progressively reduced from 60 up to 100 hectares. Thus, the LFA payments are a significant source of income for farm holdings in these areas, with some 14% to 37% of farm income provided through this instrument.

Knöbl (2006) and Darnhofer and Schneeberger (2007) remark that the combination of LFA and ÖPUL payments and investment support are playing a key role in offsetting farm abandonment and the maintenance of a relatively stable number of farms in these areas. It is estimated that between 1995 and 2003, less than 10% of farms receiving these payments have abandoned farming (Darnhofer and Schneeberger, 2007). Nevertheless, Hovorka (cited in Dwyner *et al.* 2002) observes that the agri-environmental payments and LFA compensatory allowances create an imbalance among Austrian farmers, with income disparity between favoured and less favoured areas on the rise. This is somewhat contrary to Knöbl's (2006) findings, who reports that both ÖPUL and LFA payments are rather evenly distributed across Austrian farmers. Although it is difficult to explain the different assessments by the two studies it is likely that the period of analysis differs, with Hovorka's study referring prior to the implementation of the Regulation (EC) No.1257/1999. Knöbl (2006) notes that from 2001 onwards the implementation of the LFA compensatory allowance scheme was subject to a number of differentiating elements, with better targeted compensation based on area, land type, farm type and the level of natural handicap (assessed through a point system).

Under the second pillar of the CAP, for the period 2000-2006, the Austrian LFA payments accounted for €1.8 billion (or 26%) of total public expenditure (Table 3.2). More than a third (36%) was contributed by the EU. The Agenda 2000 reform and the creation of the second pillar of the CAP offered new opportunities for Austria's agriculture and rural development. It was clear from the outset of the RDP for 2000-2006 that the government will continue to concentrate its efforts on the promotion of a "competitive and environmentally sustainable agricultural sector while maintaining the importance of the family farms" (CEC, 2003). The programme set up three specific objectives: (i) farmers' compensation for multifunctional agricultural services; (ii) preservation of assets with regards to the maintenance of holdings and (iii) improving competitiveness of agriculture, forestry and rural regions. These were to be achieved mainly through individual measures, such as ÖPUL and LFAs compensatory allowances. The RDP 2000-2006 covered the entire national territory with the exception of the Objective 1 region Burgenland, which was co-financed by the EAGGF³² section of the Structural Funds. Additionally, the LEADER+ Programme was also financed through the EAGGF as a Community Initiative. The Rural Development Programme established seven priorities and eight individual measures (Table 3.3).

³² European Agriculture Guarantee and Guidance Fund.

Table 3.3 Rural Development Programme and Total Support for Rural Development, Austria, 2000-2006

Priority	Measure	Public expenditure (€ million)	EU contribution (€ million)	Percent of total public expenditure in RDP
1. Modernising agriculture	Farm investment	265.7	132.7	3.8
	Young farmers	95.2	47.6	1.4
2. Vocational training	Training	44.6	22.3	0.6
3. LFAs	Less-favoured areas	1,830.8	659.5	26.1
4. Agri-environmental measures	ÖPUL measures	4,358.6	2,140	62.2
5. Processing and marketing	Processing & marketing of agricultural products	89.6	44.5	1.3
6. Forestry	Forestry and farmland afforestation	119.4	59.8	1.7
7. Rural development	Article 33 measures	201.4	100.7	2.9
Total RDP (EAGGF- Guarantee)		7,005.3	3,207.1	100
Objective 1 Programme (EAGGF)		57.2	43.2	75.5
Additional national funds for Objective 1		73.0	0.0	0
Total Objective 1		130.5	43.2	33.1
LEADER+ Programme (EAGGF)		105.3	76.8	72.9
Total support for rural development		7,214.2	3,327.1	46.1

Source: based on Knöbl (2006) and Dwyer et al. (2002)

Agri-environmental measures and the LFAs compensatory allowances taken together account for 86% of total public support for Austria's rural development between 2000 and 2006. The rest was distributed amongst the other individual measures with a focus on investments in agriculture (Priority 1) and rural areas (Article 33). As regards Article 33 measures, the resources were distributed for the diversification of agricultural activities (particularly tourism projects), measures regarding the improvement of the infrastructure and the development of villages in rural areas and investments in cultural heritage and nature conservation projects. Most of the funds, however, were concentrated on diversification and the development of infrastructure, *e.g.* forest roads (Dwyer *et al.*, 2002). The nature conservation projects contribute to the implementation of the Natura 2000 network. Additionally, local production of energy supply from renewable resources (especially wood) by small-scale rural holdings was considered also a priority of the Austrian rural development policy and diversification of agriculture activities. Some €126 million, covering 450 projects, were committed as by the end of 2005 (Knöbl, 2006).

A report by Dwyer *et al.* (2002) argues that the considerable weight given to the environmental measures within the Austrian Rural Development Programme 2000-2006 masked a profound agricultural support rather than a rural development orientation. Moreover, given the "lack of objective and quantifiable environmental indicators" it is hard to assess if the massive financial injection in ÖPUL will deliver real benefits (p.67). Although the report was written before the completion of the programme, it is noted that the RDP was almost "exclusively directed to farmers" (p.34) and the "measures hardly support rural development in the proper sense" (p. 76). Hence, the direct impact on rural development was expected to be relatively low. In contrast, the investments in resources and prerequisites of rural development through the programme led these authors to

foresee higher indirect effects on rural development, such as the preservation of landscape, retaining population in less accessible areas, safeguarding the livelihood of small producers, stimulating farmers to invest in vertical integration and fostering the incorporation of environmental concerns into the production process. Darnhofer and Schneeberger (2007) also see the difficulty of measuring and assessing the direct effects of policies on the environmental effectiveness. Indeed, some official documents like for example the Rural Development National Strategy Plan for 2007-2013 points out that previous Austrian policy “gave a special weight to the issue of compensation in the framework of agri-environmental measures for services” (p.16). This was because the development of a multifunctional, sustainable and competitive agriculture and vibrant rural areas, which at the same time preserves the environment with its natural resources and traditional landscapes while safeguarding peoples’ livelihoods cannot take place without any support and intervention from the government.

Hence, although farming has remained at the core of the Austrian agricultural and rural development policies, Austria devotes one of the largest shares of public support of all EU Member States to the second pillar of the CAP. In 2005, 70% of Austria’s budget for agriculture was allocated to rural development measures (mainly ÖPUL and LFA payments) and only 30% went to the first pillar. Agricultural spending under the first pillar of the CAP concentrated mainly on direct payments and processing and marketing (Asamer-Handler and Lukesch, 2002). Still, direct payments through the first pillar of the CAP are important for Austrian farmers, and they complement the agri-environmental and LFAs compensatory payments. However, Knöbl (2006) argues that there is an essential difference behind the rationale for direct payments under the first and the second pillar. In his view, the direct payments from the first pillar represent an “income policy for European farmers”, whereas the transfers of the second pillar in Austria “are granted for concrete services delivered by agricultural holdings” and “represent the compensation of the multifunctional services of agriculture and forestry” (p. 276).

3.3 Structural Funds

Although it is difficult to single out the effects of Structural Funds on the development of rural areas (mainly due to the interaction of different public funding sources, plus also private sources), it is generally accepted that, following accession to the EU, the Austrian regional policy and regional development has gained new salience. Prior accession, regional policy had become a political priority only in the 1980s, when the traditional policy focusing on the reduction of regional disparities was replaced with a structural policy concentrating on endogenous development, innovation and modernisation (Gruber, 1997). Following EU accession, regional funding accounted for approximately 32% of total economic subsidies, being more than double as compared to previous years (Centre for Industrial Studies, 2005). Regional development is based on co-financing EU contributions based on the classification of objective areas. The total amount of EU Structural Funds between 1995 and 1999 amounted to ECU 1,623 million (at 1995 prices), and the distribution across objectives is presented in Table 3.4.

Table 3.4 Structural Funds Expenditure, Austria, 1995-1999

Programmes	Funded from	Total Public Million ECU	EU contribution	Total public/year

			Million ECU	Million ECU
Objective 1	ERDF, ESF, EAGGF ³³	469.5	165.6	93.9
Objective 2	ERDF, ESF	...	101.4	57.8
Objective 3&4	ESF	952.7	395	190.5
Objective 5a	EAGGF	...	388	...
Objective 5b	EAGGF, ESF, ERDF	1,092.9	411.1	
Community Initiatives (total)	EAGGF	285.2	162	14.9
- LEADER II		45.8	26.5	
- INTERREG II A		86.2	42.7	
- Employment		78.8	39.4	
- Others (e.g. Urban I, RESIDER II and RETEX)		74.4	53.4	
TOTAL		2,800.3	1,623	...

Source: based on Gruber (1997) and Lukesch and Asamer-Handler (2002)

Table 3.5 Structural Funds Expenditure, Austria, 2000-2006

Programmes	EU Contribution Million EUR
Objective 1 (Burgenland only)	271.00
Objective 2 (all other federal provinces)	680.00
Objective 3 (all of Austria)	528.00
Community Initiatives	
EQUAL	96.00
INTERREG IIIA	141.70
INTERREG IIIB and INTERREG IIIC	41.50
LEADERplus	71.00
URBAN II	8.00

Source: <http://www.tirol.gv.at/themen/tirol-und-europa/eu-regionalfoerderungstirol/oesterreich/programm-und-mittelausstattung/>

Objective 1 refers to the development of regions whose per capita GDP is less than 75% of the EU average. The only Austrian region eligible for this category was Burgenland, which covers the most eastern part of Austria (Objective 1 status was terminated in 2006). One of the priorities of this region under Objective 1 was 'agriculture, forestry, fisheries and protection of nature'. Closer to agriculture and rural development are Objectives 5a and 5b and the LEADER Programme. The first two promoted the adjustment of agricultural structures (Objective 5a) and development of rural areas outside Objective 1 (Objective 5b). For the period 2000-2006, some €2.7 billion (at 2004 prices) were committed for

³³ ERDF = European Regional Development Fund; ESF = European Social Fund

Austria's structural aid. Most of this was allocated for Objective 2 areas (€771 million), Objective 3 (€608.9 million) and Objective 1 (€300 million).³⁴ Nevertheless, when assessed in real terms (using 1999 prices) there is a drop of EU funding by almost 3%, from €1,516 million (does not include Community Initiative funds) in 1995-1999 to €1,473 million in 2000-2006 (Breuss, 2000). Estimates regarding the effects of the participation in the EU regional policy for Austria are rather scarce. Breuss (2000), examining the effects of the 1995-1999 EU regional aid, concluded that this "stimulated the Austrian economy only moderately" (p. 188). The study conducted by the Centre for Industrial Study (2005) has also supported this finding. There is also no clear evidence that the disparity gap between regions has narrowed, but the time-period analysis is rather short for such changes. As regards rural development, Asamer-Handler and Lukesch (2002) note that the structural support (provided through LEADER and Objective 5b) for 2000-2006 had decreased as compared with the previous period (1995-1999). The main, commonly accepted, benefit is the enforcement of systematic control mechanisms of the EU regional policy, which led to a more transparent public support system (Centre for Industrial Study, 2005; Breuss, 2000).

3.4 LEADER II and LEADER+ Programmes

Although very little was allocated to the LEADER-type Programmes³⁵, this EU community initiative was well received by many local communities across the country following the country's entry into the EU. Believed to continue the long Austrian tradition of income support and the development of rural areas, both LEADER II (1995-1999) and LEADER+ (2000-2006) have generated a considerable positive response and attracted an important share of participation from the population. Asamer-Handler and Lukesch (2000) note that LEADER II led in many areas to a "dynamisation of actors" at the local but also provincial level (p. 31). A good example in this respect is the LEADER "Cheese Route Bregenzwald" project, carried out in Vorarlberg region (Shucksmith *et al*, 2005). The objective of the project was "to emphasise the uniqueness of the region's products (especially cheese) and to increase the region's value added of cheese production by about one-third ..., thereby contributing to assuring the livelihood of the rural population, reducing the quantity of commuters and helping to create new jobs in tourism and trade" (ibid, p.177). The inclusion and commitment of a large number of beneficiaries (almost 200 members) from both public and private sectors, an "innovative multi-stakeholder partnership, as well as the integrated marketing concept which was able to establish a new high quality brand" and enhanced sales led to a remarkable performance with positive economic effects for the region as a whole (ibid, p.178).

The positive impact of LEADER II influenced an increase in the number of Local Action Groups (LAGs) from 31 to 56 under the LEADER+ programme. LAGs were established in eight Bundesländer (all but Vienna) and covered 54% of total area and 27% of the Austrian population (the third largest share within the EU15 and almost double of the EU15 average) (LEBENSMINISTERIUM, 2007a). LEADER+ focused on the local management, training activities and improvement of the quality of life for the local population (Knöbl, 2006).

³⁴ http://europa.eu.int/comm/regional_policy/index_en.htm

³⁵ The LEADER+ Programme received less than 1.5% of total support for rural development in 2000-2006.

Particularly popular amongst most of the LAGs was the introduction of ICT and the training of the rural population on these modern communication technologies (LEBENSMINISTERIUM, 2007a).

3.5 Rural Development 2007-2013

In line with the changes brought by the Mid-Term Review reform (2003) and the adoption of the new Rural Development Regulation (EC) 1698/2005, Austria (as all other EU member states) was asked to prepare its own Rural Development Programme (RDP) for 2007-2013. The programme could cover the entire member state or individual regions within the country, and the measures to be implemented should be clustered around four axes: Axis 1: increasing competitiveness of agriculture and forestry; Axis 2: improving the environment and the countryside; Axis 3: improving the quality of live in rural areas and diversification of the rural economy and Axis 4: LEADER.

Austria opted for a single national RDP. This was approved by the Rural Development Committee of the European Commission on September 2007. In accordance with the Community Strategic Guidelines and the National Strategy Plan for Rural Development, the Austrian RDP establishes three major objectives: (i) improving the competitiveness of the agricultural and forestry sector; (ii) sustainable use of natural resources and landscape conservation and (iii) conservation and development of attractive and vigorous rural areas.³⁶ These follow the aims set up for the previous RDP 1995-1999 regarding the promotion of a competitive and environmentally sustainable agricultural sector and the preservation of landscape and nature protection. Therefore, it has not come as a surprise that measures for Axis 2 received with 72% the largest share of total public expenditures allocated to the Austrian second pillar (Table 3.6).

Table 3.6 Total Public Expenditure for Rural Development, Austria, 2007-2013

Axis	Total Public Expenditures		EU contribution from EAFRD	
	€ million	% of total	€ million	% EU contribution
Axis 1	1,078.5	13.8	540.8	50.1
Axis 2	5,661.5	72.4	2,828.5	49.9
Axis 3	506.1	6.5	254.0	50.2
Axis 4 LEADER	423.1	5.4	213.7	50.5
Technical Assistance	153.1	2.0	74.4	48.6
Total	7,822.3	100	3911.4	50.0

Source: <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/07/370&format=HTML&aged=0&language=EN&guiLanguage=en>

³⁶<http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/07/370&format=HTML&aged=0&language=EN&guiLanguage=en>

Within Axis 2, agri-environmental payments and compensatory allowances for LFAs account for 90%. Payments from this axis contribute to safeguarding the farmed environment, support/compensate farmers for specific environmental services and the delivery of Natura 2000. Amongst these measures, the promotion of organic agriculture continues to be a priority, the national strategy plan envisaging that some 18% of total managed land to become organic by the end of the programme. As regards LEADER, the resources allocated for this axis should contribute to the objectives of Axes 1, 2 and particularly Axis 3, but also “play an important role in the horizontal priority of improving governance and mobilising the endogenous development potential of rural areas (Lebensministerium, 2006, p.25). It is intended that the number of LAGs for this period should reach 100. LEADER will be implemented mainly via Axis 3.

The main players involved in the implementation of Austrian agricultural and rural development policies are: the Federal Ministry of Agriculture, Forestry, Environment and Water Management, Offices of the Federal Governments (, Chambers of Agriculture, Agrar Markt Austria (a public market organisation and intervention body) and the Austrian Agency for Health and Food Safety (AGES) (<http://www.landnet.at>). Additionally a large number of voluntary organisations (e.g. the Federation of Austrian Cattle Breeders, the Austrian Federal Association of Famers and Forest Owners, the Working Group Agricultural Poultry Management and the Federal Association of Vine-Growers) work closely with the Chambers of Agriculture. Important economic decisions, including those regarding agriculture and forestry sector, are however taken within a so-called Sozialpartnerschaft (social partnership). This was established in 1957 between the four major representations of interest: the Standing Committee of the Presidents of the Chambers of Agriculture, Austrian Economic Chamber, Federal Chamber of Labour and the Austrian Federation of Trade Unions (<http://www.landnet.at>). The agriculture cooperative system also provides a good networking for those “unofficial” actors who want to participate in the decision-making process of agricultural policy. It can be concluded that due to its federal structure, the involvement of the Federal Provinces in the decision-making process is crucial, making an important contribution to the development of agriculture and forestry sector as a whole.

4 The Tyrol Region



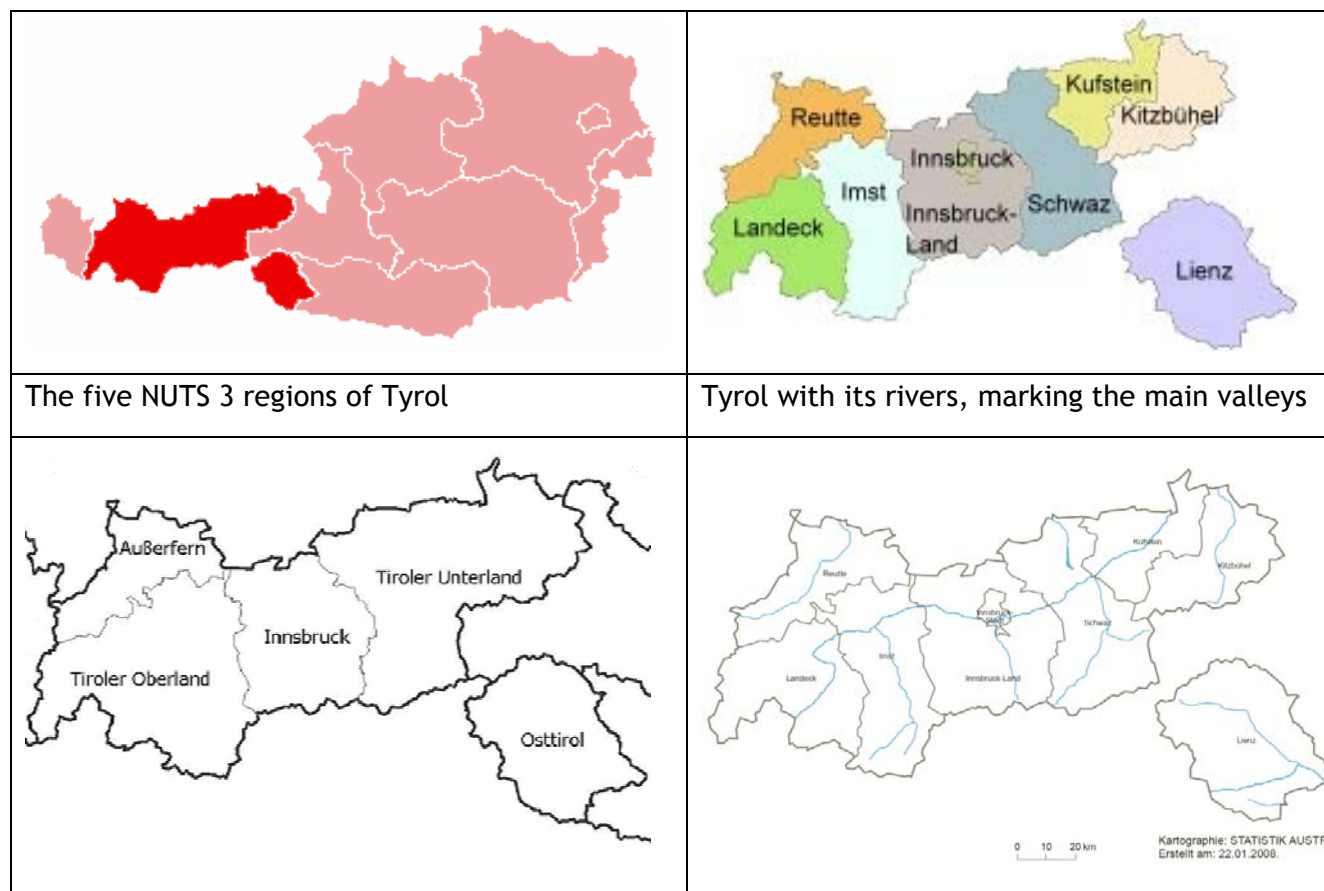
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4.1 Brief description of the region

Tyrol, with its capital Innsbruck located in its centre, is situated in the western part of Austria in the Alps, bordering with Italy in the south, Germany in the north, and other Austrian provinces in the west (Vorarlberg) and east (Salzburg and Carinthia). It covers an area of 12,648 km² and is split into nine political districts (Figure 4.1). The population of around 700,000 lives in 279 municipalities (among those 11 cities). Administratively, it constitutes a NUTS 2 region with five NUTS 3 subregions, and the municipalities are defined as the LAU 2 level ('local administrative unit', formerly NUTS 5). These NUTS 3 regions are sometimes equivalent to the historic political districts (Bezirke), and sometimes they consist of several of these districts: (1) Außerfern (Reutte), (2) Tiroler Oberland (Landeck, Imst), (3) Innsbruck (Innsbruck city, Innsbruck Land), (4) Tiroler Unterland (Schwaz, Kufstein, Kitzbuehel), (5) Osttirol (Lienz). Slightly awkwardly, Osttirol is physically detached from the remaining Tyrol because of the partition of North and South Tyrol after the First World War. Along the OECD typology, Innsbruck is an integrated region, with the remaining NUTS 3 regions counting as predominantly rural (Lebensministerium, 2007a). Tyrol covers 15.1% of total land area, 8.5% of Austria's population and accounts for 8.7% of the country's GDP (Statistik Austria, 2005).

Figure 4.1 Maps of Austria and Tyrol

Tyrol as one of nine federal provinces of Austria	The nine political districts of Tyrol
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Source: Statistik Austria and Wikipedia

The prevailing Alpine climate is characterised by relatively humid, but warm summers, dry autumns and snowy winters. But the regional variations are large with often plenty of snow in the smaller valleys branching off the main Inn valley (which roughly runs from east to west), with very little staying in the Inn valley itself, due to its relatively lower altitude, lower precipitation, and a somewhat warmer and intense wind (foehn) passing through the Brenner pass from Italy towards Innsbruck. This extends the growing season in the main valley in comparison with the rest of the province.

Tyrol is Austria's most mountainous federal province, with the highest peaks along the south-west border, which gradually get somewhat lower running eastwards, with increasing possibilities for mountain pastures and also skiing. Thus, only 9.3% of the land area is used for agriculture, but 27.3% are mountain pastures and 36.9% are wooded (Table 4.1). Tyrol's Alpine character means that only 11.8% of its total area is currently used for permanent settlements (Austria 37.4%).

Table 4.1 Area and Types of Land Use in the Federal Provinces, Austria, 01.01.2005

Federal Provinces (NUTS2)	Total area km ²	Land use in %						Permanent settlements (km ²)
		Agri-cultural use	Gardens	Vineyards	Mountain pastures	Forests	Other*	
Burgenland	3,965.5	50.2	2.9	3.8	-	30.5	11.8	2,461.5
Carinthia	9,536.0	19.9	1.6	-	15.8	52.9	9.4	2,314.2

Lower Austria	19,177.8	49.5	2.5	1.7	0.2	39.4	5.8	11,250.0
Upper Austria	11,981.9	47.8	2.6	-	0.4	38.8	9.5	6,570.6
Salzburg	7,154.2	16.3	1.4	-	25.5	39.8	16.6	1,429.1
Steiermark	16,391.9	24.2	2.3	0.3	6.6	57.1	8.9	4,927.6
Tyrol	12,647.7	9.3	1.0	-	27.3	36.9	25.2	1,493.3
Vorarlberg	2,601.5	17.5	2.2	-	25.4	34.0	20.2	586.0
Vienna	414.7	15.8	28.4	1.7	-	16.6	26.2	322.8
Austria	83,871.1	30.9	2.2	0.6	10.3	43.3	12	31,355.2

Source: Statistical Yearbook Austria, 2006; * including water surface

Rail and road links passing through the lower Inn valley and over the Brenner Pass to Italy form one of the most important north-south traffic routes in Europe. Associated problems with the quality of life of the local population lead to the development of the Brenner base tunnel project, which now seems to become reality following longstanding negotiations on the European level and necessary co-financing promises.

All in all, Tyrol is perceived to be a relatively wealthy province although its gross income level is still below the Austrian average, but relative productivity is high with an above average GVA per head. The income is mainly generated from tourism and the associated retail market, and industry with its services. Tyrol takes advantage of its Alpine scenery by cultivating a major winter and summer tourism that is very much shaped by its topography and Alpine climate. Especially winter tourism is mainly promoted along the north-slopes of the Alpine peaks along the southern and western border. It is one of the top 20 EU-27 tourist regions (CEC, 2007). Tyrol's industrial sector is largely located in the Inn valley, in the districts Imst, Innsbruck, Schwaz, and Kufstein. Some more industry with important, internationally recognised employers can be found in Reutte and Kitzbuehel. This does not mean that the advantages of these two main industries are to the benefit of every part of the province. On district level, large shares of Reutte, Landeck, Imst, and especially Osttirol benefit from objective 2 contributions of the Structural Funds (some also of Innsbruck Land), and without the agricultural subsidies, the largest shares of the mountain farms would not exist anymore.

4.1.1 Demographic Changes

The population density of 55 inhabitants/km² distributes unevenly, with large barren land in the mountains and one main agglomeration in and around Innsbruck (1,124 inhabitants/km²), stretching to the east and west along the Inn valley. This results in a

population density of 469 inhabitants/km² permanent settlement area. In 2006, Tyrol had the third-highest birth rate in Austria with 9.9 live births per 1000 population. The average fertility is 1.41 children per woman.³⁷ Besides the ageing effect of the population like in other places in Europe, the steadily rising population figures are also due to positive in-migration, which is mainly due to the pull factors employment in tourism and also industry, plus the attractive scenery. Tyrol shows the lowest divorce rate (37.5%) and the highest life expectancy among the federal provinces with 79 years for males and 83.5 years for females (ibid.).

Table 4.2 Population developments in Tyrol, 1982-2006

NUTS 3	Political district	1982	1992	1996	2001	2006	% change 2006/1996
Außerfern	Reutte		30,305	31,043	31,574	31,913	2.8
Tiroler Oberland	Imst		48,845	51,725	53,196	55,603	7.5
	Landeck		41,318	42,824	43,752	44,287	3.4
Innsbruck	Innsbruck-City		111,305	109,763	113,728	117,693	7.2
	Innsbruck-Land		145,908	151,108	155,421	162,453	7.5
Tiroler Unterland	Kitzbühel		55,028	57,710	59,357	61,456	6.5
	Kufstein		87,390	90,752	93,987	98,497	8.5
	Schwaz		69,987	72,763	75,167	77,901	7.1
Osttirol	Lienz		50,289	50,810	50,473	50,624	-0.4
Tyrol		589,574	640,375	658,498	676,655	700,427	6.4
Austria		7,584,094	7,798,899	7,953,067	8,020,946	8,265,925	3.9
% of state		7.8	8.2	8.3	8.4	8.5	

Sources: Statistik Austria and Landesstatistik Tyrol; the Austrian and Tyrolean data are based on different points of time in the year, but this has no influence on the basic trend. The apparent dip in the population development of the city of Innsbruck during the second half of the 1990s has only administrative reasons.

The population figures of Table 4.2 give us a first indication of the economic prosperity of different sub-regions, which is linked to the immediate migration dynamics. Whereas the most north-western (Reutte) and south-western parts (Landeck) show a below average, but still positive population development, this remains constant for Lienz/Osttirol, where peripherality and associated structural problems are most prevalent. The highly touristy districts Imst, Innsbruck, Kitzbuehel, Kufstein, and Schwaz show an increased population of around seven to eight percent during the last decade. A large share of in-migrants originates from Germany.³⁸ Especially those working in the tourism industry are from the eastern parts. Due to a steady population rise, Tyrol takes an increasing share of Austria's population overall.

³⁷ http://www.statistik.at/web_de/statistiken/bevoelkerung/demographische_masszahlen/demographische_indikatoren/index.html

³⁸ http://www.statistik.at/web_de/statistiken/bevoelkerung/wanderungen/internationale_wanderungen/index.html

4.1.2 Major Socio-Economic Trends

The Gross Value Added (Table 4.3) shows us that the main economic activities take place in the larger Innsbruck area and the Tiroler Unterland. During the last decade since EU accession, one can observe a substantial rise in GVA in Außerfern and the Tiroler Ober- and Unterland by 50 to 60%. Osttirol, and interestingly also the capital region Innsbruck show only a medium rise in GVA of more than 30%.

This economic basis is mainly generated from the service sector (70.1% in 2005) and the secondary sector (28.7%), and both increased substantially since EU accession. The primary sector accounts for only 1.2%; its development has been volatile with a considerable drop soon after EU accession when the subsidy schemes had been adjusted to EU rules, then a rise over some years, which was followed again by a drop in 2005. The implementation of the CAP reform resulted in a severe decrease in subsidies on products in 2005 and thus also in a strong decline of the agricultural Gross Value Added at basic prices (Statistik Austria, Regional Accounts).

Table 4.3 Gross Value Added at basic prices by NUTS 3 region and by sectors, 1995 - 2005, million EUR

NUTS3	1995	1997	1999	2001	2003	2005	% change 2005/1995
Außerfern	613	626	696	777	864	983	60.4
Tiroler Oberland	1,606	1,648	1,795	2,032	2,294	2,472	53.9
Innsbruck	6,053	6,139	6,629	7,288	7,469	8,078	33.5
Tiroler Unterland	4,330	4,501	4,949	5,521	6,175	6,631	53.1
Osttirol	744	760	818	876	889	1,010	35.8
Sectors							
Primary	241	222	230	229	244	227	-5.8
Secondary	3,858	3,783	4,227	4,632	5,077	5,498	42.5
Tertiary	9,248	9,669	10,429	11,635	12,370	13,450	45.4
Tyrol	13,346	13,675	14,886	16,495	17,691	19,175	43.7

Source: Statistik Austria, Regional Accounts³⁹

Table 4.4 shows that much of the growth effect in Außerfern is based on industry (+97% within a decade) where a few medium to large companies created a considerable demand for labour through their growths, which could eventually only be satisfied with employees from neighbouring Germany as this is physically closer than the remaining Tyrol. But at the same time, it succeeded also to increase its share in the service sector, mainly expanding

³⁹ http://www.statistik.at/web_en/statistics/national_accounts/regional_accounts/nuts3-regional_gdp_and_main_aggregates/029763.html

its tourism appeal. The Innsbruck region denotes a minus in the primary sector, a somewhat below average increase in industry, and the relatively weakest performance in the large tertiary sector, containing much of Tyrol's public administration, education, etc. On top of the minus in agriculture, Osttirol shows also a somewhat weak performance in the secondary sector with plus 30%. The development of the tertiary sector is quite satisfactory, though.

Table 4.4 Gross Value Added at basic prices by sector and NUTS 3 region, Tyrol, 1995 - 2005, million EUR

Primary sector

NUTS 3	1995	1997	1998	2000	2001	2002	2003	2004	2005	% change 1995/2005
Außerfern	15	15	15	13	13	14	13	12	15	0.0
Innsbruck	56	51	56	52	53	56	55	46	48	-14.3
Osttirol	23	20	25	24	24	24	24	20	20	-13.0
Tiroler Oberland	41	39	43	37	37	36	37	32	31	-24.4
Tiroler Unterland	106	97	107	98	102	115	114	109	113	6.6

Secondary sector

Außerfern	219	226	233	273	287	368	363	366	431	96.8
Innsbruck	1,500	1,434	1,498	1,732	1,794	1,773	1,814	1,866	1,994	32.9
Osttirol	254	250	260	272	279	284	290	308	330	29.9
Tiroler Oberland	353	350	379	407	435	460	473	472	481	36.3
Tiroler Unterland	1,531	1,524	1,612	1,786	1,835	1,975	2,137	2,132	2,263	47.8

Tertiary sector

Außerfern	379	386	410	448	477	471	488	516	538	42.0
Innsbruck	4,497	4,654	4,860	5,326	5,441	5,446	5,599	5,777	6,036	34.2
Osttirol	467	490	508	574	573	564	575	596	660	41.3
Tiroler Oberland	1,212	1,260	1,337	1,471	1,560	1,727	1,784	1,891	1,961	61.8
Tiroler Unterland	2,693	2,880	3,049	3,383	3,584	3,847	3,923	4,098	4,255	58.0

Source: Statistik Austria 2008, Regional Accounts

This Table shows us also the structural problems of the remote Tiroler Oberland, with it's next to exclusive reliance on tourism, although this sector performed well. But most endeavours to build up a second footing by increasing the share of industry (through the Structural Funds etc.) have not yet delivered the desired outcomes. The strongest minus in agriculture will probably result from the extreme locations in this part of the province with the highest mountains. Anecdotal evidence also suggests that the real figures might even be higher as some farmers sell their cattle and put e.g. horses on the land so that they can still claim agricultural subsidies, but reduce the workload and lease some land to the tourism industry. The Tiroler Unterland makes the most solid impression besides the Außerfern. A top result in tourism is matched by a nearly equally well performing industry, and even agriculture shows an increase, probably because they have higher cattle stocking numbers and more flat land to benefit from recent positive price developments.

GVA per capita in Table 4.5 confirms the remarkable progress of the Außerfern region, which propelled itself from a below Austrian average level just after EU accession to be nearly 15% above Austrian average by 2005, coming out top of all Tyrolean NUTS3 regions. Osttirol, being also a Structural Funds beneficiary, shows here a relative better development than in the total GVA figures because its population stayed about constant during the last decade. A 36% rise means here an above-average performance when compared to Tyrol and Austria as well. Still, the Tiroler Ober- and Unterland were substantially ahead, thus widening the gap as these started already from higher absolute levels after EU accession. The most substantial economic region, the centre including the city of Innsbruck shows again a surprisingly lower increase, losing out over time not only in comparison with all other Tyrolean regions, but also with the Austrian and the EU27 averages.

Table 4.5 GVA per capita, Tyrol NUTS 3 level, Austria and EU27, 1995 -2005 (€ per person at basic prices)

	1995	1997	1999	2001	2003	2005	% change 2005/1995
Außerfern (€)	19,927	20,166	22,233	24,723	27,137	30,772	54.4
- as % of Austria	100.2	97.0	99.4	102.1	108.0	114.8	
- as % of EU27	151.2	138.6	140.4	140.0	146.4	153.6	
Innsbruck (€)	23,185	23,533	25,131	27,320	27,505	29,293	26.3
- as % of Austria	116.6	113.2	112.4	112.8	109.5	109.2	
- as % of EU27	175.9	161.8	158.7	154.7	148.4	146.2	
Osttirol (€)	14,700	14,958	16,154	17,277	17,635	20,004	36.1
- as % of Austria	74.0	72.0	72.2	71.3	70.2	74.6	
- as % of EU27	111.5	102.8	102.0	97.8	95.1	99.8	
Tiroler Oberland (€)	17,319	17,430	18,777	21,069	23,415	24,913	43.8
- as % of Austria	87.1	83.8	84.0	87.0	93.2	92.9	
- as % of EU27	131.4	119.8	118.6	119.3	126.3	124.3	
Tiroler Unterland (€)	19,948	20,346	22,086	24,336	26,747	28,234	41.5
- as % of Austria	100.4	97.9	98.8	100.5	106.4	105.3	
- as % of EU27	151.3	139.9	139.5	137.8	144.3	140.9	
Tyrol (€)	20,462	20,767	22,372	24,538	25,916	27,698	35.4
- as % of Austria	102.9	99.9	100.0	101.3	103.1	103.3	
- as % of EU27	155.2	142.8	141.3	138.9	139.8	138.2	
Austria (€)	19,878	20,788	22,365	24,223	25,128	26,815	34.9
- as % of EU27	150.8	142.9	141.3	137.1	135.6	133.8	
EU27 (€)	13,182	14,546	15,833	17,662	18,534	20,036	52.0

Source: based on Department of the Federal State Government of Tyrol⁴⁰; Statistik Austria, Regional Accounts; and Eurostat⁴¹

⁴⁰ www.tirol.gv.at/fileadmin/www.tirol.gv.at/themen/zahlen-und-fakten/statistik/downloads/bev_meld.xls

⁴¹ http://epp.eurostat.ec.europa.eu/portal/page?_pageid=0,1136184,0_45572595&_dad=portal&_schema=PORTAL

The total Tyrolean GVA per capita compares favourably with the Austrian average. Although Tyrol experienced a slight dip in the first three years after EU accession, it finally caught up again after the turn of the millennium and is three percentage points above the Austrian average from 2003 onwards. While the Austrian GVA per capita was 51% above the EU27 in 1995, this decreased to 34% eleven years later. This suggests a catching up process in new EU Member States which seems to be comparable to the development in Außerfern in terms of dynamics. For all other regions the gap has narrowed, and Osttirol even fell behind the EU27 average in absolute terms. In comparison to the remaining Tyrol, Osttirol shows a relative better development than in the total GVA figures because its population stayed about constant during the last decade. The Tiroler Oberland, also Structural Funds supported, defended its relative position by reducing its lead from 31 to 24 percentage points. Judging from the earlier table, this is mainly due to the dynamics in the tourism sector, and less so also from industry, of which parts will also include the SF subsidies, which are part of the GVA.

Table 4.6 force in Tyrolean Agriculture, NUTS 3 level, 1995-2005

	1995	1997	1999	2001	2003	2005	% change 2005/1995
Außerfern	800	600	600	600	600	600	-25
Innsbruck	3,600	3,300	3,200	3,300	3,400	3,300	-6
Osttirol	2,400	2,300	2,100	2,000	1,900	1,900	-21
Tiroler Oberland	3,500	3,000	2,900	2,800	2,600	2,600	-26
Tiroler Unterland	7,100	6,600	6,700	6,400	6,400	6,400	-10
Tyrol	17,400	15,800	15,500	15,100	14,900	14,800	-14
Austria	219,800	206,800	198,700	187,100	184,800	178,400	-17
Tyrol in % of state	7.9	7.7	7.7	8.0	8.0	8.2	
Employment rate Tyrol (%)	16	17	17	19	19	20	
Employment rate Austria (%)	13	14	15	16	17	17	

Note: Labour force captures employed and self-employed; based on full-time equivalents due to the high share of family part-time workers.

Source: Statistic Austria, Regional Accounts (as per 18/12/2007)

The above table shows that labour productivity has increased over the period except in Innsbruck. A certain GVA could be produced with less labour input. Overall, the largest reduction came soon after EU accession, indicating a structural adjustment of Tyrolean holdings, either trying to improve the productivity with technology or moving from full-time to part-time farming. As one needs to think here in alternative employment possibilities for ex-farm workers, it appears that the reduction is particularly distinct in regions where tourism and/or industry were developing best. In comparison with Tyrol, the reduction was even somewhat more pronounced in Austria as a whole.

The self-employment rate is very high, but decreased slightly since EU accession (in 2005, 80% of people working in agriculture in Tyrol and 83% in Austria). The Tyrolean figures are

a little lower because they manage somewhat larger holdings, and especially the higher share of forests will contribute to more employment contracts. Also the on-farm diversification for example into farm holidays will contribute somewhat to this effect.

Table 4.7 Employment and unemployment in Tyrol, NUTS3, year 2006

	Austria	Tyrol	Außerfern	Innsbruck	Osttirol	Tiroler Oberland	Tiroler Unterland
Employees 2006* ('000)	3,281.00	286.89	12.37	138.32	14.05	41.41	91.11
Difference to 2005 (%)	1.6	2.2	-1.7	1.8	3.6	8.4	4.3
Employment structures 2006							
Primary sector (%)	...	1.2	1.3	1.1	2.3	1.1	1.2
Secondary sector (%)	...	28.7	36.8	25.8	34.3	21.4	30.8
Tertiary sector (%)	...	70.1	61.9	73.1	63.4	77.5	68.1
Unemployed 2006 ('000)	239.00	16.7	.70	5.37	1.91	3.46	5.25
% female unemployed	43.1	47.1	54.4	42.4	50.5	47.7	49.3
Unemployment rate 2006 (%)	6.8	5.5	4.9	4.3	9.6	8.5	5.1

Source: AMS 2006, WIFO 200842. Note that this calculation is according to the Austrian method, which results in a higher unemployment rate than the one used on EU level. *Yearly average of monthly calculated employees by AMS.

The unemployment rate in Tyrol (5.5%) is well below the Austrian average of 6.8% (this equals 4.4% calculated with the EU method), but female unemployment takes a higher share than in the remaining Austria (Table 4.7). Within Tyrol, Osttirol shows the relatively highest share of employment in the primary sector (2.3%) and about double the unemployment rate of the economically more powerful regions. The Tiroler Oberland shows here also structural weaknesses with an unemployment rate of 8.5%. Osttirol and Außerfern have the lowest employment shares in the tertiary sector, indicating its lower reliance on tourism. Overall, the relatively favourable unemployment figures for Austria are partly based on a low participation rate of people aged 55-64 (Austria: 37% in 2006, Germany: 55%, UK: 59%, EU15: 49%)⁴³, for which early retirement was made relatively easy. A further explanation is that Austria benefited from the accession of the new EU Member States, with some of which it has a comparative advantage of common history. This was used to enter these markets early in the 1990s. For Tyrol, linkages with the buoyant northern and southern neighbours are traditionally somewhat more important than the east-west axis.

Table 4.8 Employment Population and labour supply (census 1991 and 2001)

	Tyrol	Austria
Population 2001	673,504	8,032,926
Difference in % 1991-2001	6.7	3.0
Caused by natural population growth in % 1991-2001	4.6	0.9
Caused by migration in % 1991-2001	2.0	2.2

⁴² <http://www.wifo.ac.at/>

⁴³ <http://stats.oecd.org/wbos/Index.aspx?usercontext=sourceoecd>

Employment 2001 (self-employed and employees)	320,314	3,860,735
Difference in % 1991-2001	8.9	4.8
Share of employees in % 2001	88.2	88.8
Labour force participation rate (in % of 15-65 years old male and 15-60 years old female population)		
Total 1991	70.6	72.8
- Female 1991	57.8	63.4
- Male 1991	82.4	81.4
Total 2001	72.6	74.2
- Female 2001	63.4	67.7
- Male 2001	81.0	80.1
Total 2006*	77.9	77.3
- Female 2006*	70.1	72.0
- Male 2006*	85.2	82.1

Source: AMS 200644; * estimation by ÖIR.

Between 1991 and 2001, the Tyrolean population increased due to its birth rate and positive in-migration, and grew stronger than Austria as a whole. Also employment figures were over-proportionally higher, but the self-employment rate was only slightly up. The share of the population participating in the labour market was traditionally lower than in Austria taken as a whole, but surpassed the Austrian average in 2006. The reason is mainly that more women have entered the labour market, who nearly caught up with the Austrian average (70 vs. 72%), but still lag behind male labour force participation (85.2%).

4.2 Agriculture and Rural Development in Tyrol

Although agriculture contributes a very small share of the economic output of the region, there are several good reasons why it fulfils important functions for its wellbeing. Tyrolean agriculture, as in most mountain areas in Europe, has a central role in maintaining the cultural landscape. This is provided by farmers performing multifunctional services such as cultivating their land, not last to keep the appeal for tourism and local population beyond the food production aspect, maintaining forests to protect settlement areas in the Alps, secure biodiversity on otherwise wooded land, preserving cultural heritages in the area, and increasingly also providing services offered during the diversification processes farmers explore these days. Especially in farming populations in the mountains where the question is often whether farmers seek off-farm employment to support their livelihood and/or explore other income possibilities, diversifying livelihoods is increasingly linked to their holding like with farm holidays, hospitality outlets, maintaining nature trails, adding value to forestry products, or processing and marketing of their own foodstuff, etc.

After EU accession in 1995 and the phasing out of the digressive payments, Tyrol experienced a strong decrease in farm numbers (especially those managed part-time) as

⁴⁴ http://oi000004.host.inode.at/bezbul_html/7/tab_002.html

did Austria as a whole (Table 4.9). Around 4,000 farmers or 19% stopped farming or merged holdings during the eleven years after accession. Recently, this sharp decline slowed considerably. It is suggested that the structural adjustment slowed down with those farmers remaining who still see a future for their farm within the EU framework. Plus, stable or somewhat increasing cattle prices and world food market prices for staples on the rise will also have a positive effect on farms to stay in business. It would be interesting to investigate whether CAP reform 2003 with the SPS also has an effect on this development. As a long-term trend, farm exits are more pronounced on the Austrian level. As a result, the share of Tyrolean farmers has increased from 6.4% in 1970 to 8.9% in 2005.

Table 4.9 Full-time and part-time agricultural holdings, Tyrol, 1970-2005

	1970	1990	1995	1999	2005	% change 2005/1995	% change 2005/1970
Full-time farms	13,578	6,572	5,302	4,929	4,658	-12	-66
Part-time farms	9,385	12,478	13,417	11,516	10,396	-23	-11
Group holders and legal persons	637	688	2,002	1,793	1,791	-11	181
Tyrol	23,600	19,738	20,721	18,238	16,846	-19	-29
Austria	367,738	281,910	239,099	217,508	189,591	-21	-48
% of Austria	6.4	7.0	8.7	8.4	8.9		

Source: Statistik Austria, Agrarstrukturerhebung 1995, 1999, 2003 and 2005 Land- und forstwirtschaftliche Betriebszählung 1970, 1980 und 1990, in: Tirol 2006. Note: minimum farm size considered: 1990 - 1 ha total area; 1995-2005 - 1 ha UAA or 3 ha utilised forestry area. Hence, comparison with 1990 need to be cautious as the survey methodology is different.

Only 38% of agricultural holdings were managed full-time in 2005. Thus, the majority of farmers have other gainful activities, either closely associated with farming in the sense of multifunctionality and/or contractual employment in this or other industries (e.g. forest or tourism related). Because the extreme topography of the Tyrolean Alps and their influence on productivity, it is rather important to take the location of farms into account when reporting socio-economic and other farm data (also because different subsidy levels are associated with these). Thus, some of the following tables are presented along the Mountain Farm Cadastre (MFC) which defines groups of farms with certain levels of handicap that define the severity of disadvantage farmers experience in cultivating their land based on several criteria, but mainly due to the gradient of their fields.⁴⁵ A more long-term perspective confirms that it was possible to retain more farmers in the Tyrolean Alps than in Austria in general: approximately 70% of the holdings in 1970 are still in business in Tyrol, only 50% of which in Austria.

⁴⁵ MFC-groups are defined as follows: 0 = 0 MFC points, 1 = 1 bis 90 points, 2 = 91 to 180 points, 3 = 181 to 270 points, 4 = 270 points and more. Theoretical maximum is 570 points (Lebensministerium 2007b).

Table 4.10 Output, costs and public subsidies from agriculture and forestry along groups of MFC handicap farms, per holding in 2005 and 2004, in EUR

Year 2005	Number of eligible farms (2006)	Total output	Total costs	Public subsidies	Public subsidies as % of output	Public subsidies as % of net income
Group 0 (flatland)	1,395	55,939	39,995	11,988	21	75
Group 1	2,183	68,835	45,549	15,599	23	67
Group 2	3,062	58,124	37,680	15,220	26	74
Group 3	3,034	53,986	34,254	15,724	29	80
Group 4 (severe)	2,660	45,241	29,149	17,208	38	107
Tyrol	12,334	56,332	36,932	15,391	27	80
Austria	101,930	68,885	49,042	16,712	24	84
Year 2004						
Tyrol		52,986	35,722	14,403	27	83
Austria		67,211	47,829	15,677	23	81

Source: Tirol 2007a and Lebensministerium 2007b; (net income = total output - total costs)

Public subsidies account for 27% of output of Tyrolean farms, which contrasts 24% in Austria (80% and 84% of net income respectively). This share rises considerably with increasing handicap. This result just underlines the suggestion that not many farmers would be left in the mountains if financial support would stop.

The share of direct payments in family farm income has slightly increased since EU accession (from 23% in 1995 to 27.3% in 2005, see Fehler! Verweisquelle konnte nicht gefunden werden. in Annex).

Table 4.11 Components of total farm income along groups of MFC mountain handicap farms, year 2005 and 2004

Year 2005		Net income from agri. & forestry	Non-agri. income	Transfer payments	Earned income	Total income
		1	2	3	1+2	1+2+3
Flatland	€	15,944	11,610	5,645	27,555	33,199
	%	48	35	17	83	100
Group 1	€	23,286	10,753	4,889	34,040	38,929
	%	60	28	13	87	100
Group 2	€	20,444	5,399	4,700	25,843	30,543
	%	67	18	15	85	100
Group 3	€	19,731	5,369	5,004	25,100	30,104
	%	66	18	17	83	100
Group 4	€	16,092	5,033	6,080	21,125	27,205
	%	59	18	22	78	100
Group 1-4	€	19,874	6,374	5,117	26,249	31,365
	%	63	20	16	84	100
Tyrol	€	19,400	7,006	5,181	26,406	31,587

	%	62	22	16	84	100
Austria	€	19,843	10,666	6,253	31,130	36,762
	%	53	30	17	83	100
Year 2004						
Tyrol		17,264	6,587	5,581	23,851	29,432
Austria		19,381	10,607	6,088	29,989	36,076

Source: Tirol 2007a, with slight corrections.

In Tyrol, the average farm household income stems to 62% from agriculture and forestry (output including subsidies minus variable and fixed costs), 22% is non-farm earnings, and 16% are transfer payments like, for instance, child benefits and pensions. Flatland farmers have the lowest share of agricultural, and the highest share of non-farm income. Table 4.11 shows that this is based on a lower share of subsidies, and a higher contribution by non-farm income. The share of earned income gets lower, and subsidies get higher, the higher the handicap of the farm.

The Tyrolean total farm household income is well below the Austrian average (by 14% in 2005 and by 18% in 2004), and interestingly enough, also the absolute subsidy levels are lower although the average farm is larger in Tyrol (73 ha in contrast to 40 ha total area in 2005, Statistik Austria). Tyrolean farms have Less Favoured Area status, which make them eligible for a separate subsidy pot, but so is a large part of the remaining Austria. The answer lies half in the fact that non-agricultural income is higher outside Tyrol, but also subsidies and transfer payments are higher on Austrian level. Further, this might also be because Tyrolean farmers manage less productive land than in the east and south of Austria.

Table 4.12 Structure and development of the agricultural and forestry production values (incl. subsidies and excl. product-specific duties) 1998 to 2005 (%)

	1998	1999	2000	2001	2002	2003	2004	2005
Animal husbandry	39.8	37.6	43.3	43.8	40.9	41.1	41.1	39.2
Crop production	19.0	20.3	20.5	21.0	19.6	18.7	18.8	19.7
Non-agricultural	15.2	16.0	13.9	11.9	12.7	15.6	14.7	14.1
Agricultural services	1.8	1.9	1.6	1.3	1.7	2.0	1.8	2.3
Agriculture total	75.8	75.8	79.2	78.0	74.9	77.4	76.4	75.4
Forestry total	24.2	24.2	20.8	22.0	25.1	22.6	23.6	24.6
Agriculture and forestry, total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes: Non-agricultural sideline activities: farm holidays, direct marketing, and ancillary business.
Agricultural services: agri. activities for account of a third party, including leases of milk-quota.

Source: Statistik Austria, Regional Accounts, per 25.4.2007. See the Annex for absolute values.

Throughout the years, animal husbandry takes the highest share of total production values, ahead of forestry, crop production and non-agricultural activities. No particular structural developments can be depicted from Table 4.12 as variations appear to be explained with

cyclical fluctuations, indicating that the support system was successful in keeping the production (and thus landscape) patterns as they were. Abandoned land is simply taken over by remaining farmers, and in some cases it is turned into forests. The somewhat high share of non-agricultural activities certainly stands out. Within this category, farm holidays are most important (31% in 2005). Tyrolean farmers are successful in establishing several income streams to support their livelihood, though it seems that the relevant revenue streams have already been established quite some time ago (tourism). Though, from the absolute values in the Annex, we learn that agricultural services did develop somewhat more dynamic than other categories. Here, especially the leases of milk-quota will be of relevance.

Table 4.13 Selected Land use in Tyrolean NUTS3 regions, Census 1999 and Survey 2005 (ha)

Hectares	Außerfern	Innsbruck	Osttirol	Tiroler Oberland	Tiroler Unterland	Tyrol 1999	Tyrol 2005
Tillage	6	4,648	2,008	1,754	3,619	12,035	11,598
Gardens	6	23	27	17	90	163	137
Fruit	0	72	28	80	62	242	138
Grassland	6,384	13,547	10,239	14,445	43,674	88,289	85,356
Pastures	2,844	5,152	7,550	8,990	7,319	31,855	32,533
Mountain pastures	15,459	36,487	55,423	97,433	97,729	302,531	286,897
Non-used grassland	3,414	2,264	4,288	2,812	420	13,198	16,740
Farmland	28,113	62,193	79,563	125,531	152,913	448,313	419,167
Forest area	43,427	70,374	56,173	96,590	168,299	434,863	457,063
Unproductive	22,012	30,151	40,289	150,736	61,968	305,156	325,572
Total	93,552	162,718	176,025	372,857	383,180	1,188,332	1,222,624

Source: Tirol, 2007a

Most cattle rearing is done in the Tiroler Unterland as we can see from the large grasslands in Table 4.13, though much mountain pastures can also be found in the Tiroler Oberland. Naturally, tillage is more prevalent in the flat areas in Innsbruck and the wide valleys of the Tiroler Unterland.

Comparing land use patterns in 2005 and 1999, it can be noticed mainly lower hectares in mountain pastures, but also grassland, and higher cover with pastures, forests and unproductive land, which are largely substitutes. This reflects partly the trend of part-time farmers to introduce suckler cow rearing with the aim to reduce workload. Also, mountain pastures are being afforested.

4.3 Driving (national and EU) forces for rural changes in Tyrol

4.3.1 CAP and Tyrol

The Rural Development Programme has been the most important financial instrument for the Austrian agricultural policy since EU accession. For example in 2006, only 21 percent of the CAP was reserved for the RDP by the EC, when applied to Austrian circumstances, this share increased already to 42 percent, and reached even 63% of total subsidies once the Austrian co-financing is taken into account (Lebensministerium 2007b). 88 percent of this was allocated to the two measures agri-environmental programmes (ÖPUL) and less-favoured areas (LFAs) compensatory allowances in 2006. Tyrolean farmers are eligible for both of these schemes, which were distributed through a relatively complex, but generally as fair seen allocation scheme taking into account the relative disadvantage of farms and their contribution to produce environmental benefits.

The multitude of measures covered by the Austrian rural development programme (see chapter 3.2), and the early implementation of important parts of it in Austria even lead Sinabell (2004) to conclude that the 2nd pillar of the CAP had already been implemented in Austria ahead of its time. The reason lies in the need of farmers in less-favoured areas to develop alternative income possibilities to support their livelihoods. The strategy for farmers in such areas cannot be to compete on price, but instead on quality and by emphasizing agricultural services to be delivered in a wider context to service society, local communities, and in the Austrian mountains also partly tourism. Ideally, this is integrated into an overall strategy by rural communities where potentials for collaboration between different stakeholders/industries are initiated (formalized nowadays in the LEADER programme). This had partly been recognized by Austrian politicians already before the accession to the EU, and first support programmes were implemented in the 1970s to support mountain farmers, and later also to support environmental services by farmers. Already in the late 1980s, some Austrian provinces introduced financial support for the conversion to organic farming, which was of course particularly attractive for farmers in the mountains, whose farming techniques were not too distant from this in the first place. Combined with an environmentally aware public who was prepared to spend a bit more on high quality food plus being a prime tourism destination, many Austrian mountain farmers including Tyrolean ones subscribed to these subsidy schemes. This strategy was then even reinforced during and after EU accession, and the agri-environmental scheme (ÖPUL) takes now the largest part of CAP payments to Tyrolean farmers (Table 4.14). Some of the Austrian support schemes could be transferred into the CAP with minor adjustments, thus facilitating the 'institutional memory' and already established routines between central and regional administrations, and farmers. The Austrian schemes were already successful before accession, e.g. the largest part of organic farmers had already joined the organic farming scheme before EU accession (15,000 compared to about 20,000 in 2005). The Single Payment Scheme (SPS) is tied to keeping with standards on the environment, food safety, animal health, and animal welfare. Also, the utilized agricultural area needs to be kept in good agricultural and ecological condition and permanent grassland needs to be maintained (cross compliance).

Table 4.14 shows us the immediate effects of the CAP 2003 reform on Tyrolean farmers. Decoupling and partial decoupling lead to a budget shift from product premiums to the SPS in Pillar I. Milk is decoupled from the year 2007 onwards. The following categories will remain coupled: Suckler cow premium (100%), slaughter premium calves (100%), slaughter

premium bovine adults (40%), hops payment (25%).⁴⁶ In 2005, the Single Payment Scheme accounted already for 46.5% of Pillar I payments. The payments from the Rural Development Programme increased constantly since EU accession, and especially between the two programming periods. Agri-environment is (already) traditionally the most important category, though LFA compensatory allowances were considerably increased during the second programming period. Also LEADER payments increased over time. The most important of the twelve measures of ÖPUL Tyrol were (ranked according to their volume): support of mountain pasturing, abandonment of yield-increasing inputs on grassland and arable land, organic farming, maintenance of cultural landscapes, and the basic measure.

Table 4.14 CAP payments to Tyrolean farmers, 1995-2005, million EUR

	1995	2000	2001	2005
Pillar 1 - Market support and direct payments (EAGF), total	28.41	17.24	20.48	28.51
Of which Single Payment Scheme				13.28
Milk premium				6.82
Arable aid	1.41	1.18	1.21	
Animal premiums	11.84	16.06	19.27	8.41
Digressive payments	15.16			
Pillar 2 - Rural Development Programme (EAFRD), total	78.01	81.19	110.71	112.09
Axis 1 - Investment, succession/start-up premium, training, etc.	1.44	3.43	5.11	6.77
Axis 2 -				
Agri-environment (ÖPUL)	42.68	44.23	49.14	50.62
LFA compensatory allowances	33.89	31.07	48.04	46.60
Axis 3 - LEADER (Art. 32, Art. 33, 5b)		2.46	8.42	8.10

Source: Landwirtschaftskammer Tirol 2007a, Grüner Bericht and AMA. With some amendments. LEADER is already presented here under the CAP heading, although it formally is only part of it from 2007 onwards.

Table 4.15 shows that Tyrolean farmers, despite their larger holdings in terms of hectares generate somewhat lower SGMs than the national average. Nearly 80% of farms are in the first three size classes up to approximately €15,000. The Austrian average is about 75% for the same size categories. Farmers up to 7,000 Euros receive a relatively lower share of subsidies, whereas nationwide, this is even true for farms up to 15,000 Euros. It appears that Tyrol has implemented a somewhat flatter, and perhaps also fairer, allocation formula for subsidies. The average subsidies per farm are similar to Austria as a whole except in the largest category.

Table 4.15 Distribution of total subsidies along farm-size categories, Tyrol and Austria, 2006

Size class (in EUR)	Number of farms receiving subsidy	%	Total subsidy (in EUR)	%	Average subsidy per farm (in EUR)

⁴⁶ http://ec.europa.eu/agriculture/markets/sfp/pdf/2008_01_dp_capFVrev.pdf

Tyrol					
0 - 3,634	3,209	23.5	6,054,930	4.7	1,887
3,634 - 7,267	3,426	25.1	18,590,556	14.5	5,426
7,267 - 14,535	4,364	31.9	45,181,084	35.2	10,353
14,535 - 21,802	1,678	12.3	29,471,884	22.9	17,564
21,802 - 29,069	613	4.5	15,218,237	11.9	24,826
29,069 - 36,336	218	1.6	7,033,174	5.5	32,262
36,336 - 43,604	79	0.6	3,119,009	2.4	39,481
43,604 - 50,871	30	0.2	1,402,745	1.1	46,758
50,871 - 58,138	13	0.1	704,502	0.6	54,192
58,138 - 65,406	11	0.1	671,482	0.5	61,044
65,406 - 72,673	4	0.03	269,368	0.2	67,342
72,673 -	8	0.06	634,439	0.5	79,305
Total	13,653	100.00	128,351,411	100.0	9,401
Austria					
0 - 3,634	42,669	29.6	68,418,672	4.2	1,603
3,634 - 7,267	26,273	18.2	141,493,923	8.7	5,386
7,267 - 14,535	37,092	25.7	392,337,995	24.3	10,577
14,535 - 21,802	19,175	13.3	340,015,465	21.1	17,732
21,802 - 29,069	9,263	6.4	231,116,661	14.3	24,951
29,069 - 36,336	4,254	2.9	137,503,035	8.5	32,323
36,336 - 43,604	2,124	1.5	84,196,782	5.2	39,641
43,604 - 50,871	1,204	0.8	56,512,470	3.5	46,937
50,871 - 58,138	694	0.5	37,645,705	2.3	54,245
58,138 - 65,406	381	0.3	23,390,153	1.5	61,391
65,406 - 72,673	266	0.2	18,315,212	1.1	68,854
72,673 -	700	0.5	84,520,587	5.2	120,744
Total	144,095	100.0	1,615,466,662	100.0	11,211

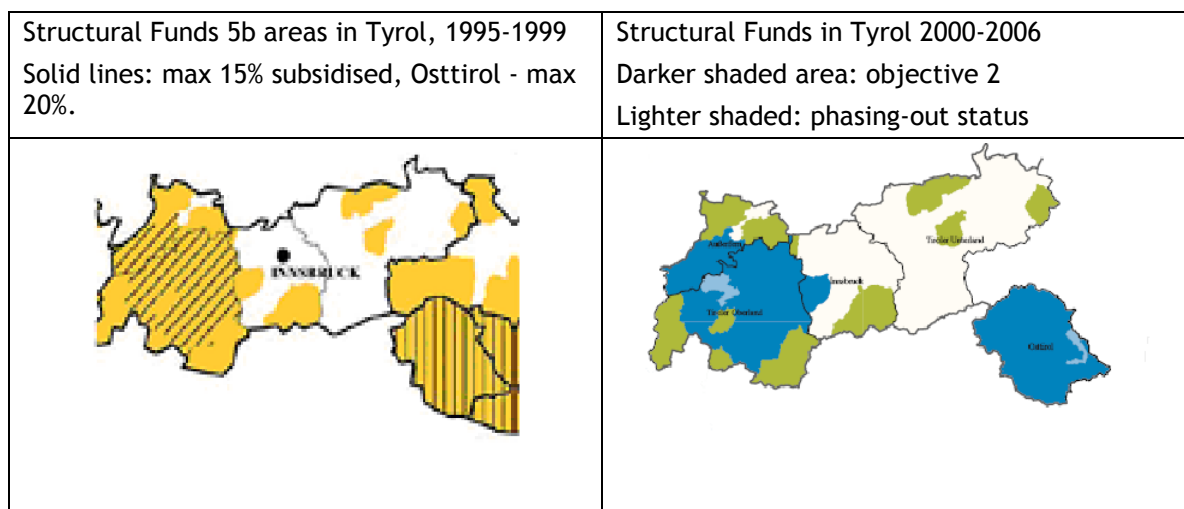
Source: Lebensministerium 2007b, AMA, INVEKOS-data per June 2007; excluding the subsidy category 'other measures'.

Empirical research confirmed that succession problems are still prevailing, which are enhanced by many farmers not being able to find suitable spouses because especially life on a dairy (mountain) farm does often not meet the expectations for life of young women. As the Austrian farmers are the youngest in Europe (Lebensministerium 2007b), the succession problems will be a slowly progressing though continuing factor to push farm exits (about 10% of farmers were older than 65 years in 2005). There are also several initiatives underway to facilitate finding a life partner. Commodity price developments and CAP policy measures have a more immediate and larger scale impact.

4.3.2 Structural and Cohesion Funds and the National Development Plans

During the programming period 1995-1999, the region was partly covered under the Objective 5b programme (rural development). This changed in the programming period 2000-2006, where some of the areas started to be phased out (Figure 4.2), and the remaining regions (Osttirol, large parts of Tiroler Oberland and Außerfern, but also some of Innsbruck Land) received the newly defined Objective 2 status, now covering rural regions with structural problems.

Figure 4.2 ERDF target regions in Tyrol, programme periods 1995-1999 and 2000-2006



Source: OROK, OIR 1999, in: OIR 2003 and CEC 2003b

The population living in the Objective 2 eligible area and the phasing-out area was around 203,900, which is around 30% of the total population in 2000 (123,500 in the remaining Objective 2 area alone - 18%). The programme focussed on 3 priority areas and technical assistance measures.⁴⁷

Priority 1: Aid to enterprises, increasing the attractiveness of the region for businesses. (Start-ups in the industrial sector and related services, service sector; developing existing businesses; developing appropriate premises; encouraging research and innovation; measures in water treatment, environment, and energy).

Priority 2: Tourism, leisure and quality of life. (Young entrepreneurs in tourism and leisure sector; information and communication technology; infrastructure investments for cultural and environmental projects and for measures aimed at preventing natural disasters).

⁴⁷ http://ec.europa.eu/regional_policy/country/prordn/details.cfm?gv_PAY=AT&gv_reg=ALL&gv_PGM=2000AT162DO007&LAN=5

Priority 3: Innovative solutions for regional and environmental problems. (Endogenous regional development via regional management organisations; energy-related environmental projects).

Technical Assistance: (Assistance with management, information, implementation, control and evaluation of all aspects of the programme).

The total cost of the programme 2000-2006 was €216 million, of which €46.6 million were provided by the ERDF, which is overall 21.6%. In the previous programming period Tyrol received €36 million.

Table 4.16 Operational Programme Tyrol and EU Structural Funds Support (ERDF), 2000-2006 (EUR)

Priority area	Total cost	EU contrib.	Public aid (EU + others)	% EU contrib.	% total public aid
1 Promoting businesses and the attractiveness of workplaces; new technologies	102,990,955	17,267,285	27,138,735	16.8	26.4
2 Tourism, leisure and quality of life	86,137,223	23,547,989	44,738,453	27.3	52.0
3 Proposals of innovative solutions for regional problems and environmental issues	25,581,666	5,264,726	11,894,566	20.6	46.5
Technical Assistance	1,148,000	574,000	1,148,000	50.0	100.0
Total	215,857,844	46,654,000	84,919,754	21.6	39.3

Source: http://ec.europa.eu/regional_policy/country/prordn/details.cfm?gv_PAY=AT&gv_reg=ALL&gv_PGM=2000AT162DO007&LAN=5

Thus, considerable amounts of private money could be leveraged for the implementation of the projects, especially under priority 1, promoting business, attractiveness of workplaces, and new technologies. Whereas a high additionality of projects was found during an evaluation of the Structural Funds implementation on the national scale, it was less certain whether these investments could also contribute to lessen the disparities within regions (OIR 2003). This is of course a question that cannot be answered in this report. Judging from the analysis of the NUTS 3 regions from above plus experts' opinion, there were certainly positive developments especially in Außerfern (which was mainly industry led), and to a lesser extent also in Tiroler Oberland. Only in Osttirol, there seem to be somewhat little dynamics.

An as successful perceived implementation of Structural Funds in Tyrol led to the development and still more focussed presentation of a Structural Funds budget for the period 2007-2013, which is again very much embedded in the overall Austrian Structural Funds strategy, and in the Tyrolean reality by implementing a tailor-made, inclusive process in three phases for defining priorities, measures and actions. This led, for instance, to a separate workshop with the focus on gender mainstreaming within Structural Funds implementation, a strategic environmental assessment, and an ex-ante evaluation, which were all incorporated in the final design of the operation programme.

In the new programming period (2007-2013), the primary focus is on improving regional competitiveness, whereby the topics eligible are defined rather narrowly. But in contrast to the former programming periods, the whole province is now target area (Tirol 2007b).

Table 4.17 Total financial support through Structural Funds for Tyrol, 2007 - 2013, ('000 EUR)

Priority area	a	b = c+d	c	d	e = a+b	f = a:e
	Structural Funds	National public	Indicative distribution of national contribution		Total EU & National	% Co-financing
			public	private		
1 Innovation, cooperation and knowledge based economy (business focus)	19,164	19,164	19,164	Not defined	38,327	50
2 Attractiveness of region as location factor (e.g. natural resources and reduction of disparities)	15,109	15,109	15,109	Not defined	30,219	50
3 Technical support	500	500	500	Not defined	1,000	50
Sub-total (ERDF)	34,773	34,773	34,773	Not defined	69,546	50
INTERREG IV Austria - Germany	9,800	3,300	3,300	Not defined	13,100	75
INTERREG IV Austria - Italy	11,500	3,800	3,800	Not defined	15,300	75
LEADER	16,000	16,000	16,000	Not defined	32,000	50
Total	72,073	57,873	57,873		129,946	

Source: Based on Tirol 2007b, and <http://www.tirol.gv.at/themen/tirol-und-europa/eu-regionalfoerderung-tirol/eu-regionalpolitikintiro/>

As we can see from the above table, EUR 72 million of Structural Funds money could be secured to support Tyrol within the seven years of programming period. EUR 35 million are reserved for improving the competitiveness of the region, but also EUR 21 million for territorial cooperation through INTERREG und EUR 17 million for LEADER, the latter actually being part of the rural development agenda of the EC from 2007 onwards, but being presented still under this heading as a matter of convenience.

Table 4.18 Important Community Initiatives in Tyrol, 2000-2006, million EUR

	Total cost	EU contrib.	national contrib.	% EU contrib.
INTERREG IIIA AT-Germany	42.3	21.2	?	50.1
INTERREG IIIA AT-Italy	26.9	13.5	?	50.2
LEADER +	18.5	8.1	3.0	43.8

Source: BKA, Strukturfondsprogramme in Österreich 2000-2006: Finanzielle Umsetzung, Vienna, and personal communication.

INTERREG and LEADER have been the two most important Community Initiatives in Tyrol and they continue to be so. INTERREG is generally seen to have had some success, whereby

initiatives exist all along the southern and northern borders of Tyrol with Germany and Italy, where perhaps Außerfern can be mentioned to be exemplary. LEADER with the still rather recently established Local Action Groups was also seen to be especially successful in Außerfern and in Tiroler Unterland towards the border with Salzburg. For the new programming period, it seems that good initiatives in all eight political districts are secured, thus making the coverage with good initiatives more even. An important aspect in developing a successful programming period is the skilful interaction of a bottom-up and top-down approach, which was initially underestimated as too much weight was given to the bottom-up aspect. This resulted in some instances in some regions establishing projects without interlinking with the main local economic centers; thus not being able to progress in the envisaged manner. This is where some soft top-down facilitation needs to correct for mistakes in the design.

5 Success Factors in Managing Rural Changes since EU Accession

5.1 Overall

Regional policy has a longstanding history in a state organised along federalist principles with relatively strong regional parliaments. This is even truer for a region with mainly mountainous agriculture where public support is seen as a necessity to preserve the cultural landscape with extended mountain pastures. Also, farmers have partly had a buffer function in the labour market for seasonal peaks in tourism and construction industries, which facilitated the preservation of a primarily small-scale agriculture in the mountains, which are part-time management.

Strategically, Tyrol (and mostly also Austria at large) follows the concept of an integrated rural development whereby pluriactivity and the preservation of the environment and cultural landscape are the cornerstones of rural-agricultural development, embedded in a strong regional identity. The three pillars of economic development in Tyrol, tourism, industry, and integrated rural development, are supported by CAP measures (less-favoured areas, agri-environmental measures, cross-compliance, LEADER) and the structural fund measures (innovation focus, interregional cooperation, protection of the environment), which focus, or were adapted to focus, specifically on the needs of a mountainous region. Consolidating the different EU-programmes at the point of delivery in the regions is another important aspect. Such an integrated approach has the potential to create synergies between different policy areas and facilitates interactions with measures in other industries.

An outstanding role in the success of these initiatives can be attributed to the 'governance' structures. Already before EU accession, Austria had very good, though sometimes informal links between national and regional stakeholders, which were (e.g. regional policy) formalised during accession due to the necessities of EU programming structures. EU programmes gave focus and accountability to policy measures which were not there before, and which was seen to be an added value by most stakeholders. In the delivery of programmes and measures, it often paid off to combine administration with responsibility for content and to avoid parallel structures in the localities wherever possible and ensure a pragmatic implementation. This is facilitated by a high degree of retention of key persons in the administration who know each other and the relevant stakeholders in their regions. This also leads to relatively flat structures which meant that shortcuts could be made and learning in the regions was quickened.⁴⁸ A general sense of trust, openness and professional attitude made it possible that sometimes even two administrative units on the provincial level delivered a programme successfully (e.g.

⁴⁸ One interviewee formulated even that the Austrians were often the quickest to give feedback to the EC professionals what did and what did not work in the delivery of programmes due to these flat informal structures. This had sometimes the effect that EU professionals did not understand them right away, but they did once other EU accession countries gave similar feedback a year later... .

LEADER - by the respective agricultural and regional development authorities). Such an 'institutional memory' is seen to be key for new EU Member States to facilitate a successful integrated development of their regions and agriculture, although it is acknowledged that the scale of EU programmes in these countries (2-3% of GDP) poses an extra challenge with which Austria does not have the appropriate experience.

5.2 CAP and Austrian Agriculture

A necessity from an Austrian and especially Tyrolean viewpoint is that keeping farmers on their holdings in mountainous areas is important for several reasons already described above. Every measure that would endanger these holdings to be maintained is seen by stakeholders as a threat for the cultural landscape of the region, which is also the basis for the tourism sector. It is seen that applying the Rural Development Programme was not only successful in keeping farming in the Austrian mountains, but also to develop some infrastructure including biomass projects, village renewal and in forestry, plus positive environmental effects.

Apart from the above mentioned factors, agriculture-specific success factors have certainly been the introduction of digressive payments right after EU accession, structural measures to increase the optimal management of individual holdings, even increased veterinary standards, but also the recent budgetary shift in Pillar 1 is noticed to potentially facilitate an integrated development of agriculture with the remaining economy and society. In contrast to this, some more cautious voices see the introduction of the SPS somewhat critical in terms of keeping farmers to do agriculture in contrast to just providing a minimum service to secure subsidies (e.g. ponies instead of cows on the fields, and leasing land to the tourism industry). In this vein, some argue that the CAP is still not fully appropriate to take account of the realities in the mountains with part-time farming to be prevalent. The effects of the introduction of the SPS can of course not yet be judged. Another criticism is also that some regulations are too specific to be applied sensibly to local circumstances.

The dual-education system (agriculture and one additional profession) and continuing training of farmers is also seen to contribute substantially to the relative success in Tyrolean agriculture. A very distinct and flexible farmer training scheme is still possible, where it is perceived to be positive that the EC still does not put emphasis on standardisation. Thus, it is easy to adapt these systems to local and timely needs. It is also voiced that future amendments any topic should better not be made by creating 'hard facts', via obligatory regulations, because these always create problems in adapting to local circumstances.

A clear and engaging delivery of measures facilitates also pro-active attitudes of different stakeholders, not last by farmers themselves. The vision for the region is seen to lie in even reinforcing the already well working consultancy services in the localities (agricultural chambers), hereby focusing on the local/regional client (more loyal and cheaper to reach), and thus also create regional circular flows in the sense of sustainable development.

All the above-mentioned measures combined are expected to be responsible for the fact that the shift in agricultural structures was actually not that severe than generally expected before EU accession, although a considerable size of farmers (4,000) left the sector.

5.3 Structural Funds, National Development Plans and Rural Development

As already mentioned above, a successfully facilitating administration in the sense of 'governance' is important for the development of regions. This starts with a professional collaboration between the ministries on the nation-state and the regional authorities to elaborate integrated, focused, and pragmatic national development plans, which can then be adapted to regional circumstances. On the regional level, it is important especially in delivering structural change where the activation of local stakeholders to deliver measures on the spot is of utmost importance. In Tyrol, lessons were learnt e.g. from the LEADER approach, where initially, the development was too much bottom-up which resulted to some unused potentials between the localities (e.g. that a larger town close to some leader communities was not integrated in the LEADER activities although it would have made sense to do so). This is now more tight-together into a bottom-up / top-down approach where the authorities have a somewhat stronger facilitating role.

Because rural development as perceived by the CAP 2nd Pillar and Structural Funds are somewhat getting closer in its content, it also important to define concretely the boundaries between the Rural Development Programme and the Structural Funds to secure a smooth implementation. Also some similar delivery infrastructures in the regions are now consolidated to avoid parallel structures (e.g. LEADER action groups and regional management associations). As it makes only sense to have such structures if the smaller region supports them, these are implemented on a voluntary basis. Still, this can be 'facilitated' in certain ways as these organizations exist in every structurally weak region.

Although the development in industry and tourism are most important in Tyrol, complementary support structures can often make a difference on a somewhat smaller scale or create win-win situations with the strong industries (especially if they focus directly on them). For example, although INTERREG and LEADER are in terms of their volume necessarily of relative minor importance, they seem to complement e.g. in Außerfern a strong development in industry, which creates possibilities for cross-regional and other cooperation. On the other hand, the Tiroler Oberland has with its sole reliance on tourism still the problem to build up a second industry because issues of peripherality dominate. Here, INTERREG projects do not find a comparably fertile ground and business relocations sometimes lead to these businesses wondering off again after a few years.

6 Conclusions

This report focused on the development of the socio-economic and agricultural structures in Austria, with a particular attention to the Tyrol region, before and after accession to the European Union. Although a relatively new member of the European Union, Austria's relationship with the Community dates back to the foundation of the Common Market. It is rather difficult to identify with precision what are the effects of the EU integration as some may argue that it was not only the EU membership, but the different integration steps (e.g. the opening-up of Eastern Europe in 1989 and EU enlargement in 2004) and other global factors that contributed to the overall well-being of Austria. Additionally, at the time of accession, Austria was one of the richest nations in Europe, with most of the macroeconomic indicators well above the EU averages. However, there is little doubt that EU accession and participation in the Eurozone have influenced to some extent the social, economic, political and institutional aspects of the country as a whole.

As regards the Austrian agricultural and forestry sector and rural development in general, important changes took place following EU entry in 1995. Prior to accession, agriculture and forestry was highly protected and subsidised; hence adoption of the CAP brought a significant drop of most agricultural products prices, which were somewhat eased by the digressive payments, which also led to a fall of the total level of agricultural income. Agricultural output has also declined and it was not until 2001 that it started to recover slowly. Given the geography and topography of the country, only 17% of total land is arable, whereas permanent pastures and meadows are predominant. These have a significant influence on farm structure. Most Austrian farms are located in LFAs, particularly mountain areas (e.g. 74% of total farms) which make it more difficult to run an efficient agriculture business.

Livestock, particularly dairy and cattle rearing farms are predominant. As in most member states, implementation of the CAP led to a decline of the total number of farm holdings, an increase in the average farm size and specialisation and concentration of production. Most of the farming remains, however, a part-time business, with most of the labour force provided by family members. Women play an important role within the sector, with one in two persons working in agriculture being a woman. Most farms rely very much on subsidies, particularly direct payments, LFAs payments and agri-environmental measures support. The share of direct payments in the farm income has increased over the years. The allocation of these payments varies across farm types and regions, but they are more evenly distributed than in other EU15 member states. An important characteristic of Austria's agriculture is its relatively high number of organic farms, specialised particularly in livestock production. Indeed, the shift towards organic agricultural production took place half a decade before EU accession, when significant public financial resources were oriented to support and encourage such an initiative. Austria ranks first amongst the EU member states regarding the proportion of organic-farmed area, and second (after Italy) in terms of number of organic farms. Most of these farms receive payments through the agri-environmental schemes, organic farming being the most important component of the ÖPUL, Austria's main agri-environmental programme.

As most of the farms are located in the mountain areas the development of pluriactivity and off-farm employment has become a necessity for many Austrian farms, particularly for small-scale holdings. It is estimated that at least one in four Austrian farms practice some other gainful activities. Agricultural diversification and other related activities such as food processing, direct sales or farm-cooperation are important. Processing of agricultural and forestry products (e.g. cheese and wood) and rural tourism are the most significant off-farm sources of income. The “farm holidays” initiative proves to be successful, attracting annually a very large number of tourists. The link between agriculture and tourism is crucial in Austria. Although agriculture has continued to decline in importance within the national economy as a whole, it remains at the centre of Austria’s rural community by maintaining the natural and cultural landscape and the conservation of the environment. Farmers are fulfilling their multifunctional role by performing services such as cultivating their land, maintaining forests to protect settlement areas in the Alps, securing biodiversity, preserving traditions and cultural heritages and providing services for tourism. Although it applies to large parts of Austrian agriculture, especially the livelihood of farmers located in the mountain areas is connected to a diversity of off-farm activities such as farm holidays, hospitality outlets, maintaining nature trails, adding value to forestry products or processing or marketing their own agricultural products. The more this is true for the highly touristic Tyrol region.

Since EU accession, the development of Austrian agricultural and rural development policies follows the directions established in Brussels. The Rural Development Programme has been the most important financial instrument for the Austrian agricultural policy following membership. This is reflected by the distribution of funds between the measures of Pillar I and Pillar II of the CAP, with Austria devoting one of the largest shares of public support of all EU member states to Pillar II. A particular focus is paid to agri-environmental measures and LFA compensatory allowances, which taken together accounts for the majority (e.g. 86% between 2000 and 2006) of total public support allocated for rural development. Some may argue that accession to the EU led Austrian politicians to concentrate on agri-environmental measures. Indeed, the EU agricultural policy made it easier to consolidate and expand Austria’s agri-environmental programmes, but the foundation of a so-called “ecological and social agricultural policy” was laid down during the 1970s and 1980s. In this respect, Austria took full advantages of the EU membership opportunities by considering the agri-environmental measures as the perfect tool to ease its farmers’ transition and safeguard the environment. The ÖPUL programme continues to be at the core of the Austrian agricultural and rural development policies and it remains the main source of public support for agriculture as is shown in the allocation amongst the four Axes for rural development for 2007-2013. ÖPUL is considered to be the key instrument for the development of Austrian rural areas and it is due to these agri-environmental and LFA compensatory payments that most of Austrian mountain farms are still surviving. Additionally, the support provided through the Structural and Cohesion Funds needs also to be considered. Although difficult to identify the effects of the Structural Funds (due to rather spare literature and methodological difficulties) it is believed that following accession to the EU the delivery of an integrated Austrian regional policy was crucial. Public support is seen as a necessity to preserve the natural and cultural landscape in a mainly mountainous agriculture, and the farmers play undoubtedly a significant role in achieving this objective. Moreover, they traditionally have a buffer function in the labour market for seasonal peaks in tourism and construction industries.

The implementation of an integrated territorial approach has been rather successful, whereby pluriactivity and the preservation of traditions and environment are considered the core for rural-agricultural development. However, this would not be possible without financial support (now mainly provided through the CAP and Structural Funds). Additionally, a successfully facilitating administration in the sense of “governance” is also very important for the development of regions (as could be shown in the case of Tyrol). This should start, in the experts’ view, with a professional collaboration between the national ministries and the regional authorities to elaborate integrated, focused, and pragmatic national development plans, which can then be adapted to regional circumstances. In the Tyrol region and the nation state, this was possible through the retention of key persons in administration and the relevant stakeholders in the sub-regions and localities. This led to the creation of a flat (informal) governance structure already before EU accession, which was then more formalized after EU accession through the programming mechanism, and which has helped to deliver successful programmes. The creation of such an “institutional memory” based on trust, openness and professional attitude to facilitate a successful integrated regional and rural development is believed (in the experts’ point of view) as vital for the new member states. Moreover, at the regional level, a clear-cut and engaging involvement of both local stakeholders (bottom-up) and regional authorities (top-down) to develop and implement projects within programmes like LEADER and deliver programmes laid down in national and regional development plans is of utmost importance.

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Annex

Table A.1 Share of Direct Payments in family farm income, Tyrol, 1995-2005

	1995	1996	1998	2000	2002	2003	2004	2005
Income in €	45,953	46,762	50,621	52,974	56,963	52,271	52,986	56,332
Subsidies in €	10,650	11,669	10,990	10,805	14,076	13,388	14,403	15,391
Subsidies in %	23	25	22	20	25	26	27.2	27.3

Notes: A direct comparison between results up to 2002 and after is not valid due to new data bases.

Source: Tirol 2007a

Table A.2 Structure and development of the agricultural and forestry production values (incl. subsidies and excl. product-specific duties) 1998 to 2005; million EUR, current prices - complementary figures to Table 4.12

	1998	1999	2000	2001	2002	2003	2004	2005	% change 2005/1998
Animal husbandry	158.98	147.46	162.41	173.53	172.83	178.5	175.78	176.93	11.3
Crop production	75.84	79.66	76.73	83.14	82.79	81	80.47	88.98	17.3
Non-agricultural sideline activities	60.7	62.91	52	47.13	53.62	67.74	63.09	63.57	4.7
Agricultural services	7.07	7.4	5.86	5.35	7.33	8.84	7.63	10.34	46.3
Agriculture total	302.59	297.43	297	309.15	316.57	336.08	326.97	339.82	12.3
Forestry total	96.84	94.84	78.08	87.2	106.36	98.02	101.11	111	14.6
Agriculture and forestry, total	399.43	392.27	375.08	396.35	422.93	434.1	428.08	450.82	12.9

Notes: Non-agricultural sideline activities: farm holidays, direct marketing, ancillary business. Agricultural services: agri. activities for account of a third party, including leases of milk-quota.

Source: Statistik Austria, Regional accounts, per 25.4.2007.