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MANAGING AGRICULTURAL CHANGE: EVIDENCE FROM IRELAND

"If we hadn't got into the European Union and got access to its markets, very little of what's happened would have happened. But the reason we were successful was that having got in we had the right policies to enable us to do well, so it's conjunction of the two that gives you the success. Outside the EU we were a small country of four million people with no chance of going anywhere. So the union has given us an opportunity, but we've cashed in on it by taking the right decisions at certain key moments. We made lots of mistakes too, but we made enough good decisions to compensate for mistakes."

Garret Fitzgerald, Former Irish Prime Minister (19/05/04)

ABSTRACT

This paper examines key features of Irish agricultural transformation following accession to the European Union (then the European Economic Community). More precisely, it focuses on the trends of agricultural structural changes and the major policy measures that influenced these changes, between 1973 and 2006. It also attempts to identify the major driving forces for managing Irish agricultural (and rural) changes and draws some potential lessons that may be helpful for decision-makers in the New Member States.

Key words: agricultural structural changes**,** agricultural and rural development policies, CAP reforms.

JEL classification: Q10**,** Q18, R11.

1. INTRODUCTION

The Irish rural economy has changed dramatically since accession to the European Economic Community (EEC) and there is little doubt that the Common Agriculture Policy (CAP) has played a pivotal role in the process of adjustment (Walsh, 1993). Prior to joining the EEC Ireland was a poor, agricultural-oriented economy at the periphery of Europe, heavily dependent upon trade with the United Kingdom (UK). On the eve of accession, agriculture's contribution to the economy as a whole accounted for almost 20% of the Gross Domestic Product (GDP) and 24% of the total labour force. However, it was only in 1994 that Ireland's economy began to experience a spectacular transformation and became what is labelled the

"Celtic Tiger"[1]. Ireland has moved from one of Europe's poorest Member States to one of the most affluent ever since. Undoubtedly, its economic miracle is attributed to a combination of both internal and external factors and driving forces that occurred in a favourable environment (OECD, 1999; Dorgan, 2006).

Recently (in 2004 and 2007) ten more countries from Central and Eastern Europe (CEE) joined the European Union (EU). The majority of these New Member States (NMS) are much poorer than other EU members, but have embraced membership with the hope that one day they too may become the 'tigers' of Eastern Europe.

This paper examines key features of the Irish agricultural transformation following accession to the EEC. More precisely, it focuses on the trends of agricultural structural changes and the major policy measures that influenced these changes, between 1973 and 2006. It also attempts to identity the major driving forces for managing Irish agricultural (and rural) changes and draws some potential lessons that may be helpful for decision makers in the NMS.

The paper draws heavily on work carried out within the SCARLED[2] project, particularly the case study of Hubbard and Ward (2007), 'Development of socio-economic and agricultural structures in selected rural regions in Ireland after EU accession', Working Paper, D8.2. This involved desk-based research and a review of key policy and evaluation documents, supplemented with telephone interviews with key informants. Nine individuals were consulted between September and December 2007 coming from academia, rural development consultancies and government departments. The telephone interviews were structured around four major topics: (i) main factors/driving (local and external) forces for changes in Ireland's rural areas since accession; (ii) the importance of national and regional policies and their effect on rural Ireland; (iii) the role of EU membership and EU policies, particularly the CAP; (iv) missed opportunities and lessons to be learned for the New Member States.

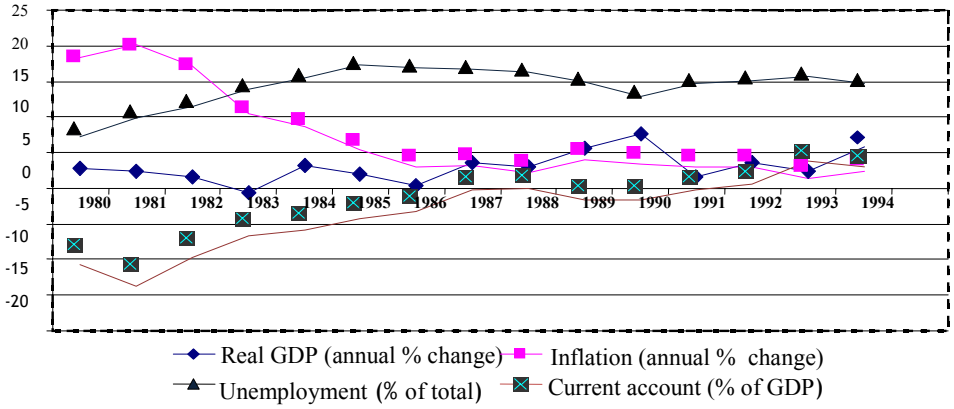
The paper is organised as follows. The next section describes briefly the macroeconomic context and the role played by agriculture within the Irish economy as a whole, following accession to the EEC in 1973. Section 3 focuses on the development of the agricultural sector and the main agricultural policy measures that influenced changes in rural transformation. The driving forces for managing rural changes since accession are presented in Section 4, followed by some concluding remarks and possible lessons of best practice in rural development in Section 5.

[1] The term was used for the first time in 1994, by the UK economist Kevin Gardiner, Head of Global Equity Strategy at the Investment Banking Unit of HSBC, who compared Ireland's unexpected economic boom to the Asian tiger economies.

[2] Structural Change in Agriculture and Rural Development, a Framework Six Programme, funded by the EU; http://www.scarled.eu/publications/deliverables.html

2. MACROECONOMIC CONTEXT 1973–2006

Agricultural changes in Ireland have to be understood in the context of wider changes in the Irish economy. Ireland joined the EEC in January 1973, together with the UK and Denmark, as part of the first enlargement. This followed two unsuccessful attempts in the 1960s when France refused to endorse proposals for British and Irish accession. Radical changes in policies (e.g. from protectionism to free trade), and an encouraging economic transformation that took place during the 1960s (known as the Irish 'golden age'[3]) had a positive impact on the Irish population with regards to accession. Thus, joining the Community was seen by many as a means of increasingly opening Ireland's economy and overcoming its economic dependence on the UK[4]. Moreover, because agriculture was playing a very important role within the economy as a whole (e.g. 24% of the total labour force was employed in this sector, almost twice the EEC average), the prospect of subsidy inflows for Irish farmers, as a result of CAP adoption, amplified interest in and support for accession (Dorgan, 2006). In May 1972, more than 80% of the Irish electorate voted in favour of membership (Galway, Euro Info Centre, 2006). Despite immediate benefits for agriculture, the Irish economy still struggled for almost two decades after accession. Although growth averaged 4% a year between 1974 and 1985 (CEC, 1999), this was accompanied by relatively high rates of inflation and unemployment (Figure 1) and Ireland was particularly hit by the oil crises of 1973 and 1979. Additionally, free trade with continental Europe highlighted how sections of Irish industry were uncompetitive (Sweeney, 1999), and high unemployment and industrial restructuring fuelled a large wave of emigration that reached 50,000 people per year in the early 1980s and particularly featured young people leaving.



Source: Hubbard and Ward, 2007.

Figure 1. Evolution of Main Macroeconomic Indicators, Ireland, 1980–1994.

[3] See Sweeney, 1999 and Ó Gráda 1997.
[4] Over half of imports and two thirds of the Irish exports were with the UK in 1972 (Brady, 1993).

Fianna Fáil, the party largely responsible for the excessive and misguided public expenditure during the 1970s, was re-elected in 1987. Learning from previous mistakes, it embarked on a more austere economic strategy with tight budgetary targets (e.g. severe cuts in expenditure) (Dorgan, 2006; Walsh, 2001). From 1987, economic trends began to improve and the economy boomed from the mid-1990s onwards (Table 1).

Table 1

Real GDP growth (% change on previous year)

	1995	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
Ireland	9.6	8.3	11.7	8.5	10.7	9.4	5.8	6.0	4.3	4.3	5.5	6.0
EU15	…	1.7	2.6	2.9	3.0	3.8	1.9	1.1	1.2	2.3	1.6	2.8
EU27	…	1.8	2.7	2.9	3.0	3.9	2.0	1.2	1.3	2.5	1.8	3.0

Source: Hubbard and Ward (2007).

Between 1995 and 2000, real GDP increased by three-quarters, with average annual growth rates of almost 10%, compared to only 2.8% for the EU15. The boom was primarily a result of high levels of inward investment in high-tech industries and in services, and as a result of favourable (corporate) tax rates. Employment rate significantly increased and unemployment dropped. In 2005, labour productivity, measured as GDP per person employed, was the second highest in the EU-27. In 1991, the Gross Value Added (GVA) per capita in Ireland was 76% of the European average. This rose to 99% by 1995, 132% by 2000 and 142% by 2004. It is this relatively high rate of economic growth, compared to other European countries, which led to Ireland being labelled the "Celtic Tiger". By 2006, Ireland recorded the second highest GDP per capita in the EU-27, after Luxembourg (Table 2).

Table 2

GDP per capita in PPS (EU25=100)

	1995	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
Ireland	97.1	102	108.6	114.8	119.4	123.6	125.4	130.7	133.1	134.1	136.5	136.9
EU15	109	108.7	108.7	108.7	108.6	108.6	108.3	108	107.6	107.2	107.0	106.6
EU27	94	94	94.1	94.2	94.1	94.2	94.3	94.5	94.6	94.7	94.9	95.1

Source: Hubbard and Ward (2007).

In 2005, the Economist Intelligence Unit developed a "quality of life index", which includes not only the GDP per person (well-being) but also eight other explanatory variables[5]. Not surprisingly, Ireland reached the highest score (8.333)

[5] These are: health, political freedom, job security, family life, climate and geography, political stability, gender equality and community life (The World in 2005, www.economist.com).

amongst the 111 countries included in the survey, well ahead the United States (ranks 13 with 7.615) and the UK (ranks 29 with 6.917)[6].

The Role of Agriculture within the Irish Economy

Ireland took its first steps towards economic progress a decade before accession when it advocated free trade and encouraged foreign investment and education. These had significant effects on the development of agriculture and rural development (e.g. increase of land productivity, a decline of the agricultural labour force, a rise in tourism, forestry and fisheries activities). However, at the time of accession, agriculture was still at the core of the economy. Ireland joined the EEC at a time when more than 80% of total Community budget was allocated to agriculture. As farming contributed significantly to the economy as a whole (Figure 2), the adoption of CAP with its high prices and market support for commodities and the opportunity of trading on a larger market were seen as essential for the transformation of the sector. Farming remained very important for the Irish economy until 1989, when its contribution to GDP was still around 10%. As the economy thrived, the role of agriculture diminished. Currently, the sector contributes 2.5% of the GDP and less than 6% of the labour force.

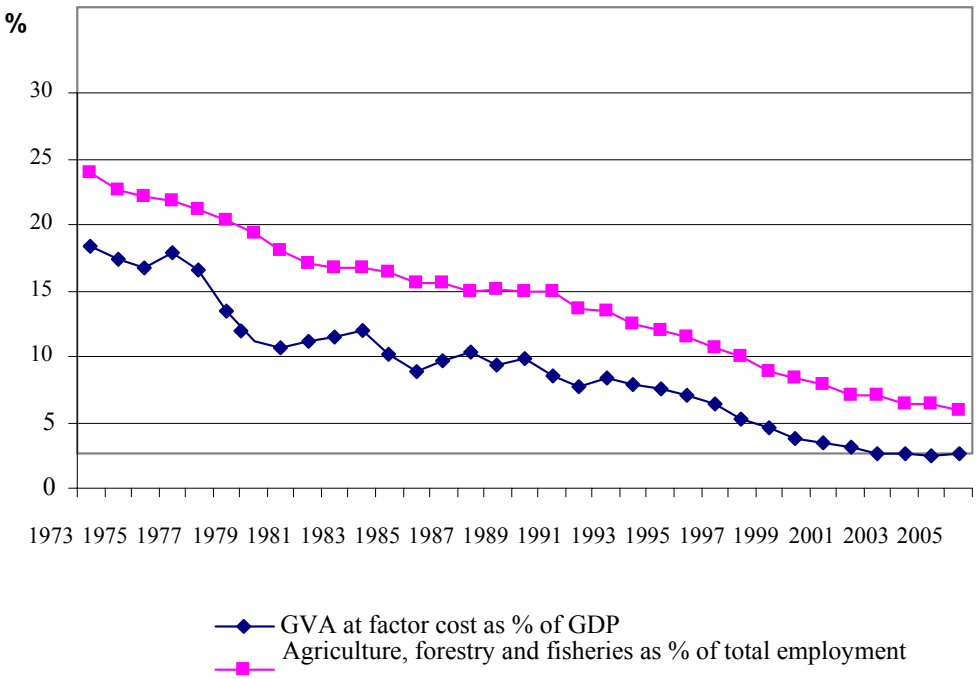


Figure 2 Agriculture's Contribution on the Economy, 1973–2005.

[6] For comparison, EU15 scored 7.504.

3. IRISH AGRICULTURE AND THE CAP, 1973–2006

Ireland's land area accounts for 6.9 million hectares, out of which 4.3 million (64%) is Utilised Agricultural Area (UAA) and 650,000 hectares (9.4%) is forestry. Some 91% of total UAA is used for crops that are used in the livestock sector, mostly pasture and silage (Table 3). Despite a decline by 25% of total UAA between 1980 and 2006, the structure of land use has remained almost constant. The exception is silage, which increased by 58%.

Table 3

Land Use, 1980–2006 ('000 hectares)

	1980	**1991**	**1995**	**2000**	**2004**	**2006**	**% change 2006/1980**
Pasture	2,929	2,249.4	2,237.9	2,218.1	2,218.1	1932.7	-34.0
Silage	0.0	764.7	933.6	1,074.7	1,020.4	1211.2	58.4*
Hay	1,212.8	394.1	357.2	242.6	189.0	264.6	-78.2
Rough grazing	1,008.0	641.9	459.5	506.5	453.5	471.5	-53.2
Cereals	444.8	301.6	273.8	279.0	310.2	279.8	-37.1
Other	109.8	90.1	126.5	122.2	113.8	100.7	-8.3
Total UAA	**5,704.4**	**4,441.8**	**4,388.5**	**4,443.1**	**4,305**	**4,260.5**	**-25.3**

Source: Hubbard and Ward, 2007.

Ireland's geography and climate offer perfect conditions for livestock, particularly beef and dairy. This sector has a long tradition and a large contribution to agricultural output (Table 4). In 2006, milk and dairy products accounted for 38% of total output, and beef for 33%, as opposed to only 7% for cereals (Department of Agriculture, Fisheries and Food, 2007a).

Table 4

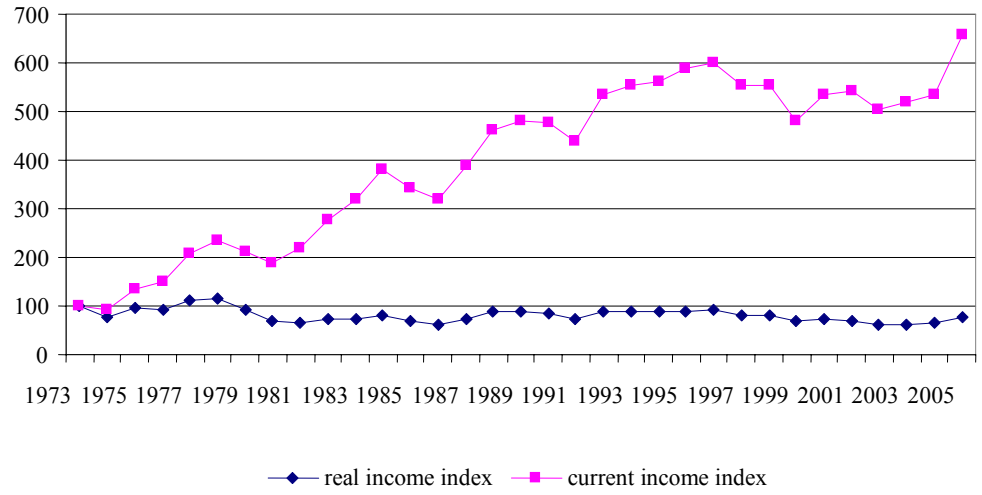
Livestock and Livestock Products as % of Gross Agricultural Output, 1973–2005

	1973	**1978**	**1983**	**1988**	**1990**	**1996**	**2000**	**2002**	**2005**
Total Livestock of which	59.8	53.1	50.6	53.4	47.0	44.9	44.4	42.8	45.8
Cattle	**42.4**	**39.0**	**35.6**	**39.4**	**33.6**	**28.7**	**28.3**	**25.0**	**28.5**
Pig	10.0	7.7	6.8	4.4	5.1	6.9	6.1	6.4	5.9
Sheep	3.7	3.0	3.5	4.4	4.0	4.7	4.2	4.3	3.9
Poultry	2.8	2.1	2.6	2.9	2.5	2.7	2.5	2.8	3.0
Total Livestock Products of which	26.5	33.0	34.6	34.6	29.0	30.5	30.4	30.8	27.8
Milk	**23.8**	**31.6**	**33.3**	**33.5**	**28.1**	**29.8**	**29.6**	**30.0**	**26.9**

Source: Hubbard and Ward, 2007.

The first five years as a Community member (1973–1978) were remarkable for agriculture, and Irish farmers benefited almost immediately after accession. Moreover, in addition to the CAP price and market supports, the sector benefited

from on-farm structural and social policy measures (e.g. modernisation of farms, less-favoured areas payments) and specific off-farm measures such as the drainage programmes in the West and the Border regions. The volume of agricultural output rose significantly and for the first time the Irish farmers enjoyed significant increases in real income (Walsh and Gillmor, 1993) (Figure 3).



Source: Hubbard and Ward, 2007.

Figure 3. Aggregate Farm Income, 1973–2005 (1973=100).

The dairy and beef sectors were the main beneficiaries of CAP subsidies. Almost 90% of total EU funds allocated for Irish agriculture between 1973 and 1979 went to these two sectors (Table 5). Nationally, the agricultural policy focused mainly on increasing the efficiency of production and maintaining the traditional family farms (Leavy *et al*., 1997). Although no major structural changes were noticeable during this five-year period, the distributional impacts of the CAP varied widely across individual farms and regions. Most of the benefits were captured by large dairy and arable crops farms. Walsh and Gillmor (1993, p.87) stressed that these farms also benefited from "investment aids and from infrastructure of research, advice and other services which had developed to support the agricultural sector." Small-scale farms, mainly other livestock (e.g. cattle-rearing, sheep, pig and poultry) or fruits and vegetables, received very little or no support. Often these producers were the vulnerable, such as older or unmarried, widowed or without children, who could not adjust rapidly enough to the new agricultural challenges (Walsh and Gillmor, 1993). Regionally, farms located in the South and South-East, where the quality of soil and climate conditions were more favourable, benefited more, in contrast with those from the West (Lafferty *et al*., 1999).

Table 5

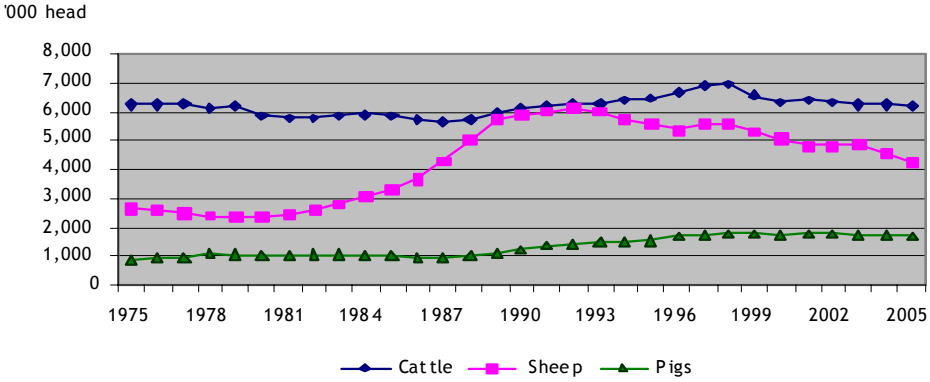
EU Receipts by Sector, 1973–2005

Sector	**1973–1979**		**1980–1989**		**1990–1999**		**2000–2005**	
	€m	% of total	€m	% of total	€m	% of total	€m	% of total
Dairy	848.8	50.9	3,197.5	39.5	3,378.3	20.8	1,221.1	11.3
Beef (and veal)	620.7	37.3	4,369.4	54.0	9,309.5	57.3	5,250.4	48.5
Arable crops (cereals)	49.3	3.0	75.4	0.9	791.5	4.9	657.5	6.1
Sheep	–	–	401.9	5.0	140.5	0.9	517.1	4.8
Sugar	25.6	1.5	109.5	1.4	93.1	0.6	38.1	0.4
Pig meat	31.2	1.9	11.4	0.1	25.2	0.2	7.9	0.1
Poultry and eggs	0.6	0.0	25.5	0.3	13.0	0.1	0.1	0.0
Fruits and Vegetables	3.2	0.2	1.8	0.0	1.0	0.0	20.7	0.2
Total EAGGF Guarantee	1,666.3	100	8,098.9	100	16,234.4	100	10,825.8	100

Source: Hubbard and Ward (2007).

The first half of the 1980s brought new challenges for Irish farmers. The introduction of CAP milk quota (in 1984) and the fall of world prices for agricultural commodities inflicted hardship on the farming community, but particularly on dairy producers. By 1987, the number of dairy cows had dropped to its lowest level since accession, at 5.5 million (Figure 3). Walsh (1995, p. 90) argued that "for rural Ireland this [the introduction of milk quota] was probably the single most important change in the operation of the CAP in the 1980s." In contrast, the creation of the Common Market for Sheep (and goat) meat and the introduction of ewe premia (in 1980) made the sheep enterprise more attractive to Irish farmers. Additionally, the outbreak of "mad cow disease" also influenced this sector favourably, as consumers' demand switched to other meat types, mainly sheep, poultry and pig (Binfiled *et al*., 1998). Between 1980 and 1992, the number of sheep farms rose (from 45,000 in 1980) by a quarter, and the average size of flock more than doubled (from 73 to 162 sheep per farm) (Lafferty *et al.*, 1999). Hence, by 1992, the number of sheep tripled, reaching 6.1 million (Figure 4).

Although the number of total Irish farms has almost halved since accession, the reduction was gradual, with the rate of decline accelerating particularly from the late 1980s. Surprisingly, despite various changes and the pressure for maintaining economic viability (which usually forces farmers to enlarge the scale of their business), the process of farm enlargement was slow and for more than a decade the Irish farm structure remained almost unchanged (Lafferty *et al.,* 1999).



Source: Hubbard and Ward, 2007.

Figure 4. The Evolution of Livestock Number, 1975–2005 (in December).

For example, the total number of farms fell by just 3.4% between 1975 and 1985, but then by 30% between 1985 and 1995. Lafferty *et al.,* 1999 argued that the limitation of farm size represented one of the major structural problems faced by the Irish agricultural sector until early 1990s. This was mainly due to the specificity of the Irish landownership system. Farming in Ireland is traditionally a family business, with land transferred from one generation to the next. This resulted in rigid land tenure and "a virtual absence of long-term leasing and a limited scale of land market" (*ibid*. p.16). As from 1991, the decline in the number of farms accelerated (an average 2,700 farm each year) and the average farm size constantly increased (from 26 hectares in 1991 to 32 hectares in 2005) (Table 6). Perhaps unsurprisingly, the decline has been most marked in the smaller size categories of farms. Farms of less than 30 hectares made up 63% of all farms in 1975, but less than 44% in 2005. Within this category, farms of less than 5 hectares dropped from 15% of all farms in 1975 to less than 7% in 2005 (Table 6).

Table 6

Number of Farms by Size Category, 1975–2005 ('000s)

	Total Farms	**Average size (ha)**	**< 5 ha**	**5–10 ha**	**10–20 ha**	**20–30 ha**	**30–50 ha**	**50–100 ha**	**>= 100 ha**	**% Change**
1975	227.9	22.3	34.4	37.7	70.6	35.8	29.8	15.9	3.7	-
1980	223.4	22.6	34.0	35.4	67.7	36.3	30.3	16.0	3.7	-1.9
1985	220.1	22.7	35.2	34.7	63.8	36.9	29.9	15.9	3.7	-1.5
1991	170.6	26.0	19.2	24.1	48.3	31.0	28.4	15.7	3.9	-22.5
1995	153.4	28.2	14.8	20.5	40.6	29.1	28.1	16.1	4.1	-10.1
2000	141.5	31.4	11.7	16.7	34.3	25.0	29.6	19.5	4.6	-7.8
2001	139.6	31.6	10.9	16.3	33.7	24.8	29.6	19.6	4.7	-1.3
2002	136.5	32.0	10.4	15.8	32.8	24.4	29.1	19.3	4.6	-2.2
2003	135.5	31.7	8.6	19.9	32.1	23.9	28.1	18.5	4.5	-0.7
2005	132.7	31.8	9.2	18.5	30.1	22.5	28.7	19.6	4.0	-2.1

Source: Hubbard and Ward (2007).

Overall, the change in the farm structure led to the concentration, specialisation and intensification of Irish agricultural production. This is mainly reflected in the evolution of the number of specialized farms and their average size, particularly from the early 1990s onwards. Beef production remained, however, the prevailing farming type in Ireland, and this has changed little since 1991. In contrast, the number of specialized dairy farms dropped three times, from 63,000 in 1979 to just over 21,000 farms in 2005 (Table 7). Important changes also took place for pig, poultry and cereals farms, although these commodities have a relatively small contribution to the agricultural output. The production system for pig and poultry sectors has become very intensive, with most of the output produced by very large commercially-specialised companies. For example, at the time of accession, pigs were typically raised on a small scale on a large number of farms (35,700 farms with an average of 29 animals/farm). By 2005, the number of pig farms declined to 800, but the average size rose to around 2,000 pigs (CSO, 2007c).

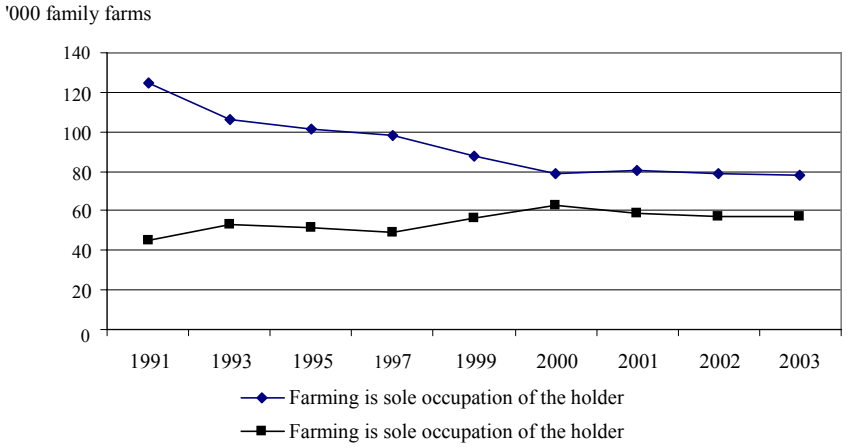
Table 7

Number of specialized farms by farming system 1975–2005 ('000s)

Year	Crop (tillage)	Dairy	Cattle rearing and fattening	Sheep, goats & other livestock	Mixed crop & livestock	Pig and poultry	Total
1975	6.1	57.1	66.4	23.6	11.7	1.8	228.0
1979	11.7	62.8	65.6	22.7	14.4	1.5	233.5
1985	9.6	57.7	75.9	44.6	11.0	1.6	220.2
1991	5.0	41.6	71.8	40.9	4.3	0.8	170.6
1995	4.3	34.4	72.0	30.5	4.0	0.7	153.4
1997	3.7	33.3	73.0	28.2	3.6	0.7	147.8
2003	4.6	24.3	67.7	33.1	3.8	2.0	135.6
2005	4.8	21.2	69.2	32.4	3.5	1.5	132.7

Source: Hubbard and Ward (2007).

Traditionally, farm labour is provided by family members, who account for more than 94% of total labour input on Irish farms. Since the early 1990s, there is a clear diminishing trend in the number of farmers for whom agriculture is the only occupation, as opposed to an increase of part-time farming. The number of full-time farmers decreased fast, at an average rate of almost 4% per year, whereas the number of part-time farmers increased by 2% per year on the average. In 2003, farming was the only occupation of the farm holder in 57% of total farms, as opposed to 75% in 1991 (Figure 5). Part-time farming is also more likely to be taken up by younger people.



Source: Hubbard and Ward, 2007.

Figure 5. Full and Part Time Farm Numbers, 1991–2003.

Previous sections show that agricultural restructuring in Ireland has accelerated from the 1990s onwards. This is mainly due not only to the boom of the economy as a whole, which spread (directly and indirectly) to the rural areas as well, but also to the successive CAP reforms that started in 1992, *i.e.* the MacSharry reform, Agenda 2000 and the Mid-Term Review of 2003. Furthermore, the foundation of the Single Market and the reform of the Structural Funds, in the early 1990s, marked the start of important changes in the Irish regional policy. In order to attract large amounts of EU funds, the Irish government chose to maintain the entire country under Objective 1 status. Although the Structural Funds do not target the development of rural areas, the massive investment in infrastructure, industry, services and human resources (education and training), had effects that spilled over into the rural areas. Overall, between 1973 and 2006, Ireland received around €60 billion from EU membership, with more than half coming from the EAGGF Guarantee and Guidance Sections (Table 8). As Crowley (2003, p. 68) notes, the CAP "has been the main financial and ideological influence on agriculture in the Irish state."

Table 8

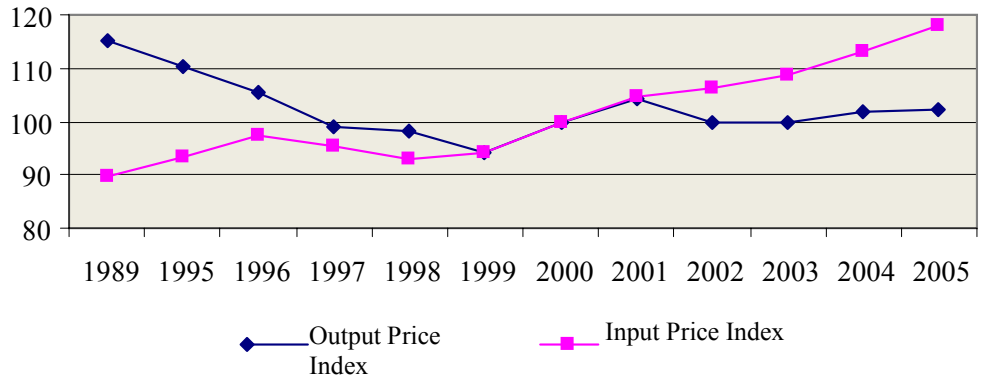
EU Receipts, Ireland, 1973–2006 (€m)

	1973–1979	**1980–1989**	**1990–1999**	**2000–2006**	**Total**
EAGGF Guarantee	1,666.3	8,098.9	16,234.4	12,639.2	38,638.7
EAGGF Guidance	49.3	708.1	1,739.7	219.7	2,716.7
European Social Fund	50.4	1,358	3,387	1,191.8	5,987.2
European Regional Development Fund	38.0	982.2	4,243.1	2,520.3	7,783.6
Cohesion Fund	0	0	1,091	908.9	1,999.9
Other	158.1	402.8	300.9	139.5	1,001.3
Total	1,962.1	11,550	26,996.1	17,619.2	58,127.4

Source: Hubbard and Ward (2007).

However, CAP support remained at the core of the Irish farming sector. Despite the fact that, following the MacSharry reform, farmers faced serious cuts in intervention prices for the major commodities (e.g. cereals, oilseeds and beef), they were compensated for their loss in income through direct payments (DPs). Since their introduction, DPs have proved crucial for Irish farm income and they became an increasingly important component, rising from 30% in 1992, to 41% in 1994, and 60% in 1996. Agenda 2000 and the Mid-Term Review brought further policy changes, as DPs were "decoupled" from production and a Single Farm Area Payment (SFAP) Scheme was introduced from 2005. By 2006, DPs accounted for 98% of total farm income on the average. Moreover, there are farms, such as, for example, cattle rearing and sheep, where DPs account for more than 100% of their total farm income.

However, there is a wide variation in the distribution of direct payments across farm size and enterprise mix. The larger the farm the higher the share of direct payment received. For specialized dairy farms, the share of direct payments represented 31% of family farm income, whilst for cattle rearing and sheep farms it was above 130%[7]. The distribution of direct payments by income deciles reveals that, in the year 2005, 42% of direct payments were allocated to the 20% of farmers with the highest family farm income, whereas only 7% went to the 20% of the lowest farm income group. On the average, a farm received €21,101 under the form of direct payments, but the amount ranged from less than €8,000 for farmers in deciles 1 and 2 to €54,245 to farmers in decile 10 (Department of Agriculture, Fisheries and Food, 2007).



Source: Hubbard and Ward, 2007.

Figure 6. Agricultural Output and Input Price Indices 1989–2005 (2000=100).

The volatility of farm income is also related to the evolution of agricultural output and input prices, which in turn reflects the interplay of the supply and demand for farm products (Matthews, 2005). As with the majority of farmers, Irish

[7] http://www.teagasc.ie/publications/2004/20060119.asp#_Direct_Payments_and_Subsidies.

farmers found themselves often squeezed between agricultural output and input prices. Whilst agricultural output has significantly increased over the years, as a result of technological innovation, output and input prices oscillated, hence squeezing the farm incomes. Both agricultural output and input prices have increased in nominal terms, in the period 1980–1990, but since then the output prices have fallen (Matthews, 2005).

The various changes that took place over the years in the Irish agricultural sector had a continuous impact on household income, pressuring family farm members to engage in off-farm employment. Whilst agricultural labour continues to decrease, there is a tendency towards convergence of the proportion of full-time and part-time Irish farmers, and an increase in the number of farms on which the holder and/or spouse takes up off-farm work. Recent years have seen a growth in the proportion of farm households with off-farm income, which rose from 31% in 1993 to 58% in 2006. Off-farm employment is more important among smaller farms, and in the beef and sheep sectors rather than dairying. For Irish agriculture as a whole, farming activities made up 70% of total farm household income in 1973, but this had declined to just a third by 2004 (Table 9).

Table 9

Gross Income of Farm Households by Main Sources, 1973–2004 (%)

	1973	**1980**	**1987**	**1994**	**1999/2000**	**2004**
Farming	70.1	58.3	54.2	53.5	40.7	32.9
Other direct income	19.1	26.3	17.6	34.8	48.7	51.5
State Transfers	10.8	15.2	28.3	11.7	10.6	15.6
Gross income	100	100	100	100	100	100

Source: Hubbard and Ward, 2007.

A key step in the EU process of agricultural and rural development was the adoption, in 1999, of the Agenda 2000 reforms. Agenda 2000 promoted a further cut in intervention prices (for cereals and beef) and direct (income) aid attributed per hectare or per animal. As a novelty, it introduced the "cross-compliance" concept, meaning that direct payments should be paid conditional on farmers' fulfilment of environmental targets. However, Ireland started focusing on agri-environmental measures from 1994, when it established the first Rural Environment Protection Scheme (REPS). More than €2.1 billion were paid under this scheme in the period 1994–2006.

Agenda 2000 also established the rural development policy as the second pillar of the CAP alongside the EU's agricultural market policy (the first pillar). The shift in the EU policies towards a wider rural development led to the adoption of the *White Paper* 'Ensuring the Future – A Strategy for Rural Development in Ireland', in 1999. This established for the first time an overall policy strategy, a coherent vision of the long-term future of Irish rural society (Department of Agriculture and Food, 1999). The strategy focused on a set of principles, e.g. the

establishment of appropriate institutional mechanisms for rural development, the adoption of a balanced spatial development strategy, a sustainable economic development based on indigenous potential and inward investment, the provision of services and infrastructure, the development of human resources and social inclusion (McDonagh, 2001). The instrument through which these were implemented was the *National Development Programme* (NDP) 2000-2006, which comprised seven Operational Programmes. The NDP was complemented by Ireland's Rural Development Plan (RDP), launched in 2000. Some €6.7 billion (or 17% of the total national expenditure for 2000-2006) were allocated for rural development, with agri-environmental measures and compensatory allowances for Less Favoured Areas (LFA) getting the largest share (Matthews, 2005). However, both the agri-environmental and LFAs payments are subject to academic criticism (e.g. Dwyer *et al*., 2002 and Darnhofer and Schneeberger, 2007). Although they may contribute to the economic, social and ecological development of rural areas, there is a financial imbalance between these measures and broader rural development measures, which limits the progression of integrated rural development. Additionally, they are still regarded as 'farm-centric', yet another form of subsidising farmers.

Overall, the NDP 2000–2006 proved to be a successful strategy[8]. Involving over €57 billion (of national and EU funds), it contributed to economic growth, improved the national infrastructure, assisted in the development of a highly-skilled and flexible workforce, increased Ireland's competitiveness and promoted social inclusion[9].

4. DRIVING FORCES FOR MANAGING AGRICULTURAL CHANGE

What are the major driving forces for managing Irish agricultural and rural changes? Lafferty *et al.* (1999, p. 12) stress that there is not a single determining factor, but a combination of internal and external driving forces and dynamics of modernisation that explain the 'modern revolution' in Irish agriculture. These include not only the geographical differences in natural resources which influence a spatial distribution of farming activity and performance, but also global economic factors (e.g. demand and supply for farm products, expansion of technology and technological knowledge) and national and EU policies. Additionally, cultural, institutional and historical factors with variation across farm categories and geographical areas and "adaptive strategies" determined by individual behaviour subject to motivation and lifestyle, individual resources and capabilities also have to be considered. The experts interviewed between September and December 2007 also shared the view that there is no single factor, but rather a combination of driving forces that have influenced the transformation of rural Ireland since accession. Moreover, most experts highlighted that the development of rural areas cannot be

[8] Business 2000, Tenth Edition, 2006, http:// www.business2000.ie/ndp/index.htm.
[9] http://www.ndp.ie/docs.

discussed without considering the overall national economic development. Hence, three major driving forces were identified: (i) CAP support; (ii) the influx of Foreign Direct Investment (FDI); and (iii) the development of infrastructure (based on EU Structural and Cohesion Funds). In addition, the role of education and training, particularly the development of the third level education system, also seems to be an essential factor for the transformation of rural Ireland in the view of some experts. It is not only the increase in the number of universities and the attraction of a significant number of young people, but also the establishment across the whole country of so-called Institutes of Technology (ITs). These had a considerable influence on enhancing people-skills by promoting the development of the "middle-skills level" which further helped and encouraged people to work in various factories (*e.g.* multinational companies) and at various levels: "knowledge that will produce economic benefits - knowledge economy".

However, it was unanimously recognised that EU membership was paramount for the country as a whole, and especially for the Irish agricultural sector. Initially, accession opened new markets for Irish products and farmers benefited from the CAP price and market support. Subsequently, the compensatory payments were decisive for Irish farming, and currently CAP direct payments remain the main source of farming income. Moreover, the adoption of specific measures such as the REPS was also very important for rural areas. The introduction of the 'integrated rural development' concept in the late 1980s triggered Irish policy makers' attention, as the maintenance of rural population and economic diversification in rural areas became major concerns. Hence, the development of a broader EU integrated rural development policy was well received in Ireland. The adoption of the first National Development Plan and the establishment of a coherent Rural Development Programme represented a significant step in this direction. Although initiated by Brussels and perceived as a Community requirement, the design and application of the NDP under the Community Support Framework proved to be beneficial. For the first time "*money was there, but in order to get it, it was necessary to do a cost-benefit analysis and create an evaluation plan which will get the best of the money*". Collectively, it has been recognised that the decision-making process in Ireland is still very centralised, with local authorities having little power and financial resources. At the microeconomic level, however, the Leader Initiative (plus other forms of local partnerships) has become very popular in Ireland. Leader Programmes gave the opportunity to local communities and representatives to become involved in accordance with priorities in their areas.

The EU transfers via the Structural (and Cohesion) Funds were crucial for the country as a whole, but their distribution at the regional level was rather uneven, with most of the funds oriented towards the East and Greater Dublin Area. Ireland received large amounts of EU funds under the Objective 1 status, but for almost four decades (until 2000) there was no particular regional policy in Ireland. The only regional development initiative was the Regional Industrial Programme, applied in the '70s and the '80s, which used incentives for the purpose of

encouraging firms to locate and invest outside the Greater Dublin Area. The lack of an earlier regional policy was perceived by most experts as a missed opportunity for a balanced regional development that led to a "weak urban hierarchy" and a "very weak planning system". The National Spatial Strategy (NSS) adopted in 2002 aims to achieve more balanced regional development, but until now has added too little. For example, the Government's initiative to reallocate 10,000 civil servants across 45 locations out in the country rather than focusing on the allocation of investments across the regions and on the emergence of new forms of rural governance, led some experts to question the Government's commitment and credibility towards devolution of power and regionalization. However, it is too early to assess the impacts of the NSS and some believe that things may improve in the future.

5. CONCLUSIONS

At the time of accession, despite some substantial economic progress achieved during the 'golden age', Ireland was still a poor, agricultural economy. As agriculture was still contributing significantly to the economy as a whole, accession brought immediate benefits to this sector. Substantial CAP subsidies were transferred to Irish farmers, mainly under the form of price and market support. Furthermore, for the first time, the country traded on broader markets and diversified its exports. Agricultural output increased and Irish farmers benefited from a rise in real income. However, it was not until the mid-1990s that the implementation of various national and EU policies had started to show notable positive results. It was also the creation of the Single Market and the EU transfers from Structural and Cohesion Funds that made a difference to Ireland's economic development. The country as a whole has positively benefited from Objective 1 status, and over the years has received some of the highest EU transfers per capita. Additionally, EU membership and some specific macroeconomic policies made Ireland one of the most attractive destinations for FDI, particularly from the US. Although Structural Funds and FDI were not specifically oriented towards the development of rural areas, they had spill-over effects. Nonetheless, the CAP and its intricate reforms have played a pivotal role in the transformation that took place in rural Ireland. Agriculture remained very important for the Irish economy throughout the 1980s, but since then its contribution has fallen significantly. As the general economy prospered, the sector experienced significant structural changes. These were especially noticeable from the 1990s onwards. The number of farms, particularly the small-sized ones, declined significantly for all types of farms, in contrast to a constant increase in the average farm size. This led to concentration, specialisation and intensification of production. Specialized beef production has remained the predominant farming activity in Ireland, whereas the number of specialized dairy and mixed grazing livestock farms has dropped dramatically.

Farming in Ireland still remains very much a family business, with land and the farm regularly passed on from generation to generation. As agriculture has become less attractive as an economic activity, there has been a decline in the number of full-time farmers. Farming no longer plays a primary role as a source of household income, and its contribution has diminished year by year. More than half of the gross income of a farm household is provided by off-farm employment, with the number of farmers engaged in non-farm activity increasing. The distribution of income is very much dependent on the farm size and enterprise mix, and thus there is a large variation in the level of farm income. The contribution of direct payments to family farm income has substantially increased over the years. There is also an unconditional reliance of Irish farm households on the EU financial support and an almost total income dependence on direct payments.

The adoption of so-called "Accompanying Measures" as a result of the MacSharry CAP reform opened new opportunities for the diversification of the rural economy and raised awareness for the preservation of rural landscape and environment. Amongst these, the agri-environmental measures (provided through the Rural Environment Protection Scheme) have become the most popular amongst the Irish farming community. It was not until the 1990s, however, that rural development as a policy in its own right gained attention from EU and, implicitly, Irish policy makers.

McDonagh (2001, p. 48–50) noted that "few places in Europe are so closely associated with the «rural' as Ireland» and "… «rural» impinges on almost every aspect of Irish life, socially, economically and in influencing the decision-making process." Rural Ireland has been transformed by a variety of economic, social, historical and cultural forces, but "older territorial patterns are still deeply embedded in rural structures." Hence, the dilemma between Ireland's traditional rural identity, with farming and landownership as predominates, and the new rural economic and social progress based on a multi-sectoral approach still persists in the Irish spirit (*ibid*).

Yet, what potential lessons can be drawn for best practice? It is clear that there is no single factor but a combination of interplaying (internal and external) factors and driving forces that influence agricultural and rural changes. Moreover, rural transition cannot be considered outside the national economic context, as the development of rural areas is inevitably tied, but not exclusively hostage, to the fortunes of national economies. However, the most important stimulus to structural change in agriculture has been perhaps the success of the wider Irish economy, which provided new employment opportunities and helped a smooth transition for many people previously tied to farming. Consultations with key informants suggest that education, institutional and capacity-building issues were also very important in Ireland's successes in rural development. Hence, the importance of setting up appropriate national and regional structures capable to attract EU funds, and investment in human and social capital. Additionally, the design and delivery of the National Development Plans, particularly the Rural Development Plans should not

be ignored: "*deliver what you say you will do [to those who give you the funds]".* To accomplish this, the creation of a robust, sustainable and responsible capacity building is necessary. The lack of an earlier regional policy was considered a missed opportunity for Ireland, thus the need for a clear regional strategy, to which the government must be committed if a balanced development at the regional level is desirable. Moreover, decentralisation of responsibilities and a broader involvement of local communities at the regional and local levels need to be fostered and encouraged:

"The representation of rural regions and rural people and its mechanism within the parliament ... is a centripetal force for the development of rural area. Listen to the voice of people in these areas and their needs. In Ireland, politicians are very rooted in their constituencies and rural areas are represented in the parliament".

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