

**Comparative Consumer Prices in
the Eurozone & Consumer Price
Inflation
in the Changeover Period**

PricewaterhouseCoopers Report to Forfás

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Executive Summary

1. Introduction

This study was commissioned by Forfás, at the request of the Minister of Consumer Affairs, in response to a series of reports in the national media that consumer prices in Ireland were relatively high in a eurozone context and that there had been some unusual price developments during the € changeover period. More specifically, the Terms of Reference for the study ask that the consultants provide answers to the following questions:

- is Ireland more or less expensive for consumer goods/ service than other eurozone countries, and, if so, why?;
- was there unusual pricing behaviour in Ireland during the € changeover?

The study Terms of Reference further specified that the consultants were to rely entirely on secondary research sources in formulating views on these questions.

In advance of presenting the study findings, it is important to note that there are very serious methodological difficulties attaching to international comparative price surveys of any description. For this reason, findings presented in Section 2 need to be interpreted with a degree of caution.

2. Consumer Prices in Ireland in Eurozone Comparison

2.1 Is Ireland an Expensive Country in Eurozone Terms?

Eurostat PPP comparative price data dating to 1999 show Ireland to be the fourth most expensive country in the eurozone, after Finland, Germany and France. High rates of inflation in recent years mean that the relative price of goods/ services in Ireland has deteriorated (i.e. become more expensive).

PricewaterhouseCoopers projections to February 2002 suggest that Ireland may now be marginally more expensive than France and Germany – consistent with more recent findings from other sources (e.g. Eurostat's City "Cost of Living" Survey, Mercer HR Consulting). However, the price differential is small and needs to be interpreted with caution in view of the methodological difficulties underpinning the computation of Eurostat PPP comparative price data. Ireland's presence among the three/ four most expensive countries in the eurozone is supported by Eurostat "Cost of Living" survey findings from 2001 and by the comparative price data produced by Mercer Human Resource Consulting.

In 2001/2002, Ireland was found to be the most, or second most, expensive country in the eurozone for: "alcohol and tobacco"; non-food grocery items; residential rents; and "pubs and restaurants". Excepting education (where provision is public sector

dominated) and communications¹, Ireland featured among the top three most expensive eurozone countries for those categories of consumer expenditure that are dominated by services (e.g. recreation and culture). By contrast, Ireland was found to be consistently among the least expensive eurozone countries in which to buy clothing and footwear. Further findings worthy of note are:

- the relative expensiveness of **unprocessed foodstuffs** in Ireland (e.g. eggs and potatoes), given that Ireland is a producer nation and the only eurozone economy where these are VAT exempt;
- Ireland is the most expensive country in which to buy a basket of **grocery items** (incorporating food and non-food items) in mid-priced retail outlets;
- Ireland's **retail structure** counts among the most price homogenous (i.e. virtual absence of discounters) in the eurozone.

Ireland's status as one of the eurozone's most expensive countries is one which is relatively recently acquired. In 1995, Eurostat ranked Ireland the 8th most expensive country of the EU12. By 1999, this had translated into a number four ranking and has remained in the top three/ four since 2000. Ireland's ascent through the ranks of the eurozone's most expensive, at a time when consumer price inflation approximated that for the eurozone as a whole, partially reflects the fact that eurozone-wide inflation in the period 1996 to 1999 was fuelled by price developments in the poorer/ low-cost eurozone members. However, it should be borne in mind that the methodology underpinning the collation of PPP comparative price data (the primary source of comparative price data) is not ideally suited to year-on-year analysis – and historical rankings should be interpreted as indicative of a general trend only. Moreover, the recent deterioration in the affordability of consumer goods/ services in Ireland needs to be seen in the context of **wage growth** that has outstripped that experienced in any other eurozone country.

It is also important to bear in mind that this study pertains to the eurozone only. The non eurozone economies, namely Denmark, the United Kingdom and Sweden, are all considerably more expensive for consumer goods and services than Ireland. Thus, in an **EU15** comparison Ireland would rank as the **5th most expensive country** versus a possible 2nd (estimate only) in an EU12 comparison.

Finally, Ireland's standing as one of the eurozone's most expensive countries must be viewed in the context of a taxation environment that favours employment (i.e. direct taxation) over consumption (i.e. indirect taxation). After tax, it is estimated that Irish employees are the third-best remunerated in the eurozone, behind France and Luxembourg.

¹ The relative cost competitiveness of communications in Ireland (ranked 6th most expensive in eurozone in 2000) is a relatively recent development, and most likely attributable to the deregulation of the sector — Ireland having featured among the two most expensive countries for communication services in 1995.

2.2 Why is Ireland Expensive for Consumer Goods/ Services?

The deterioration in the relative affordability of consumer goods/ services in Ireland in recent times can be attributed to rates of consumer price inflation that have outstripped those of the eurozone as a whole, and most other eurozone economies. Inflation differentials are explained by Ireland's exceptional economic performance in recent years, with the result that demand for labour has outstripped supply. The consequence of this was income growth, particularly in the services sectors, that was not fully warranted by productivity gains or general inflation, and high levels of consumer price inflation.

Inflation differentials alone, however, are not the full explanation of consumer price differentials between Ireland and other eurozone economies. Rather, other factors that come into play are the following:

- indirect taxation;
- regulatory factors/ competition;
- retail structures;
- national preferences;
- geography/ market size.

The eurozone's two most expensive countries, Ireland and Finland, are characterised by the highest rates of **indirect taxation**, i.e. VAT, excise duty and VRT. In assessing indirect taxation differentials across eurozone economies, it is important to bear in mind that indirect taxation within any economy operates within a much wider taxation framework. In the case of Ireland, for example, high levels of indirect taxation co-exist with relatively low level of taxation on personal income – a balance that seeks to promote job creation/ employment. This is not the case for Finland.

With regard to **regulatory factors/ competition** benefits to the consumer of the gradual deregulation of the communications sector in Ireland are evidenced in the very considerable improvements that have been realised in the relative cost competitiveness of communications services in Ireland since 1995. By contrast, the relative expensiveness of the “pubs and restaurants” and “health” categories may be, in large part, attributable to the fact that supply is controlled or regulated in some manner. Levels of competition for the supply of services in Ireland are not, however, a function of regulatory factors alone. A rapid expansion in demand for certain consumer services in Ireland in recent years has meant that supply has, in many cases, simply not being able to keep pace. This “catch-up” requirement may explain Ireland's standing as one of the most expensive eurozone countries in which to procure a variety of consumer services.

Regulatory factors may also have a role to play in the structure/ competitiveness of the **retail** sector in Ireland, the Grocery Order prohibiting below invoice selling and the Planning Development Act prohibiting the development of retail outlets in excess of a certain size. An apparent lack of competitiveness in the retail sector in Ireland is suggested by the finding (Mercer HR Consulting) that Ireland is the most expensive country in the eurozone in which to buy a basket of groceries (food and non-food items) in mid-priced outlets, and that Ireland ranks among the most expensive countries in which to buy many unprocessed foodstuffs (e.g. fruit and vegetables), in spite of the fact that Ireland is the only eurozone country where these are VAT exempt.

In addition, some element of consumer price differentials at aggregate level, and indeed within product/ service categories, are attributable to **national preferences**, e.g. Ireland has a relatively high consumption of goods that are subject to excise duty. The unquantifiable nature of “national preferences” as a determinant of consumer price differentials across national boundaries means that definitive conclusions on the causes of consumer price differentials are rarely possible.

Finally, Ireland is an **island nation** and the market for consumer goods/ services is small in a wider eurozone context. Again, the precise role that these factors play in determining price differentials between countries that may not be determined, but may be significant for certain types of good/ service, e.g. products which are perishable, high volume and/ or low value.

3. Consumer Prices in the Changeover Period

3.1 Were there Unusual Price Developments during the Changeover²?

At **aggregate** level, the answer to the question is that consumer price inflation during the changeover appeared normal in the context of what had been happening in preceding months, for the same period in 2000/2001 and indeed for the period since late 1999 when rates of inflation started to rise. Similarly, inflation trends at expenditure category level (i.e. COICOP) for the full year to end 2001 seemed to be broadly in line with trends for preceding years, i.e. characterised by a gradual increase in rates of inflation in the service-dominated categories of spend.

A closer look at inflation levels in the September 2001 to March 2002 period at COICOP level, however, revealed rates of price increase in certain categories of good/ service that were unusual in the context of preceding years. A second measure of the normality of pricing behaviour during the changeover (i.e. average prices in January to March relative to average prices in the full year April to March) confirmed the presence of what appeared to be some unusual pricing behaviour. Consumer products and services identified as displaying unusual price increases during the changeover (using the latter measure) are the following:

Health

- outpatient services:
 - *dentists' fees;*
 - *opticians' fees;*
 - *doctors' fees.*
- pharmaceutical products.

² It should be noted that all of the data used for the completion of this section was taken from consumer price inflation data that is computed and published monthly by the Central Statistics Office, i.e. the consultants had no privileged access to confidential price data nor were any special surveys commissioned.

Recreation and Culture

- cultural services, including:
 - *cinema;*
 - *cultural admittances.*
- recreational and sporting services.
- package holidays.

Pubs and Restaurants

- restaurants, cafes and licensed premises, including:
 - *beer in licensed premises;*
 - *spirits in licensed premises;*
 - *wine in licensed premises;*
 - *soft drinks/ bottled water – licensed premises;*
 - *lunch/ dinner in restaurants.*
- catering services.
- accommodation services.

Miscellaneous Goods and Services

- hairdressing.
- other services.

Education

- private education and training.

Transport

- other services in respect of motor vehicles, including:
 - *driving licences³;*
 - *other vehicle costs.*
- taxi fares.
- other purchased transport services, e.g. furniture removal.

Housing

- local authority rents⁴.
- services for the maintenance of dwelling, e.g. plumbing.
- other services relating to the dwelling, e.g. chimney sweeps.
- electricity⁵.

³ The price increase after the changeover was the first in four years and entirely attributable to the introduction of the driver theory test.

⁴ Local Authority rents are based on household income.

⁵ This increase was announced prior to the changeover and was the first for many years.

Food and Non-Alcoholic Beverages

- flour
- cakes

Off-Licence Alcohol and Tobacco

- wine

Furnishings/ Household Equipment

- repair of household appliances

The first point to note in relation to the foregoing list is the preponderance of services or non-tradeables. The second point to note is that certain of the unusual price increases during the changeover were subject to Government influence, e.g. taxi fares. While some might consider it to have been imprudent to raise prices for Government/ Government-regulated services in the months of the € changeover, it can reasonably be assumed that these price increases were not timed to coincide.

Finally, it should be highlighted that the aforelisted unusually large price increases co-existed with unusually small price increases in the “food and non-alcoholic beverages” category of expenditure. This suggests that the various voluntary codes to which all of the major food retailers subscribed, were effective in ensuring fair play and would appear to have acted to suppress price increases in the early months of this year.

3.2 Why were there Unusual Price Increases?

There are a number of possible explanations for the occurrence of unusual price increases during the changeover period.

The first of these is that there were factors at play in the **external environment** Irish service enterprises that required exceptional price increases in the months directly after the changeover. At aggregate level, however, a review of the major drivers of services inflation in Ireland (i.e. rates of growth in **consumer demand** and wages in services) suggested that external factors should have led to some deceleration of price increases on 2000/2001 levels during the changeover. While the potentially favourable effects of these developments may have been countered, to some extent, by hikes in the costs of public, employer and product liability **insurance premia**, a number of factors suggest this not to be the case. Firstly, survey findings show that the costs of insurance to Irish business have been rising very quickly for the past two years, i.e. this is not a changeover-specific development. Secondly, insurance costs increase only when a premium comes up for renewal, which in the case of many enterprises does not coincide with the start of the calendar year. Thirdly, there is no particular reason why the impact of such premium hikes would weigh most heavily on one particular sector of the economy, i.e. services. Finally, the impact of the introduction of a 21% standard rate of **VAT** in

March 2002 on price levels is not sufficiently large (estimated at 0.25%) to explain the price anomalies identified. Thus, at aggregate level, factors in the external environment should not have provided any real impetus for price increases over and above those experienced in 2000/2001⁶.

A second explanation of unusual price increases in the changeover is that Irish businesses incurred direct and indirect costs as a result of the introduction of the new currency, for which they needed to be compensated. In view of the fact that these costs were once-off in nature, incurred by all enterprises across the State (i.e. not just services), and relatively insignificant in absolute or relative terms for most business, it is the view of the consultants that they cannot explain any significant share of the unusual price increases identified. Moreover, and reflecting the fact that the **costs of € conversion** were experienced before, during, and after the changeover, our primary measure of unusual price increases (average prices in January to March as a % of average prices in the full year to end March) should have controlled for the price effects of these costs.

A third, and seemingly more plausible, explanation than either of the foregoing pertains to a “**convenience factor**”, i.e. bringing forward price increases to avoid duplicating costs entailed in changing prices, tradition for certain enterprises of only dealing in notes or coins of a certain denomination, and widespread use of psychological pricing points in the retail sector. The extent to which the rounding up of prices or bringing forward full-year price increases to January of this year constitutes “euro-profiteering” depends wholly on the future pricing behaviour of the enterprise, i.e. the extent to which the consumer is compensated through the deferral of future price increases, and the value of products/ services that were rounded down relative to those that were rounded up.

The final, and most ominous, explanation of unusual price increases in the early parts of this year (i.e. January to March) is the possibility that enterprises used the euro changeover to increase profits to make additional profits, i.e. “**euro profiteering**”. This begs the question as to why an enterprise would wait until the introduction of the € to profiteer? Surely as an independent operator, he/ she could raise prices at any time in a bid to increase profits? There are two possible reasons.

The first, and most obvious, is that he or she hopes that the consumer, in the **price confusion** engendered by the introduction of the euro, will not notice the price increase in the short term. In the medium-term, however, the consumer will observe price differentials with other service providers and relocate. That is, of course, assuming that the consumer has a choice in terms of service provider, that other enterprises have not engaged in a similar behaviour and/or that the consumer is not tied to the enterprise in some way, e.g. loyalty to a family doctor. This type of behaviour is effectively impossible in highly competitive markets, but a number of factors mean that levels of competition for the supply of certain services in Ireland are most likely below desirable levels. These factors include a burgeoning demand for consumer services in Ireland and the inability of the supply infrastructure to keep pace, the restricted supply of certain types of medical professional in Ireland owing to the limited availability of university places and the continued regulation of a small number of service sectors, most notably pubs.

⁶ The scope of this study did not extend to a review of sector-specific drivers of inflation.

The second reason pertains to regulated sectors, or sectors that are being closely observed from a competition perspective. In such an instance, there is an incentive to tie a price increase into a currency change to avoid unwanted attention from the relevant **competition authority**. Changes in indirect taxation also provide such an opportunity for sectors where market entry is restricted.

3.3 Were the Complaints Justified?

The answer to this depends on what is intended by the question.

If the question pertains to whether the large volume of consumer complaints regarding unusual price increases, particularly in the non-traded sector, had any basis in reality, then the answer is that the complaints were not without justification. Analysis of consumer price inflation data in Chapter 5 showed there to be a series of anomalous price increases across a range of service areas in Ireland. Moreover, the direction of the complaints (e.g. doctors, hairdressers, public houses) was broadly consistent with the profile of services/ goods where pricing behaviour during the changeover was identified as being unusual in a national historical context.

If the question “were the complaints justified?” pertains to whether the large volume of consumer complaints regarding unusual price increases were entirely commensurate with the reality on the ground, the answer is less clear. At aggregate level, consumer price inflation during the changeover was not anomalous in an historical context, i.e. the anomalous pricing behaviour of certain suppliers of consumer services was negated in large part by favourable price developments in other areas of consumer expenditure, e.g. housing and food. Moreover, it generally takes time for consumers to adjust to the fact that a unit of the new currency is simply not as valuable as a unit of the old - € illusion, as this has been dubbed, is reflected in the fact that a large number of people have yet to, or have only recently, adjusted their average ATM withdrawal amount to reflect the diminished value of a unit of the national currency. Finally, consumer prices in Ireland have been edging up for some time now, and the introduction of the euro most likely served to cast this fact into a much clearer light for many consumers.

If the question “were the complaints justified” pertains to whether there was euro profiteering on a grand scale in Ireland, the answer is no. There is preliminary evidence of **euro profiteering** but this is not economy-wide – rather would appear to be confined to the non-traded sectors, and particularly those where competition is not particularly strong either as a result of regulation/ restricted market entry or an inadequate supply. The extent to which unusual pricing behaviour during the changeover constitutes profiteering will only become apparent with the passage of time, as all of the euro-induced pricing behaviours wash out of the system. Moreover, it is not possible to determine at what point in the supply chain the “unusual” pricing behaviour commenced, i.e. it may be the case that those enterprises that deal directly with consumers are themselves victims of some level of “euro-profiteering” higher up in the supply chain.

Chapter 1 Introduction

1.1 Background to the Study

This study was commissioned by Forfás, at the request of the Minister of Consumer Affairs, in response to a series of reports in the national media that consumer prices in Ireland were relatively high in a eurozone context and that there had been some unusual price developments during the € changeover period.

In a bid to determine whether these concerns had any basis in fact, Forfás commissioned PricewaterhouseCoopers to review all relevant sources of secondary information pertaining to: a) comparative consumer price levels in Ireland; and b) consumer price inflation in the changeover period.

1.2 Study Terms of Reference

The Terms of Reference for the study comprised two distinct elements, namely:

Part A, which required that the consultants:

- analyse price levels and changes in Ireland and other eurozone countries;
- where possible, make direct comparisons of individual goods and services, and baskets of goods and services, harmonised and weighted, to maximise international comparability;
- discuss the factors that determine and influence price differentials between Ireland and other eurozone members;
- present research findings, making policy recommendations as appropriate.

Part B, which required that the consultants:

- analyse CPI data for 2001 and early 2002 to ascertain whether price rises over the period were consistent with the historical experience, all things considered;
- compare CPI data in Ireland in this period to that of other eurozone countries.

The Terms of Reference stipulated that no primary research was envisaged as part of the research process.

1.3 Research Approach and Challenges

Consistent with the Terms of Reference, the **research approach** applied relied entirely on secondary research sources. More specifically, information on comparative prices across eurozone countries, absolute and relative price developments in Ireland in the changeover period, developments in consumer prices elsewhere in the eurozone in the changeover period and factors that determine price differentials were sourced from a combination of the following:

- Eurostat;
- European Commission - DG Internal Market;
- Mercer Human Resource Consulting;
- UBS Warburg;
- Ameco Database;
- National Competitiveness Council/ Forfás;
- OECD;
- Central Statistics Office;
- Central Bank of Ireland.

Consumer price data, collated monthly by the CSO for the computation of the Consumer Price Index (CPI) was the primary source of data used in assessing the normality or otherwise of price developments during the changeover. In addition, the indirect taxation group in PricewaterhouseCoopers compiled a series of tables outlining relative levels of excise and VAT on consumer goods and services in Ireland, for 2001/2002 and historically using a combination of secondary and primary sources. These are

presented in Chapter 4, which describes the likely determinants of consumer price differentials between Ireland and other eurozone countries.

As envisaged at the proposal stage, fulfilment of the tasks outlined in the Terms of Reference posed a series of **challenges** from a research perspective. Primary among these challenges were the following:

- **scope** – the nature of the subject of this study is such that it touches on a wide range of complex issues, e.g. competitiveness of retail structures in Ireland, and involves a very large number of consumer goods/ services, the price determinants of which are hugely diverse. The study was commissioned with a view to forming a “first cut” analysis of the issues at hand, and the research approach adopted reflects this objective. Price developments are examined for categories of expenditure only (e.g. spare parts for motor cars vs. cost of car tyres), and limited consideration is paid to product/ service-specific drivers of inflation/ determinants of international consumer price differentials. Recommendations for further research are contained in Chapter 6.
- **availability of absolute price data** – there is a very limited availability of absolute price data for consumer goods and services across European countries, with Eurostat comparative price data, prepared for the purposes of computing Purchasing Power Parities (PPPs – see Chapter 2) being the only official source of information in this regard;
- **national representativeness of absolute price data** – the limited absolute price data that is available, including that produced by Eurostat¹, is based entirely on surveys of consumer prices in cities in European countries. To the extent that consumer prices are known to differ considerably between city and rural areas, there is a “national” representativeness issue.
- **comparability of absolute price data** – related to this, there are considerable comparability issues with the absolute price data that is available. The nature of these difficulties depends largely on whether the data/ dataset provided seeks to be representative of consumption in the country in which prices are being

measured or representative of the consumption in a third country. Data comparability issues are described in more detail in Chapter 2.

- **determinants of consumer price inflation** - while there is a general consensus on the factors that determine rates of consumer price inflation in Ireland, less is known about: a) the time required for changes in these factors to filter through to consumer prices; and b) the factors that determine the size of the impact². This absence of “hard and fast rules”, constrains the extent to which the “normality” of consumer price inflation in the changeover period can be scientifically assessed. Moreover, the changeover period as defined for the purposes of this study has expired (i.e. end March), and up-to-date data on labour costs or consumer spend are only now available up to the third quarter of last year;
- **cost of euro conversion** – it is clear that Irish enterprise incurred costs as a direct result of the euro changeover, certain of which stemmed from the administrative arrangements required to ensure “euro-readiness” and others which stemmed from the requirement to hold/ deal in dual currencies. While various estimates of the impact of these costs have been made, none are scientifically based. In view of the difficulties inherent in putting a figure on the cost of business or euro conversion, it is sufficient to be aware of the fact that some cost was incurred by business as a direct result of the changeover, but that this cost was small, in the case of most enterprises, and once off in nature;
- **voluntary code of practice** – the voluntary code of practice, which required enterprises that subscribed to convert prices in strict adherence to the full six digit conversion rate (i.e. £0.787564) and display dual prices over the changeover period, ended on 9th March 2002. While national CPI data for March 2002, which are incorporated into this study, provide an indication of price developments in March, the persistence of unusual pricing points (e.g. €1.87 vs. €1.89) suggests that the full price effects of the euro are yet to be realised.

¹ It should be noted that Eurostat/ PPP comparative price data attempts to correct for this through the application of “national correction” factors.

² The 1996 ESRI report on Ireland’s entry into EMU found that it takes three quarters for Irish prices to adjust half-way to an increase in UK price levels. This report found exchange rate responses to be slower, with a 50% adjustment taking one full year. Equally, enterprise reaction to a price or exchange rate development will depend on the extent to which it is believed that the development is likely to be sustained in the medium term. For example, most Ireland-based UK multiples/ retailers operating in Ireland did not initially react to the appreciation of Sterling when the Irish punt locked against the euro in January 1999 in the belief that the euro was undervalued and the rate would not be sustained.

- **convenience** – in a bid to save on administrative costs (e.g. production of new menus), it is probable that many enterprises linked the timing of annual price increases to the euro changeover to minimise on expense, which may in certain cases (i.e. where price increases were deferred) have benefited the consumer. Similarly, certain enterprise sectors have a long-established tradition of only dealing with coins or notes of a minimum denomination, e.g. £5 notes in the case of medical services. The conversion of prices in strict adherence with the six digit conversion rate would have meant a break with this practice, and clearly did not happen. The extent to which this behaviour constitutes “euro profiteering” will only become clear with time, as pricing behaviour in future months/ years may be altered by euro-induced pricing behaviour over the last number of months.

The research approach adopted by the project team aimed to minimise the constraints imposed by these somewhat formidable challenges, allowing for the formulation of conclusions on the key questions posed in the Terms of Reference.

1.4 Report Structure

The remainder of this report comprises five chapters. The next chapter describes the information sources used in preparing this report, setting out their respective strengths and weaknesses. Chapter 3 presents secondary research findings regarding the relative price of consumer goods in Ireland, while Chapter 4 describes the factors that may explain price differentials such as they are determined to exist. Chapter 5 addresses the subject of the euro changeover, examining price developments between September 2001 and March 2002 in a national historical and international context. Chapter 6 brings findings from the foregoing chapters together, to reach conclusions on the questions posed in the Terms of Reference and make recommendations.

Chapter 2 Information Sources and Research Limitations

2.1 Introduction

This chapter describes the information sources used in meeting the core requirements of the Terms of Reference for this study, and their respective strengths and weaknesses. In view of the considerable difficulties inherent to any international study of comparative consumer prices, the focus here is on sources of comparative price data across the eurozone. The remainder of this chapter comprises three sections. The next section sets out our general issues that beset comparative price surveys, while section 2.3 describes the methodology underpinning the computation of Eurostat PPP-derived comparative price data. Section 2.4 sets out the strengths and weaknesses of Mercer Human Resource Consulting comparative price data as used in this study, while Sections 2.5 and 2.6 describes comparative price data available from the European Commission and UBS Warburg.

2.2 General Limitations of Comparative Price Data

At overall level, limitations/ issues inherent common to all/ most sources of comparative price data for eurozone countries are the following:

- **national representativeness:** the “national representativeness” of a comparative international price survey refers to the extent to which the profile of goods/ services priced seeks to mirror the consumption patterns of residents of the country in question³. The strengths of a nationally representative approach are that it provides a truer reflection of the comparative cost of consumer goods/ services for residents of particular countries, and controls for the fact that the price of consumer goods/ services is determined to a large extent by consumption volumes/ the extensiveness of distribution networks. The weakness

³ For example, a nationally representative comparative price survey would not compare the price of cheddar cheese in Ireland and France, rather would compare the price of cheddar cheese in Ireland with the price of the most popular cheese in France (i.e. Camembert).

is that it, at disaggregated level, means that price comparisons are drawn between products/ services that may have fundamentally different production/ packaging costs. Policy-advisory bodies (e.g. Eurostat) typically used a nationally representative approach, while the non-nationally representative approach characterises price comparisons aimed at advising organisations on the cost of remuneration levels for employees to be placed in overseas countries, e.g. Mercer Human Resource Consulting. To compensate for the weaknesses inherent to either approach, research findings presented in Chapter 3 present findings from price comparison surveys using both;

- **product/ service weightings:** related to the foregoing, nationally and non-nationally representative comparative price surveys typically apply weightings to consumer goods/ services to reflect: a) divergent consumption patterns of eurozone nationalities or; b) the consumption patterns of employees likely to be placed abroad. Again, a weakness of the weighted approach (based on local consumption patterns) is that, at product/ service category level (e.g. “off-licence alcohol and tobacco”), one is frequently not comparing like with like. The alternative approach is to rely solely on: a) unweighted baskets of goods/ services; b) individual product or service price comparisons. Again, Chapter 3 presents findings which are based on weighted and unweighted samples of goods/ services to overcome limitations inherent to each approach;
- **comparability of products/ services:** the non-nationally representative approach seeks to compare identical products across national boundaries. A major difficulty in doing so is the ability to identify identical products/ services. While there are a small number of products/ services that are truly global in nature, e.g. Big Mac ©, these are the exception. Even in the case of identically branded products, local preferences and related product adjustments (e.g. distinct formulation of Persil washing powder in Southern European economies), may mean that price differentials are explained by product differences alone, as opposed to providing any indication of the relative competitiveness of supply;
- **city bias:** finally, all of the comparative price data used in the preparation of this report are based on price surveys carried out in the major urban areas/ cities of the countries reviewed. The extent to which this bias impairs the international comparability of price data depends on a number of factors, most notably: a) the

share of the national population accounted for by the major urban centres; b) the representativeness of the city/ cities chosen for examination and; c) the consistency with which research findings are adjusted to account for a city bias.

As is clear from the foregoing, there are a series of issues associated with the collection of internationally comparable consumer price data. While the consultants have sought, through the selection and use of various data sources, to minimise these limitations – the data presented in Chapter 3 should be read as **indicative** of Ireland's relative standing in the eurozone only.

An issue also arose in relation to the **consumer price inflation data** provided by the CSO for the period January 1997 to March 2002. The weightings assigned to the various categories of consumer expenditure and their constituent goods/ services were revised in December 2001. The nature of the data required for the purpose of this exercise was of so detailed a nature as to make it not feasible to rebase the full historical dataset to reflect these revised weightings. In recognition of this, inflation data presented in Chapter 5 should be read as estimates only – there being potential for some small margin of error.

2.3 Eurostat/ PPP Comparative Price Data

Eurostat/ PPP (Purchasing Power Parities) comparative price data is a by-product of an exercise aimed at advancing the traditional measure of welfare across economies, to reflect the fact that national output expressed in a common unit of currency does not provide an adequate reflection of the relative welfare of residents of different countries, i.e. exchange rates do not capture in full the size of the basket of goods/ services that may be acquired in return for a given unit of a common currency. In other words, differentials in the cost of goods and services between countries are not fully reflected in exchanges rates.

The National Statistical Institutes (NSI - e.g. CSO in Ireland) are charged with the collection of the comparative price data, which feeds into the computation of PPPs. NSIs collect absolute price data under 12 COICOP (Classification of Individual

Consumption by Purpose) headings⁴ (see Table 2.1), as well as for a number of sub-headings. Surveys are conducted on a rolling three-year cycle, with NSIs carrying out surveys on one third of the basket of goods and services annually. The relative prices of the remaining two-thirds of the basket are extrapolated by applying consumer price indices for their constituent elements to the previous years' data. Comparative price data is presented in index form, where 100 most typically equates to the average price pertaining across EU15 or the eurozone.

Table 2.1 COICOP Headings

1	Food and Non Alcoholic Beverages
2	Alcoholic Beverages and Tobacco
3	Clothing and Footwear
4	Gross Rents, Fuel and Power
5	Furnishings, Equipment and Maintenance
6	Health
7	Transport
8	Communications
9	Recreation and Culture
10	Education
11	Pubs and restaurants
12	Miscellaneous Goods and Services

There are a series of widely acknowledged limitations associated with Eurostat/ PPP comparative price data. Primary among these are the following:

- **city bias** – in common with other sources of information on comparative consumer prices, Eurostat/ PPP price surveys are carried out exclusively in capital cities. Eurostat requires that NSIs provide “spatial adjustment factors”, to allow for the adjustment of these prices to prices that are nationally representative, but the basis on which such adjustment factors are computed can vary somewhat between countries;
- **consumption “representativeness”⁵** – there is a strong correlation between the price of goods/ services and volumes of consumption within a given country, i.e. products/ services that are in large demand tend to be relatively low-cost owing

⁴ These headings are consistent with those used for the computation of comparable consumer prices indices across Europe, i.e. the HICP.

- to the potential for efficiencies. Thus, the baskets of goods/ services selected must be equally representative of consumption across country if comparability is to be ensured. “Equi-characteristicity”, as this is termed, is, however, very difficult to achieve in reality and the potential for some unquantifiable bias remains;
- **disaggregated findings** – as previously mentioned, Eurostat/ PPP comparative price data is a by-product of an exercise aimed at converting the national outputs of different countries (as expressed in units for a common currency) into a measure, that has some regard to the fact that exchange rates do not fully reflect price differentials between different countries. Thus, the focus of the methodology used to prepare PPPs focuses on ensuring reliability at the aggregate level, as opposed to ensuring reliability at more disaggregated level, i.e. COICOP headings. Notwithstanding this, every effort is made to ensure comparability of product/ service and reliability of price data at the level of the 12 COICOP headings at a minimum – this being crucial to the ultimate accuracy of the aggregate outcome;
 - **temporal comparisons** – similarly, PPPs are designed to give the best possible estimate of country price relativities in a particular year, and are not ideally suited to time series linking/ comparison. This is because ongoing changes in data and methods used in computing PPPs may affected the strict comparability of the data, year on year. However, in spite of this limitation Eurostat/ PPP comparative price data remains the primary source of data used for price convergence/ divergence analysis within Europe.

Thus, in conclusion, there is some level of uncertainty associated with Eurostat/ PPP comparative price data, which means that it may be somewhat misleading to establish a strict order of ranking when countries are clustered around a very narrow range of outcomes. This point should be borne in mind in reviewing Sections 3.2 and 3.4.1 of the next Chapter, which present **nationally-representative** and **non-nationally representative** eurozone price comparisons based on Eurostat/ PPP data respectively.

⁵ Important to note that the Eurostat/ PPP comparative price data seeks to be nationally representative of consumption, although price data garnered through this process is also used to compile the non-nationally representative European Commission Cost of Living study.

2.4 Mercer Human Resource Consulting

Mercer Human Resource Consulting is a global HR consultancy practice. The company has a long-established tradition in advising large corporates on expatriate remuneration packages, based largely on its bi-annual, and highly-regarded, survey of the cost of living in more than 200 cities world-wide. The surveys are conducted in March and September of each year and cover a range of headings, not entirely dissimilar to those presented in Table 2.1. Absolute € price data is provided for more than 200 products/services, distinguishing between prices in low -, medium - and high-priced retail outlets/service providers. The survey is non-nationally representative, i.e. the same products/services are priced in all cities, although findings may be weighted to reflect a) local consumption patterns; or b) the consumption patterns of residents of a defined country of origin. In contrast to the approach taken to the city data compiled for the purposes of Eurostat PPPs, city data is not adjusted to make it nationally representative – reflecting the fact that expatriates are most commonly located in major cities. To compensate for this, and to reflect the fact that Dublin counts among the smallest capital cities in Europe, the consultants aggregated prices across two cities in the case of the larger eurozone countries, namely Italy (Rome and Milan), France (Paris and Lyons), Germany (Frankfurt and Hamburg) and Spain (Barcelona and Madrid). Prices in the remainder of the eurozone countries are assumed to be as per the capital city. This is a limitation of this data source. Further limitations are the fact that the price data does not lend itself very well to aggregation (i.e. a basket of goods) and is not nationally representative, although a non-nationally representative approach provides a useful context to the nationally representative findings of Eurostat/ PPP data.

2.5 European Commission

DGs Internal Market and Competition of the European Commission have prepared/commissioned a number of international price comparison studies within Europe. These include studies on the relative price of **electronic consumer goods**, selected **fresh food** items, various **groceries** including food, **bank charges** and **motor vehicles**. Some combination of factors, most notably the definition of service included, the level of disaggregation of price data by country and the exclusion of Ireland, meant that only one

of these studies had a particular relevance to this exercise. This was the motor vehicle study, findings from which are presented in Section 3.4. The European Commission also uses Eurostat/ PPP data to prepare an annual city cost of living study (aimed at determining the remuneration packages of Commission officials seconded outside of Brussels), findings from which are also presented in the next chapter.

2.6 UBS Warburg

UBS Warburg publishes a global price and earnings survey every three years. The next edition is due to be published in mid-2003 – findings presented in Chapter 3 dating to 2000. A number of factors mean that the consultants are not in a position to provide a definitive view on the relative strength or weakness of this data source, most notably the fact that very limited information is available on the methodology. The relative inconsistency of findings from this source with those available from elsewhere and the nature of goods/ services included in the basket (e.g. four bed roomed apartment in Dublin) suggest to the consultants that this data source may not be particularly reliable in the case of Dublin/ Ireland.

Chapter 3 Comparative Consumer Prices in Ireland

3.1 Introduction

This chapter presents findings on the comparative prices of consumer goods and services in Ireland vis-à-vis other eurozone members – with information presented subject to the reliability/ comparability caveats outlined in Chapter 2.

The remainder of this chapter comprises five sections. The next section presents comparative price data for eurozone members which is derived from the survey work used to produce PPPs by Eurostat. Section 3.3 provides details of international consumer price surveys prepared by the internationally renowned Mercer Human Resource Consulting, while Section 3.4 presents a selection of comparative price statistics produced by, or on behalf of, the European Commission. Section 3.5 presents price data produced by UBS Warburg, while Section 3.6 presents key chapter findings.

3.2 Eurostat/ Comparative Consumer Prices (PPPs/ Nationally Representative)

Table 3.1 shows the development of relative consumer prices in Ireland in the period 1995 to 1999 (the most recent year for which data is available), with shading indicating that consumer prices in Ireland are more expensive than in at least six of the twelve eurozone members. It should be noted that the use of rankings in Table 3.1 hides underlying developments in relative price movements (i.e. a change in rank may be attributable to a negligible change in relative price levels) – to compensate for this, comparative price indices for all years 1999 to 2001 (2000 and 2001 are projected and subject to some margin of error) inclusive are attached as Annex 1 to this report.

Table 3.1 Consumer Prices in Ireland – Ranking (1 = Most Expensive in Eurozone), 1995 to 1999

	1999	1998	1997	1996	1995
All Private Household Consumption	4	6	7	8	8
Food and Non-alcoholic Beverages					
- Food	6	7	8	9	9
- <i>Bread and Cereals</i>	5	6	9	11	11
- <i>Meat</i>	8	9	9	9	9
- <i>Fish</i>	11	8	10	10	12
- <i>Milk, Cheese and Eggs</i>	1	1	1	3	3
- <i>Oils and Fats</i>	11	9	8	11	9
- <i>Fruit, Vegetables and Potatoes</i>	3	3	5	7	8
- <i>Other Food</i>	6	9	10	11	12
- Non Alcoholic Beverages	4	2	1	1	2
Off-Licence Alcohol and Tobacco					
- Alcoholic Beverages	2	2	1	2	2
- Tobacco	1	1	1	2	2
Clothing and Footwear	12	12	8	12	10
Gross Rents, Fuel and Power	4	5	8	8	11
- Rentals for Housing	4	5	8	8	11
- Electricity, Gas and Other Fuels	7	10	9	9	10
Furnishings, Equipment and Maintenance	6	8	6	10	9
Health	7	8	7	10	10
Transport	2	n.a.	n.a.	n.a.	n.a.
Communications	6	3	3	3	2
Recreation and Culture	5	n.a.	n.a.	n.a.	n.a.
Education	9	9	9	8	8
Pubs and restaurants	2	n.a.	n.a.	n.a.	n.a.
Miscellaneous Goods and Services	7	8	7	6	6

Source: Eurostat (Shading indicates Ireland in Top 6)

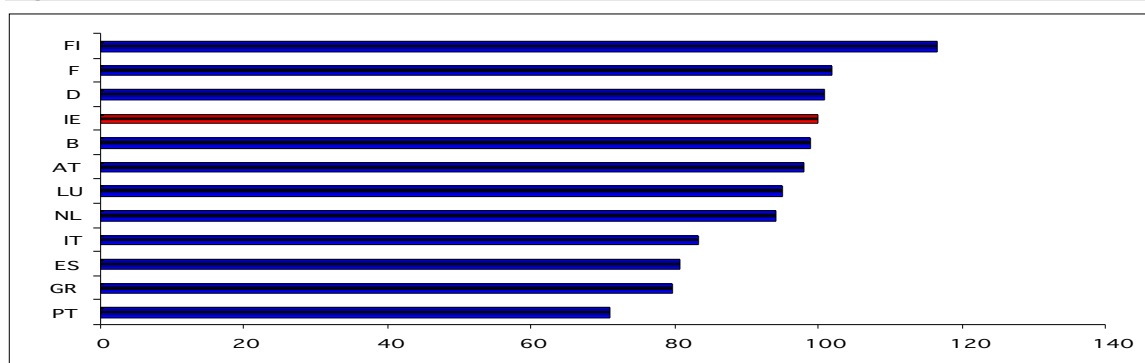
The first point to note from Table 3.1 is Ireland's ascent through the ranks of Europe's (i.e. the eurozone or EU12) most expensive countries. In 1995, Eurostat ranked Ireland the 8th most expensive country of the EU12. By 1998, this had translated into a number six ranking and had reached number four by 1999. Ireland's ascent through the ranks of the eurozone's most expensive at a time when consumer price inflation approximated that for the eurozone as a whole partially reflects the fact that eurozone-wide inflation in the period 1996 to 1999 (3.8%) was fuelled by price developments in the poorer/ low-cost eurozone members, most notably Greece (12.8%), Spain (6%), Portugal (6.4%),

Italy (5.7%) and Ireland (6%). However, it should be borne in mind that the methodology underpinning the collation of PPP comparative price data is not ideally suited to year-on-year analysis – and rankings contained in Table 3.1 should be interpreted as indicative of a general trend only.

Consumer product and service categories where Ireland was found to be particularly expensive in 1999 are “milk, cheese and eggs” (1), “fruit, vegetables and potatoes” (3), “transport” (2), off-licence “alcoholic beverages” (2), “tobacco” (1) and “pubs and restaurants” (2).

Figure 3.1 supplements the foregoing, by showing an index of the cost of consumer goods and services in all eurozone members in 1999.

Figure 3.1 Index of Cost of Consumer Goods and Services, 1999 (IRL = 100)



Source: Eurostat (PwC Derived)

Figure 3.1 shows that Finland, Germany and France were more expensive than Ireland in 1999. In this year, Finnish consumers paid, on average, 17% more for goods and services than their Irish counterparts. The respective differentials in the case of France and Germany were 2% and 1%. Portugal was the cheapest country in the eurozone in 1999 (71% of Irish price levels), followed by Greece (80%), Spain (81%) and Italy (83%).

Table 3.2 provides a more detailed look at eurozone price differentials by member and consumer product/ service category in 1999 – with shading indicating that a country is more expensive than Ireland.

Table 3.2 Index of Price of Consumer Goods/ Services by Eurozone Members, 1999 – IRL = 100

	PT	GR	ES	IT	NL	LU	AT	B	D	F	FI
Total Consumption	71	80	81	83	94	95	98	99	101	102	117
Food and Non Alcoholic Beverages	84	91	83	95	91	103	102	101	99	105	111
<i>All Food</i>	83	90	84	95	92	105	103	101	99	107	111
<i>Bread and Cereals</i>	79	89	107	95	81	100	104	97	95	108	121
<i>Meat</i>	80	75	80	99	114	116	113	112	119	116	107
<i>Fish</i>	135	107	100	122	110	132	157	144	140	138	113
<i>Milk, Cheese and Eggs</i>	79	87	75	92	79	84	83	97	74	93	91
<i>Fruit and Vegetables</i>	68	89	73	84	84	106	91	84	98	100	108
<i>Oils and Fats</i>	105	126	113	103	84	122	124	119	107	122	126
<i>Other Food</i>	105	114	91	94	92	92	103	94	88	103	124
<i>Non Alcoholic Beverages</i>	94	98	70	89	87	91	93	105	102	85	119
Alcohol, Tobacco and Narcotics	47	52	44	64	63	53	65	66	62	71	101
<i>Alcoholic Beverages</i>	46	57	44	58	62	54	62	61	54	64	110
<i>Tobacco</i>	48	51	45	68	65	51	67	71	70	77	90
Clothing and Footwear	103	128	114	120	128	149	137	148	134	124	130
Gross Rents, Fuel and Power	38	63	69	58	85	105	86	88	112	97	107
<i>Rentals for Housing</i>	27	63	70	56	77	115	79	85	113	95	114
<i>Electricity, Gas and other Fuels</i>	108	71	93	105	128	90	103	99	108	104	92
Furnishings, Equipment & Maintenance	73	85	85	91	111	98	101	102	103	108	100
Health	101	62	102	103	74	110	117	91	97	100	131
Transport	90	71	83	85	100	79	99	94	91	96	117
Communications	86	68	85	95	142	65	124	145	102	67	142
Recreation and Culture	86	91	92	95	98	98	106	110	100	109	128
Education	71	80	93	115	122	190	137	139	168	146	138
Pubs and restaurants	70	93	77	86	75	87	85	92	81	91	105
Miscellaneous Goods and Services	74	94	93	100	109	88	111	110	110	130	134

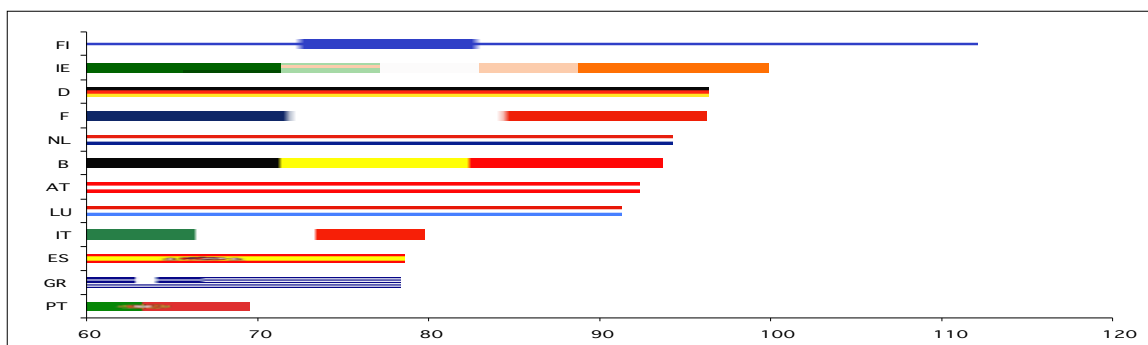
Source: Eurostat (Shading indicates country more expensive than Ireland)

Remarkable findings from Table 3.2 are: a) the relative inexpensiveness of clothing and footwear in Ireland; b) the relative inexpensiveness of fish with two countries only coming close to Ireland, i.e. Spain and Greece; c) the very large price differentials between Ireland and most eurozone countries for alcoholic beverages and tobacco; d) the high cost of residential rents in Ireland – more than 23% higher than in the Netherlands; e) the high cost of “pubs and restaurants” (the most significant element of which is pubs in the case of Ireland) – with only Finland being more expensive in 1999; f) the high cost of “milk, cheese and eggs” and “fruit and vegetables”; and g) the high cost

of transport in Ireland – attributable, in part, to high rates of excise on private motor vehicles (see Chapter 4).

The most recent year for which PPP comparative price data is available from Eurostat is 1999. To compensate for this, PricewaterhouseCoopers updated 1999 comparative price data using inflation figures for the 12 eurozone economies – top line findings are shown for February 2002 in Figure 3.2. While not fully consistent with the approach taken to the annual updating exercise undertaken by Eurostat (where the comparative prices of two-thirds of the basket of goods are updated using inflation data only), it should be noted that the comparative price data presented in Figure 3.2 is subject to a margin of error and should, therefore, be read as indicative only.

Figure 3.2 Index of Total Cost of Consumer Goods and Services, February 2002 (IRL = 100)

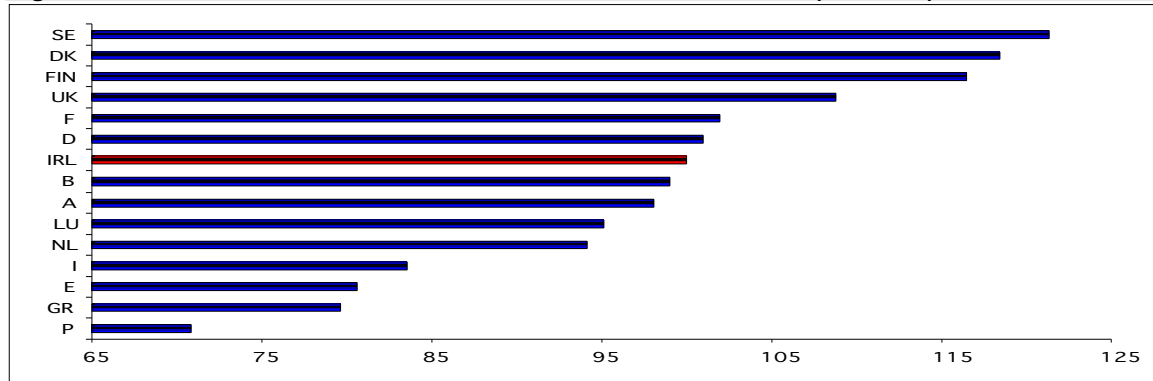


Source: Eurostat (PwC Derived)

Relatively high levels of inflation in Ireland in the period since end 1999 (a by-product of economic growth that was unsurpassed elsewhere in the eurozone) have resulted in a deterioration of the relative affordability of consumer goods and services in Ireland. Based on PwC's analysis and the assumptions made, it would appear that Ireland may have moved up the ranking to become the second most expensive country in the eurozone – with only Finland more expensive. However, the price differential between Ireland and France and Germany is relatively small – and should be interpreted with caution in view of the many methodological difficulties underpinning comparative price studies (see Chapter 2).

In addition, while the Terms of Reference for this study require that we examine relative consumer prices in the eurozone only, it is instructive to consider the relative cost of consumer goods/ services in Ireland in the context of the EU15 – see Figure 3.3.

Figure 3.3 Index of Cost of Consumer Goods and Services EU15, 1999 (IRL = 100)



Source: Eurostat

In 1999, Ireland was the 7th most expensive country in the EU15 – marginally behind Germany and France, and significantly behind the UK, Sweden and Denmark. Relatively high rates of inflation in Ireland since the end of 1999 mean that Ireland may have now over-taken France and Germany to become the second most expensive eurozone country. However, the significant price differentials that existed between Ireland, the UK, Denmark and Sweden in 1999 mean that high levels of inflation in Ireland in recent years have, most likely, not been sufficient to push the cost of consumer goods and services in Ireland ahead of those in the UK. In other words, in all likelihood, Ireland is currently the fifth most expensive country in the EU15.

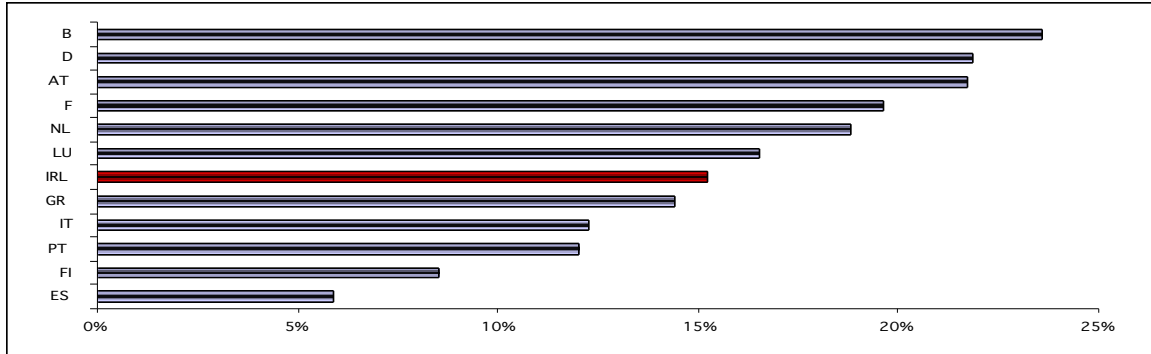
3.3 Mercer Human Resource Consulting (Non-Nationally Representative)

Eurostat findings in relation to the relative cost of foodstuffs in Ireland find support in the findings of consumer price surveys conducted by Mercer Human Resource Consulting. The relative cost of a random selection of foodstuffs is shown in Table 3.3.

In mid-priced retail outlets, Ireland emerges as the fourth most expensive country for food-stuffs in the eurozone – compared with a ranking of two in low-priced stores and a ranking of eight in high-priced stores. Different rankings across retail outlet type point to the fact that Ireland's retail composition is more price homogenous than that of other countries. This is evident in Figure 3.4, which shows the level of dispersion (i.e. coefficient of variance) of foodstuff prices between low, medium and high priced stores for

the 12 eurozone members. This shows Ireland to have a retail composition that is just marginally more price diversified than those of Greece, Italy and Portugal and significantly less price diversified than those of Belgium, Germany, Austria, Finland or the Netherlands. The advent of German-owned discounters into the Irish market (i.e. Aldi and Lidl) in recent years might see Ireland converge on Northern European standards in this regard in the future, although unsubstantiated reports suggest that these discounters may be behaving as “price followers” in the Irish market.

Figure 3.4 Price Dispersion between Low, Medium and High Cost Food Retail Outlets, Eurozone Members 2001



Source: Mercer Human Resource Consulting (PwC Derived)

Table 3.3 Relative Cost of a Food Shopping List in Ireland, 2001 (1 = Most Expensive in Eurozone)

Retail (Food)	Low-priced Stores	Mid-priced Stores	High-priced Stores
Milk, pasteurised whole milk (1lt)	3	5	7
Butter, table quality (500 gr)	9	11	11
Eggs, large, grade A (12)	4	1	4
Bread, white sliced toast (1kg)	10	11	9
Rice, long grain type (1kg)	6	7	7
Sugar, granulated white (1kg)	3	5	7
Cornflakes, plain (375 gr)	9	12	12
Instant coffee (125 gr)	2	8	10
Tea in bags (25)	12	12	12
Coca Cola (1lt)	3	4	8
Mineral water, sparkling (1lt)	5	5	6
Corn oil, for frying (1lt)	5	6	6
Potatoes (1kg)	1	1	3
Onions (1kg)	3	4	4
Tomatoes (1kg)	3	3	3
Lettuce (1kg)	1	1	1
Oranges (1kg)	1	2	2
Apples (1kg)	1	2	4
Bananas (1kg)	5	4	7
Tin of Peas (250 gr)	7	7	8
Tin of Peaches in Halves (250 gr)	5	5	2
Beef, for roast beef (1kg)	4	6	6
Chicken, whole ready for roasting (1kg)	1	1	1
Lamb, leg with bone (1kg)	10	10	11
Bacon strips (1kg)	8	7	7
Fish, fresh salmon or sole filet (1kg)	3	7	9
Potato chips, natural flavour (150 gr)	2	3	4
Fine table salt (500gr)	1	1	1
Black pepper whole or ground (50 gr)	7	11	10
Biscuits, butter biscuits (200 gr)	2	1	1
Ketchup (340 gr)	6	9	11
Baby food, meat & vegetables (130 gr)	5	7	9
Instant soup, box of 4 individual (75 gr)	1	2	3
Total Food Retail	2	4	8

Source: Mercer Human Resource Consulting (PwC Derived) (Shading indicates Ireland in Top 6)

Table 3.3 shows Ireland to be the most expensive country (mid-priced retail outlets only) in the eurozone in which to buy potatoes, chicken, eggs, lettuce, butter biscuits and table salt. With the exception of chicken, meat products are found to be relatively inexpensive in Ireland. The disaggregation of the “milk, cheese and eggs” category from Table 3.1 here suggests that eggs are the primary driver of relative cost in Ireland, although cheese is not included on the shopping list. Mercer data suggest that Ireland is somewhat more expensive for fruit and vegetables than the ranking of three in Table 3.1

would suggest, but much depends on the composition of the fruit and vegetable basket examined for the Eurostat data – details of which are not available. Finally, the Eurostat ranking of five for “other foodstuffs” is broadly consistent with Mercer findings, which show the relative cost of “other foodstuffs” in Ireland to be mixed, ranging from the most expensive in the case of table salt to the second cheapest in the case of black pepper.

Table 3.4 shows the relative cost of non food retail items or consumables in Ireland.

Table 3.4 Relative Cost of Non-food Shopping List in Ireland, 2001 (1 = Most Expensive in Eurozone)

Retail (Non-Food)	Low-priced	Mid-priced	High-priced
Laundry detergent normal (5 kg)	2	2	2
Dishwashing machine detergent (1kg)	6	4	9
Furniture polish (330 gr)	12	12	12
Light bulbs (2 bulbs, 60 watt)	3	3	8
Two batteries, AA size	2	1	3
Tampon (box of 40 / regular)	1	1	5
Toilet tissue (2 rolls)	2	1	2
Soap, 1 bath size (150 gr)	2	3	6
Shower gel (250 ml)	1	1	3
Hair shampoo 2 in 1 (200 ml)	8	3	7
Disposable diapers (box of 52)	3	2	4
Toothpaste, with fluoride (120 gr)	1	1	4
Deodorant, roll-on (50 ml)	12	12	12
Razor blades (5 blades)	1	1	1
Total Non-Food Consumables	2	2	3
Total Food and Non-Food Consumables	1	1	4

Source: Mercer Human Resource Consulting (PwC Derived) (Shading Indicates Ireland in Top 6)

In contrast to the situation for foodstuffs, there is a broad consistency in the ranking of the cost of non food retail items/ consumables in Ireland across low, medium and high-priced retail outlets. Ireland emerges as the second most expensive country in which to buy non-food consumables in low and mid-priced retail outlets and the third most expensive in high-priced shops. The prevalence of number one rankings in Table 3.4 is striking – with just two products emerging as relatively cheap in Ireland, namely furniture polish and roll-on deodorants.

For all goods (food and non-food consumables), Ireland emerges as the most expensive country in which to buy a selection of food and non-food consumables in low and mid-

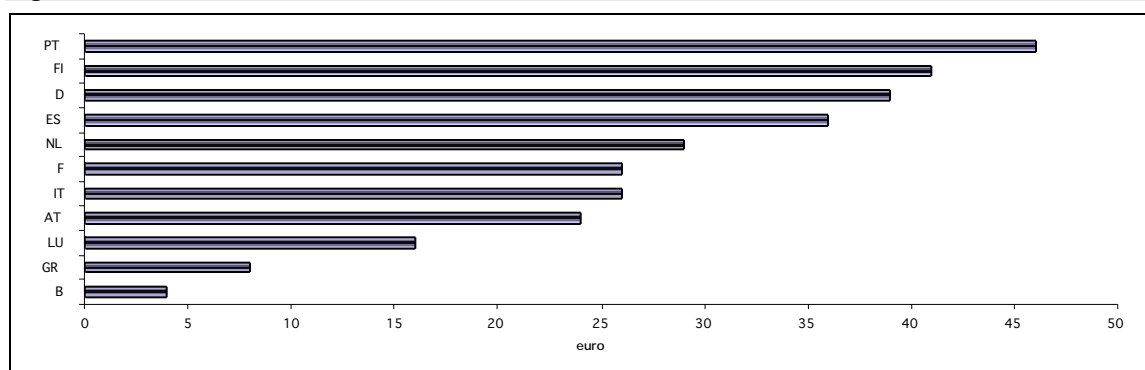
priced stores, and the fourth most expensive in high price stores. Actual price differentials are shown in Table 3.5 and, graphically, in Figure 3.5.

Table 3.5 Actual € Prices for Basket of Consumables, Eurozone Members 2001

All Food Retail												
€	IRL	PT	GR	ES	IT	LU	AT	B	NL	D	F	FI
High	121	95	105	94	121	125	135	153	128	127	126	94
Medium	105	84	86	96	103	107	106	123	103	98	102	87
Low	96	76	77	86	94	89	80	98	91	86	79	80
IRL = 100	IRL	PT	GR	ES	IT	LU	AT	B	NL	D	F	FI
High	100	78	87	77	100	103	111	126	105	105	104	78
Medium	100	80	82	92	99	102	101	118	98	94	98	83
Low	100	79	80	89	98	93	83	102	94	89	83	83
All Retail/ Supermarkets												
€	IRL	PT	GR	ES	IT	LU	AT	B	NL	D	F	FI
High	196	158	208	155	179	183	206	229	193	185	188	148
Medium	187	141	179	151	161	171	163	183	158	148	161	146
Low	166	131	165	142	148	143	127	157	138	130	127	133
IRL = 100	IRL	PT	GR	ES	IT	LU	AT	B	NL	D	F	FI
High	100	81	107	79	92	94	105	117	99	94	96	76
Medium	100	75	96	81	86	92	87	98	84	79	86	78
Low	100	79	99	85	89	86	76	94	83	78	76	80

Source: Mercer HR Consulting (PwC Derived) (Shading indicates countries more expensive than Ireland)

Figure 3.5 € Difference in the Cost of a Basket of Consumables between IRL and other Eurozone, 2001



Source: Mercer (PwC Derived)

For the designated basket of food and non-food consumables in a medium-priced store, Irish consumers pay considerably more than their Portuguese (€46), Finnish (€41), German (€39) and Spanish (€36) counterparts. Price differences are most modest in the case of Belgium (€4) and Greece (€8).

Tables 3.6 and 3.7 show the relative prices of off-licence alcohol and tobacco in Ireland in 2001.

Table 3.6 Relative Cost of Off-licence alcohol and tobacco in Ireland, 2001 (1 = Most Expensive in Eurozone)

Off-licence alcohol and tobacco	Low-priced	Mid-priced	High-priced
Beer, imported type (0.33 lt)	2	3	3
Wine, good table quality (0.75 lt)	1	1	1
Gin, English imported (0.75 lt)	2	2	2
Cognac, French VSOP (0.75 lt)	3	4	6
Cigarettes (pack of 20 cigarettes)	1	1	1
Total Off-licence alcohol and tobacco	2	2	3

Source: Mercer (PwC Derived) (Shading indicates Ireland in Top 6)

Table 3.7 Actual € Costs of Off-licence alcohol and tobacco, Eurozone Members, 2001

€	IRL	PT	GR	ES	IT	LU	AT	B	NL	D	F	FI
High	73	63	68	46	48	59	77	59	52	49	59	84
Medium	68	59	56	50	39	52	57	47	47	43	50	84
Low	73	58	50	48	37	49	51	42	41	40	45	92
IRL = 100	IRL	PT	GR	ES	IT	LU	AT	B	NL	D	F	FI
High	100	86	93	62	66	81	105	81	72	67	80	114
Medium	100	88	82	74	58	77	84	69	69	64	73	124
Low	100	81	69	66	52	67	70	58	56	55	63	126

Source: Mercer (PwC Derived) (Shading indicates countries more expensive than Ireland)

As per Eurostat findings, Ireland is the most expensive country in the eurozone for cigarettes and features among those countries where it is most expensive to buy alcohol. More specifically, Ireland is the most expensive country in which to buy a bottle of wine, the second most expensive in which to buy a bottle of gin, the third most expensive in which to buy a bottle of imported beer and the fourth most expensive in which to buy a bottle of good brandy. The total cost of the basket of off-licence alcohol and tobacco goods shown in Table 3.6 in Ireland in 2001 is estimated at €68 (medium-priced outlet), compared with €39 in Italy, €43 in Germany, and €47 in Belgium and Holland. Finland is the only eurozone country in which it is more expensive to buy this basket of goods – with total cost in 2001 standing at €84 or 124% of the cost in Ireland.

Table 3.8 shows the prices of a selection of medical goods and services for eurozone countries in 2001, with shading indicating a country more expensive than Ireland.

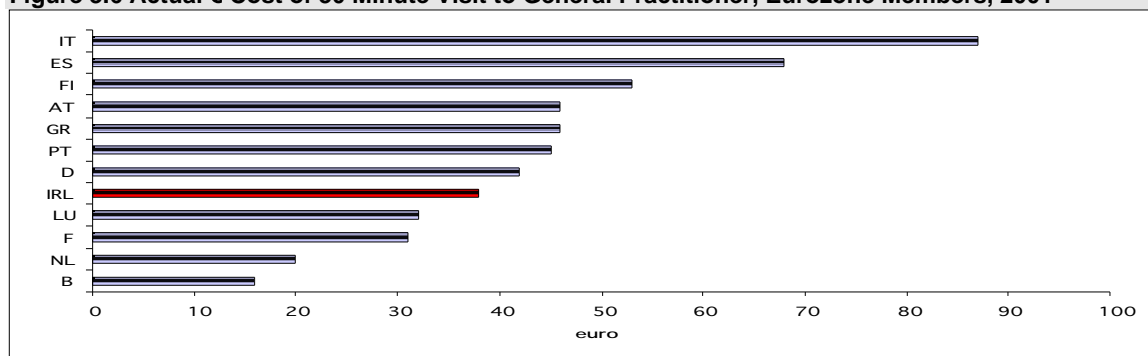
Table 3.8 Actual € Cost of Selected Medical Services/ Products, Eurozone Members, 2001

€	IRL	PT	GR	ES	IT	LU	AT	B	NL	D	F	FI
Antibiotics, Augmentin 500, box of 12	20	15	6	6	16	13	14	18	10	44	11	17
Private doctor, General practitioner 30mins	38	45	46	68	87	32	46	16	20	42	31	53
Box of 20 band-aids	3	1	2	2	1	2	2	2	2	1	3	3
Coughing & throat relief, box of 20	3	3	2	3	7	5	8	2	2	3	4	3
IRL = 100	IRL	PT	GR	ES	IT	LU	AT	B	NL	D	F	FI
Antibiotics, Augmentin 500, box of 12	100	76	28	29	80	64	70	88	47	219	52	83
Private doctor, General practitioner 30mins	100	118	122	178	227	84	121	43	53	111	83	138
Box of 20 band-aids	100	53	75	73	52	67	69	81	85	52	101	99
Coughing & throat relief, box of 20	100	90	52	105	210	155	253	62	74	108	126	110

Source: Mercer (PwC Derived) (Shading indicates countries more expensive than Ireland)

According to Mercer data, Ireland was the second most expensive country in the eurozone in which to purchase antibiotics (€20 vs. €6 in Spain and €44 in Germany) and band-aid in 2001. With regard to GP fees and over-the-counter coughing tablets, Ireland is relatively inexpensive – ranking eight of twelve. The estimated cost of visiting a GP in Ireland is €38, compared with €87 in Italy and €53 in Finland. Countries where the cost of a GP visit is less than in Ireland are Belgium (€16), Holland (€20), France (€31) and Luxembourg (€33) – see Figure 3.6. It is, however, important to note that the role of GPs in public healthcare systems differs considerably between eurozone countries, as do reimbursement systems.

Figure 3.6 Actual € Cost of 30 Minute Visit to General Practitioner, Eurozone Members, 2001



Source: Mercer (Derived)

Table 3.9 shows actual and relative price data for restaurants and bars.

Table 3.9 Actual € Prices in Restaurants and Bars, Eurozone Members, 2001

€	IRL	PT	GR	ES	IT	LU	AT	B	NL	D	F	FI
Elegant 3 course dinner for 2 persons	155	99	100	162	126	144	164	140	104	125	164	122
1 cup of coffee, including service	2	1	3	1	2	2	3	2	1	2	2	3
Fast food hamburger menu	6	3	5	5	4	5	5	5	4	4	5	6
One glass of Mineral water or soft drink	3	1	3	1	2	2	3	3	1	2	3	3
One glass of Heineken beer	3	2	3	2	4	2	3	3	2	2	5	3
Index – IRL = 100												
	IRL	PT	GR	ES	IT	LU	AT	B	NL	D	F	FI
Elegant 3 course dinner for 2 persons	100	64	65	105	81	93	106	90	67	81	106	78
1 cup of coffee, including service	100	64	128	60	93	86	129	98	59	86	69	119
Fast food hamburger menu	100	55	79	85	70	83	93	86	78	70	85	98
One glass of Mineral water or soft drink	100	47	92	42	63	55	92	90	50	86	114	95
One glass of Heineken beer	100	85	111	88	141	61	131	123	63	89	187	116

Source: Mercer (PwC Derived) (Shading indicates country more expensive than Ireland)

Ireland is the most expensive country in the eurozone in which to have a fast food hamburger meal, the second most expensive in which to have a mineral water in a restaurant/ café, the third most expensive in which to have a coffee out, the fourth most expensive in which to go out for a meal and the seventh most expensive in which to have a glass of Heineken in a bar. The ranking in respect of the glass of Heineken is interesting in view of the high rates of excise and VAT charged on alcohol in Ireland, and may reflect cultural factors, i.e. virtual absence of a “pub culture” in many eurozone countries and low turnover relative to fixed costs compared with Ireland.

Mercer also produce comparative price data in relation to consumer durables, recreation and leisure, transport, utilities and clothing – summary findings for which are presented in Table 3.10, with shading indicating that Ireland ranks among the most expensive.

Table 3.10 Relative Cost of Selected Goods/ Services in Ireland (1 = Most Expensive)

Recreation and Leisure		Transport/ Utilities	
Color film (36 exposures, 100 ASA)	1	Economy car (up to 1800cc, 4 door)	1
Digital television (63 cm / 25 inch)	10	Price of 4 new summer radial tires	7
Video cassette machine, DVD model	12	1 liter of engine oil	7
Electronic game, Nintendo/Playstation	7	1 liter of gasoline	6
Family game, Monopoly, Scrabble	3	Taxis - Initial meter charge	4
Renting cost of 1 video movie for a day	3	Taxis - Rate per kilometer	9
Compact disc, popular artist	3		
International weekly magazine	2	Monthly charge for one telephone line	2
1 issue of local daily newspaper	2	Cost for 3 minute local call from home	5
International daily newspaper	6	Monthly energy costs, house 200 sqm	11
Cinema, international release, 2 seats	5		
Clothing and Footwear		Consumer Durables	
Blue jeans, for men or women	8	Frying pan, with teflon coating (25 cm)	3
Ladies' bras	12	Electric toaster (2 slices)	12
Men's Two Piece Suit	3	Electric steam iron	10
Men's Leather Shoes	12	Electric Hairdryer, standard model 1600	3
Dress, ready to wear or 2 piece suit	2	Electric Shaver	12
Children's blue jeans	4	Clothes washing machine, 5kg capacity	9
Children's shoes	1	Tumble dryer, 5kg capacity	11
Dry cleaning - men's blazer	10	Dishwasher, 12 servings capacity	12
Dry cleaning - ladies' dress	8	Microwave, 800/900 watt model	2
		Vacuum cleaner, 1200/1400 watt model	1
		Electric cooker, 4 electric hot plates	2
		Refrigerator 200 lt + Freezer 50 lt	12

Source: Mercer HR Consulting (PwC Derived) (Shading indicates Ireland in Top 6)

At aggregate level, the above table indicates that Ireland is relatively inexpensive for consumer durables, heating fuels/ electricity and transport (excluding the cost of private cars). Ireland was found to be expensive for a small number of consumer durables (e.g. vacuum cleaner), childrens' shoes, newspapers, magazines and colour film for a camera. The finding with regard to childrens' shoes is particularly interesting in view of the fact that childrens' clothes and shoes are VAT exempt in Ireland.

The mixed nature of the findings presented in Table 3.10 is common to all commodity-specific comparative price surveys of this nature – levels of dispersion increasing greatly with the degree of product/ service disaggregation.

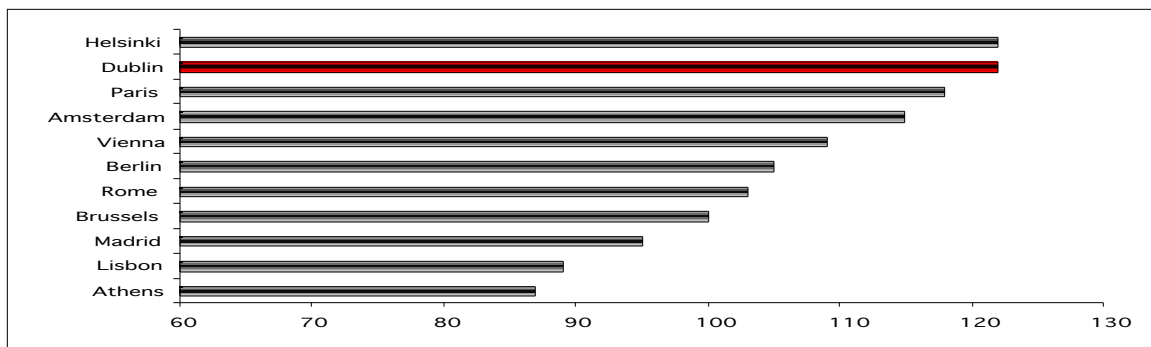
3.4 European Commission

3.4.1 Eurostat/ Cost of Living Index (Brussels = 100)

The European Commission, in conjunction with Eurostat, uses the price survey data collected for the purpose of formulating PPPs to determine the relative cost of consumer goods/ services in selected European cities, having regard to the typical consumption profile of Commission officials. The move away from “national representativeness” presents us with a second series of price data that is worthy of analysis.

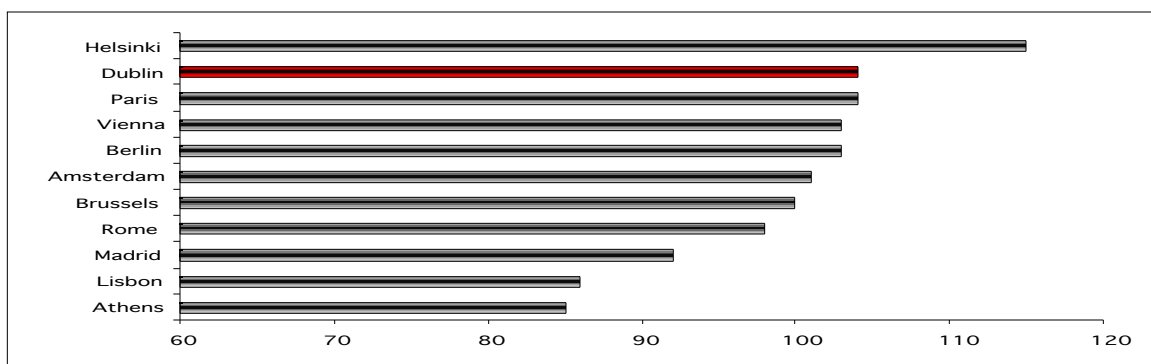
Figures 3.7 and 3.8 show an index of the cost of consumer goods/ services including and excluding rent for 2001, where Brussels is equal to 100.

Figure 3.7 Relative Cost of Consumer Goods/ Services for EC Employee (incl. rents), 2001



Source: European Commission/ Eurostat

Figure 3.8 Relative Cost of Consumer Goods/ Services for Commission Employee (excl. rents), 2001



Source: European Commission/ Eurostat

The relative cost of funding the average lifestyle of a European Commission official in 2001 was greatest in Helsinki and Dublin – where the cost of procuring selected consumer goods and services was more than 120% of the equivalent cost in Brussels. Excluding rents, Dublin falls back to parity with Paris at 104%, while still marginally ahead of Vienna (103), Berlin (103), Amsterdam (101), Brussels (100) and Rome (98). The narrow range of price differentials between these lead cities is noteworthy.

Table 3.11 shows an index of the cost of goods/ services typically consumed by European Commission officials for Dublin, where Brussels is equal to 100 and shading indicates that Dublin is more expensive than Brussels.

Table 3.11 Index of Relative Cost of Consumer Goods/ Services for EC Employee, 1999 to 2001

	Index - Brussels = 100			Ireland's Rating (1 = Most Expensive)		
	1999	2000	2001	1999	2000	2001
Food	99	105	106	6	2	2
Alcohol, Beverages and Tobacco	181	189	189	1	1	1
Clothing and Footwear	70	66	65	11	11	11
Housing, Water, Electricity, Gas and other Fuels	148	162	179	3	2	1
Furniture, Household Equipment and Maintenance	99	112	112	7	3	1
Health	108	114	120	7	6	4
Transport	112	116	116	3	2	2
Communications	87	85	101	3	2	3
Recreation and Culture	91	93	97	10	9	7
Education	72	75	77	7	7	6
Pubs and restaurants	111	116	120	2	2	1
Miscellaneous Goods and Services	86	88	96	9	9	8
Total	110	116	122	4	3	–
Total excluding Rents	98	103	104	7	5	2

Source: European Commission (PwC Derived) (Shading indicates where Dublin is more expensive than Brussels)

The first point to note is Dublin's ascent through the hierarchy of the eurozone's most expensive cities, with Dublin commanding second rank in 2001 compared with seventh in 1999. The respective rankings for harmonised and weighted comparative prices (i.e. Eurostat PPPs) are fourth and second. Expensive categories of good/ service are alcohol, beverages and tobacco (189% of Brussels prices), housing, (179%), furniture, household equipment and maintenance (112%) and pubs and restaurants (120%). Clothing and footwear is cheaper in just one of the other cities reviewed.

3.4.2 DG Internal Market and Competition/ Pricing Surveys

DG IV (Competition) of the European Commission prepares an annual review of car prices across Europe. Findings for a selection of popular cars in Ireland are presented in Table 3.12, with shading indicating that a country is more expensive than Ireland.

Table 3.12 Actual € Car Prices in Eurozone Countries, November 2001												
	IRL	A	B	D	E	F	FIN	GR	I	L	NL	P
Medium Segments												
Renault Megane	18,152	17,300	16,456	16,586	15,742	16,700	20,953	15,868	17,081	15,640	17,975	21,025
VW Golf	15,322	14,757	13,700	13,950	14,230	13,460	16,905	12,718	14,227	13,228	16,028	16,971
Opel Astra	18,136	15,192	13,210	14,223	12,393	13,027	18,040	14,143	12,694	12,554	16,152	16,925
Small Segment												
Peugeot 206	12,789	11,484	10,495	11,140	10,960	10,839	14,665	9,825	10,522	9,975	12,555	11,719
Yaris	14,876	12,112	11,140	11,182	11,465	9,764	16,848	11,041	10,652	10,588	13,437	12,286
Opel Corsa	13,225	10,677	9,089	10,373	9,532	8,919	12,889	9,287	8,782	8,638	11,281	10,362
Large Segments												
Audi A4	32,984	29,184	25,406	26,073	27,334	26,882	39,486	32,215	27,974	24,346	34,345	33,443
BMW 318i	33,246	28,219	25,188	25,150	26,028	25,605	37,142	33,201	25,989	24,775	30,366	34,484
Index – IRL = 100	IRL	A	B	D	E	F	FIN	GR	I	L	NL	P
Medium Segments												
Renault Megane	100	95	91	91	87	92	115	87	94	86	99	116
VW Golf	100	96	89	91	93	88	110	83	93	86	105	111
Opel Astra	100	84	73	78	68	72	99	78	70	69	89	93
Small Segment												
Peugeot 206	100	90	82	87	86	85	115	77	82	78	98	92
Yaris	100	81	75	75	77	66	113	74	72	71	90	83
Opel Corsa	100	81	69	78	72	67	97	70	66	65	85	78
Large Segments												
Audi A4	100	88	77	79	83	82	120	98	85	74	104	101
BMW 318i	100	85	76	76	78	77	112	100	78	75	91	104

Source: European Commission (PwC Derived) (Shading indicates countries more expensive than Ireland)

As is well documented, Ireland counts among the countries in the eurozone where it is most expensive to buy a car. In the case of two of the nine car models reviewed (i.e. Opel Astra and Opel Corsa), Ireland is the most expensive country in the eurozone. Finland assumes this status in the case of all remaining models, and the cost differential between Ireland and Finland is sometimes very significant (e.g. €6,500 in the case of an Audi A4). Holland is the only other country in Europe where the price of any car

reviewed is more expensive than in Ireland. A large share of the price differential is attributable to VRT in Ireland – an issue revisited in the next chapter.

Finally, DG Internal Market has prepared a number of comparative price surveys across Europe. Findings from these surveys were reviewed in the context of this study, but found not to be particularly relevant in view of: a) their very tight product coverage; b) their exclusion of Dublin or Ireland from the survey.

3.5 UBS Warburg

UBS Warburg (the Swiss-based bank) conducts an annual survey of the prices of consumer goods and services in a selection of international cities. This is one of the most publicly available sources of comparative price data. Table 3.13 presents summary findings for those eurozone cities included – with shading indicating a city more expensive than Dublin.

	Food Prices	Basket of Goods/ Services	Apartment Rents	Household Appliances	Pubs and restaurants	Price of Services	Price of Clothes	Price of Taxis
Amsterdam	106	102	140	98	76	100	128	149
Athens	78	87	78	127	73	89	103	51
Barcelona	74	79	81	112	54	71	94	55
Brussels	94	96	86	113	57	96	181	81
Dublin	100	100	100	100	100	100	100	100
Frankfurt	105	105	117	111	84	107	94	127
Helsinki	111	115	87	126	76	129	128	116
Lisbon	80	78	96	114	41	64	78	44
Luxembourg	93	98	125	95	70	100	119	171
Madrid	76	76	98	105	57	79	88	51
Milan	103	92	98	91	78	86	113	116
Paris	113	112	141	105	68	114	134	110
Vienna	106	111	139	119	57	104	122	130

Source: UBS Warburg (Shading indicates countries more expensive than Ireland)

The overall finding of the survey is that Dublin is the sixth most expensive of the thirteen eurozone cities surveyed – Amsterdam, Frankfurt, Helsinki, Paris and Vienna being more expensive. The city was found to be the most expensive of those reviewed for pubs and restaurants services and also relatively expensive for services in general. In contrast to other studies, Dublin was found to be not particularly expensive for apartment

rents, but here it is felt that those conducting the survey must have experienced some difficulty in locating the four bedroom apartment specified. Clothes and taxi fares were found to be relatively low cost. It is important to note that the consultants have limited visibility of the methodology underpinning UBS findings, and the descriptions attaching to certain of the products/ services included for comparison purposes suggest that findings may not have a particular applicability to Ireland.

3.6 Key Chapter Findings

- **data issues** – in advance of presenting findings from this chapter, it is worth re-noting that there are some considerable issues surrounding the comparative price data presented in the foregoing chapters, certain of which are common to all price comparison exercises and certain of which are source specific. While the consultants compensated for this through the use of two major information sources, with complementary methodologies, i.e. representative and non-representative, findings presented here should be read as indicative only;
- **fourth most expensive eurozone country in 1999** – Eurostat produced comparative price data show Ireland to be the fourth most expensive country in the eurozone in 1999, up from 8th position in 1995. Reflecting high rates of inflation in recent years – a by-product of rapid economic growth – it is most probable that the relative cost of consumer goods and services in Ireland has increased in the period since 1999. This contention is supported by PricewaterhouseCoopers extrapolation of Eurostat's 1999 PPP comparative price data to the present time, and by Eurostat 2001 data which estimates the living costs of a European Commission official located to a selection of eurozone cities. Both indicate that Dublin/ Ireland featured among the most expensive eurozone cities/ countries in 2001/2002. Mercer data does not lend itself to the computation of an overall ranking for Dublin/ Ireland versus the eurozone as a whole. A selection of the findings for the most significant product/ service categories are now described:

- **food and non alcoholic beverages** – Eurostat (PPP estimates for 2002) and Mercer rank Ireland relatively equally in terms of the cost of buying food in Ireland. According to updated Eurostat PPP data (see Annex 1), Ireland is the fourth most expensive country in which to buy food – up from the 9th most expensive in 1995. Mercer data show Ireland to be the fourth most expensive country in which to buy food, but also show that discount buying opportunities in the Irish retail sector are relatively limited. At product category level, some differences emerge between Eurostat and Mercer data. For example, Eurostat data shows Ireland to be the most expensive country for “milk, cheese and eggs”, while Mercer data show Ireland to be reasonably priced for milk and butter, but very expensive for the purchase of eggs. Findings regarding non alcoholic beverages are broadly similar between the two sources;
- **non-food retail** – it is interesting to note that when non-food retail items/ consumables are placed in the Mercer basket of food goods, Ireland emerges as the most expensive country in the eurozone in which to buy a basket of supermarket goods. This was the case in low and medium-priced stores. In high-price stores, Ireland’s ranking slipped back to four;
- **alcohol/ tobacco** – are the product/ service categories most commonly identified as being particularly expensive in Ireland vis-à-vis the rest of the eurozone. Ireland ranks as the second most expensive country in which to buy alcohol (Eurostat and Mercer), after Finland, and the most expensive in which to buy tobacco products (Eurostat and Mercer);
- **clothing and footwear** – Eurostat data shows Ireland to be consistently among the cheapest countries in the eurozone, in which to buy clothes/ shoes. Mercer price data are more mixed in this regard, while UBS findings lend some support to the Eurostat finding;
- **house rentals** – according to Eurostat, the relative cost of renting a house or apartment in Ireland grew to a greater extent than any other category of good/service between 1995 and 2002 – increasing from a ranking of 11 (i.e. 11th most expensive in the eurozone) to a ranking of 4 in 1999, and an even higher

ranking in February 2002⁶. However, UBS data suggest that there are a number of cities in which renting is more expensive than in Dublin.

- **health and transport** - Eurostat data show the cost of health and transport (separate categories) goods/ services in Ireland to be the third most expensive in the eurozone (2002 – see Annex 1). Transport costs incorporate the cost of private vehicles, an important fact in view of the role of excise duty in this regard. Health costs incorporate hospital services, medical products/ appliances and outpatient services. Ireland is shown to have become relatively much more expensive for this category of expenditure over time – increasing from a ranking of 10 in 1995. Mercer data show Ireland to be relatively inexpensive for outpatient services (€38 or eight most expensive in 2001) and expensive for antibiotics.
- **recreation and culture** - similarly updated Eurostat PPP data show Ireland to be the third most expensive country in which to buy recreational/ cultural goods and services in the eurozone. Historical data is not available owing to the reclassification of this category in 1999. Mercer data lend support to this finding;
- **pubs and restaurants** – finally, Eurostat PPP and non representative data show Ireland to be the most expensive country in the eurozone in which to procure pubs and restaurants services – up from a ranking of two in 1999. Mercer data do not fully support this finding – a small basket of restaurant/ pub services in 2001 costing €168, less expensive than in three other countries, i.e. Spain, Austria and Finland. UBS findings, however, lend support to the Eurostat ranking. Difficulties inherent to finding comparable restaurants/ services may explain differences in this regard.

⁶ Definitional changes mean that developments in the relative cost of residential rents over time may not be fully accurate – although it is clear that prices have risen very sharply in the case of Ireland.

Chapter 4 Determinants of Consumer Price Differentials

4.1 Introduction

This chapter describes those factors that are most fundamental in determining consumer price differences between Ireland and other eurozone members. Those described in this chapter are the following⁷:

- indirect taxation;
- regulatory factors;
- structure of retail/ services sector;
- cost/ productivity of labour;
- national preferences/ price discrimination.

The relative importance of these factors as determinants of consumer price differentials varies between goods and services, as well as across consumer product/ service category. These are now discussed as context to the final chapter which revisits the question of the factors underpinning consumer price differentials between Ireland and the rest of the eurozone.

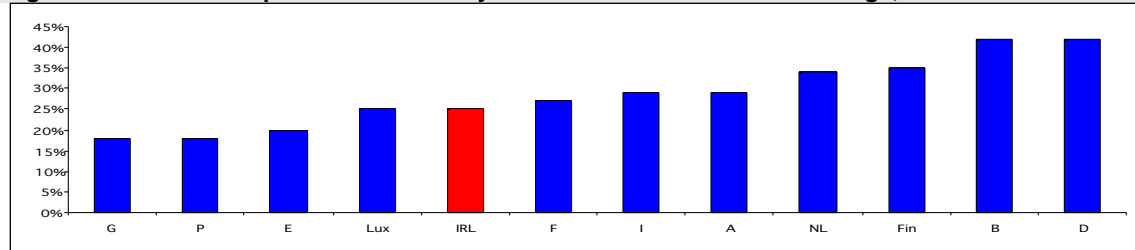
4.2 Indirect Taxation

There are three types of indirect taxation in Ireland – Value Added Tax (VAT), Excise Duty and Vehicle Registration Taxation (VRT). In advance of describing their particular provisions, it worth highlighting that indirect taxation operates in a wider taxation framework, which includes personal and corporate taxation. In Ireland, there is a deliberate policy of promoting employment through relatively low effective rates of

⁷ Geographic location and market size also impact on the relative cost of consumer goods/ services. Difficulties inherent in quantifying the precise impact of these factors on the price of consumer goods/ services at the aggregate level mean that they have been excluded for explicit consideration here. However, transport costs are likely to be most significant in the case of perishable and/ or high bulk items which are imported to the country, and which are relatively low value. Certain types of fruit and vegetable are an example in this regard.

personal taxation (see Figure 4.1). The relatively high rates of indirect taxation described in the pages that followed need to be considered in this context.

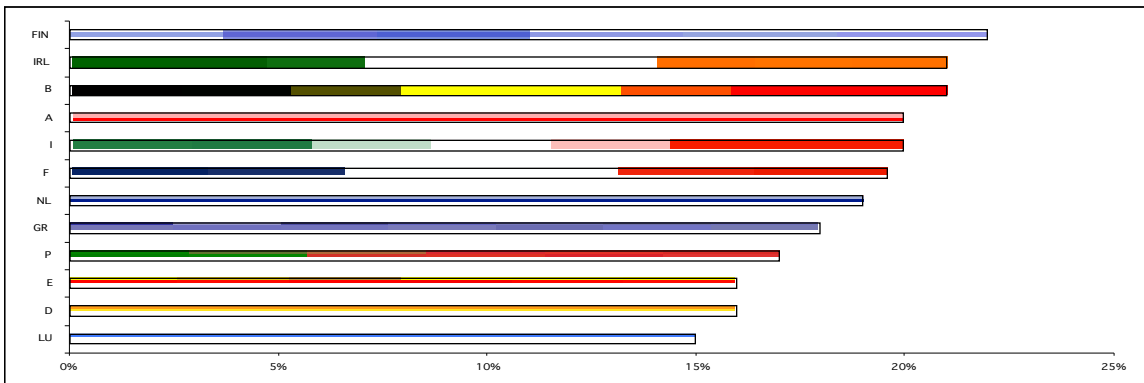
Figure 4.1 Income Tax plus Social Security Contributions as % of Gross Wage, 1998



Source: OECD, 2000

VAT is applied to the largest share of consumer products and services in Ireland. Product/ service coverage is governed by EU Directives, although Ireland has successfully negotiated a series of derogations on the basis of historical VAT norms, i.e. those that pertained prior to the first VAT Directive in 1977. The standard rate of VAT in Ireland at the present time is 21%, up from 20% since the beginning of March. Ireland's standard rate of VAT ranks among the highest in the eurozone (see Figure 4.2).

Figure 4.2 Standard Rates of VAT in Eurozone Members



Source: European Commission

Ireland has the second highest rate of standard VAT in the eurozone, the only country with a higher rate being Finland (22%). Luxembourg (15%), Germany (16%) and Spain (16%) have the lowest rates. VAT structures are very complex, and standard rates co-exist with reduced and super-reduced rates. Again, Ireland has one of the highest rates of reduced VAT in the eurozone – 12.5% compared with 6% for Belgium, Luxembourg and the Netherlands. Finland is the only country with a nominally higher rate of reduced VAT than Ireland (17%), but this co-exists with a second reduced rate of VAT of 8%.

Finally, Ireland is one of six eurozone countries with a “super-reduced” rate of VAT – which in the Irish case has very limited application. The current rate of this VAT is 4.2% - higher than any other country in which this exists. Table 4.1 provides an indication of VAT rates in Ireland by broad category of consumer good/ service⁸.

Table 4.1 VAT Rates by Category of Consumer Good/ Service, Eurozone Members 2002

	A	B	F	FIN	LU	I	NL	D	P	IRL	GR	E
Foodstuffs	10	12	19.6	17	3	10	6	16	12	12.5	8	7
Fruit & Veg.	10	6	5.5	17	3	4	6	7	12	0	8	4
Dairy Products	10	6	5.5	17	3	10	6	7	5	0	8	4
Bread	10	6	5.5	17	3	n.a.	6	7	12	0	8	4
Meat	10	6	5.5	17	3	10	6	7	12	0	8	7
Other Processed Foods	20	21	19.6	22	15	20	19	16	17	21	18	16
Non Alcoholic Beverages	20	21	19.6	22	15	20	19	16	17	21	18	16
Alcoholic Beverages	20	21	19.6	22	15	20	19	16	17	21	18	16
Wine	20	21	19.6	22	12	20	19	16	12	21	18	16
Cigarettes	20	21	19.6	22	15	20	19	16	17	21	18	16
Clothing & Footwear ⁹	20	21	19.6	22	15	20	19	16	17	21	18	16
Non Telecom Utilities	20	21	19.6	22	12	20	19	16	17	12.5	18	16
Telecoms	20	21	19.6	22	15	20	19	16	17	21	18	16
Motor Cars	20	21	19.6	22	15	20	19	16	17	21	18	16
Public Transport	10	6	5.5	8	3	20	6	16	5	0	8	7
Motor Fuel	20	21	19.6	22	15	20	19	16	17	21	18	16
Entertainment	20	21	19.6	8	15	10	6	16	17	21	18	16
Newspapers and Magazines	20	6	19.6	0	3	4	19	7	17	12.5	4	16
Restaurants and Cafes	20	21	19.6	22	15	10	19	16	12	21	8	7
Hotel Accommodation	20	6	5.5	8	3	10	6	16	5	12.5	8	16

Source: PwC VAT Group (Shading indicates VAT rate higher than in Ireland)

Ireland has the lowest VAT rates in the eurozone for unprocessed foodstuffs, including dairy products for which Ireland ranks among the most expensive countries in the eurozone, and non telecom utilities. The only category where Ireland has the highest rate of VAT is “entertainment”, although it should be noted that certain categories of entertainment are VAT exempt, while others qualify for the reduced rate. Excepting Finland, Ireland has the highest rates of VAT for alcoholic beverages and cigarettes, non

⁸ It is important to note that VAT systems are very complex and multiple rates often exist for one product/ service. Moreover, interpretations of what constitutes a particular product/ service for VAT purposes differs considerable across national boundaries. Therefore, this table is intended to be indicative only – with the highest rate of VAT applicable assumed where there are multiple rates. A more complete table is attached as Annex 2 to this report.

⁹ The VAT rate for clothing and footwear refers to adults only – the effective VAT rate is lower in view of the fact that children’s clothes and footwear are VAT exempt.

alcoholic beverages and processed foods, telecoms, motor cars, motor fuels, and restaurants and cafes. It is important to note here that VAT is payable on the cost price of the item plus Excise Duty. Thus, in the case of alcohol, cigarettes, motor fuel and cars, high rates of VAT are compounded by relatively high rates of excise.

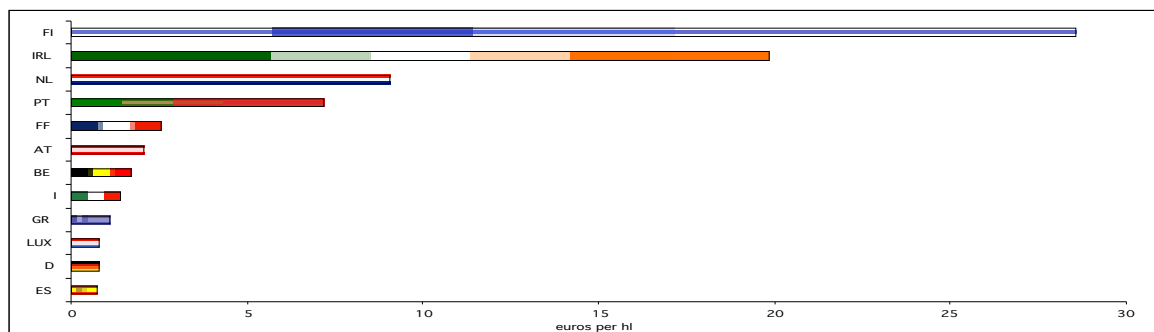
Excise Duty is charged on goods that are considered to have some external negativity and are consumed in large volumes. These are:

- tobacco;
- alcohol;
- oils.

The precise structure and nature of products liable for excise is decreed by the European Commission, but countries have discretion on rates. In addition, derogations from certain excise duties may be sought – in the case of Ireland, for example, such a derogation means that public transport providers qualify for excise rebates.

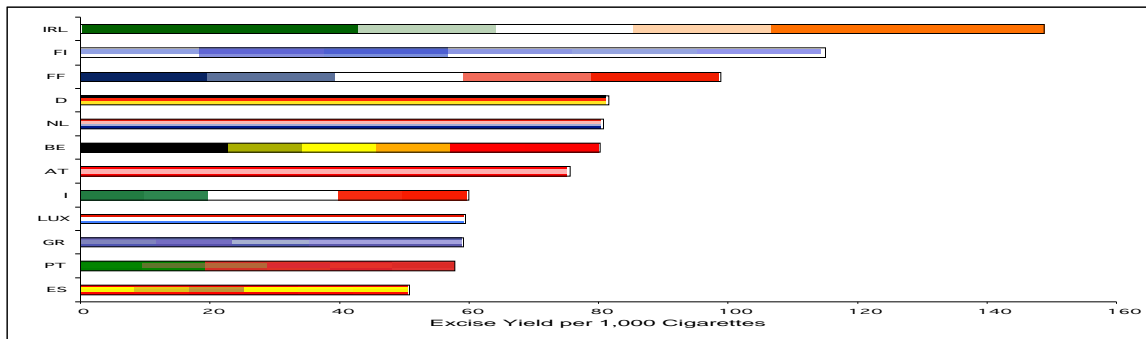
Figures 4.3 to 4.5 show levels of excise duty on alcohol, tobacco and petrol for eurozone members in 2002.

Figure 4.3 Excise Duty on Alcoholic Beverages (euro per hectolitre), Eurozone Members, 2002



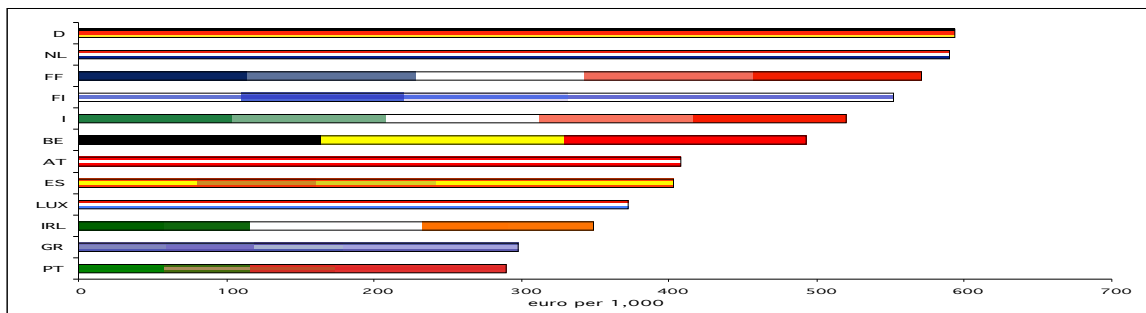
Source: European Commission

Figure 4.4 Excise Duty on 1,000 Cigarettes (€ Yield per 1,000), Eurozone Members, 2001



Source: European Commission

Figure 4.5 Excise Duty on Unleaded Petrol (€ per 1,000 litres), Eurozone Members, 2002



Source: European Commission

Irish rates of excise on alcohol and cigarettes are significantly ahead of the main group of eurozone members – the only exception being Finland in the case of alcohol. Irish rates of excise on alcohol are at least twice those of ten eurozone members, while excise rates on cigarettes are twice those of six other eurozone members. By contrast, Ireland is close to the bottom of the league table in terms of excise on motor fuel. It is worth noting that VAT is payable at the point of consumption (alcohol being the exception), while excise is payable at the point of production/ importation.

Vehicle Registration Tax is a form of excise duty that is chargeable on the registration of a motor vehicle in Ireland. Rates vary depending on the nature and size of the vehicle, but in the case of cars they vary from 22.5% of the Open Market Selling Price in the case of small cars (0 – 1400 cc) to 30% of Open Market Selling Price in the case of larger vehicles (> or = 2001 cc). The impact of VRT on the relative prices of motor cars in Ireland is shown in Table 4.2 which shows pre and post tax prices of a selection of four new cars in eurozone members – shading indicates a price/ cost that is lower than in the case of Ireland.

Table 4.2 Vehicle Registration Tax and New Car Prices, Eurozone Members, 2001

€ Price Exc. Taxes	IRL	A	B	D	E	F	FIN	GR	I	L	NL	P
Renault Megane	12,064	13,349	13,600	14,298	12,595	13,963	11,771	11,631	13,670	13,600	12,078	12,902
VW Golf	10,183	11,493	11,323	12,026	11,569	11,254	8,940	9,737	11,855	11,503	10,736	11,310
Peugeot 206	8,499	9,029	8,674	9,603	8,910	9,063	7,995	7,627	8,769	8,674	8,629	8,388
Audi A4	21,302	22,729	20,996	22,495	22,223	22,157	20,099	20,389	22,812	21,171	22,067	21,297
€ Price Incl. Taxes												
Renault Megane	18,152	17,300	16,456	16,586	15,742	16,700	20,953	15,868	17,081	15,640	17,975	21,025
VW Golf	15,322	14,757	13,700	13,950	14,230	13,460	16,905	12,718	14,227	13,228	16,028	16,971
Peugeot 206	12,789	11,484	10,495	11,140	10,960	10,839	14,665	9,825	10,522	9,975	12,555	11,719
Audi A4	32,984	29,184	25,406	26,073	27,334	26,882	39,486	32,215	27,974	24,346	34,345	33,443
€ Taxation												
Renault Megane	6,088	3,951	2,856	2,288	3,147	2,737	9,182	4,237	3,411	2,040	5,897	8,123
VW Golf	5,139	3,264	2,377	1,924	2,661	2,206	7,965	2,981	2,372	1,725	5,292	5,661
Peugeot 206	4,290	2,455	1,821	1,537	2,050	1,776	6,670	2,198	1,753	1,301	3,926	3,331
Audi A4	11,682	6,455	4,410	3,578	5,111	4,725	19,387	11,826	5,162	3,175	12,278	12,146
Index of Tax												
Renault Megane	100	65	47	38	52	45	151	70	56	34	97	133
VW Golf	100	64	46	37	52	43	155	58	46	34	103	110
Peugeot 206	100	57	42	36	48	41	155	51	41	30	92	78
Audi A4	100	55	38	31	44	40	166	101	44	27	105	104

Source: European Commission 2001 (Shading indicates countries cheaper than Ireland)

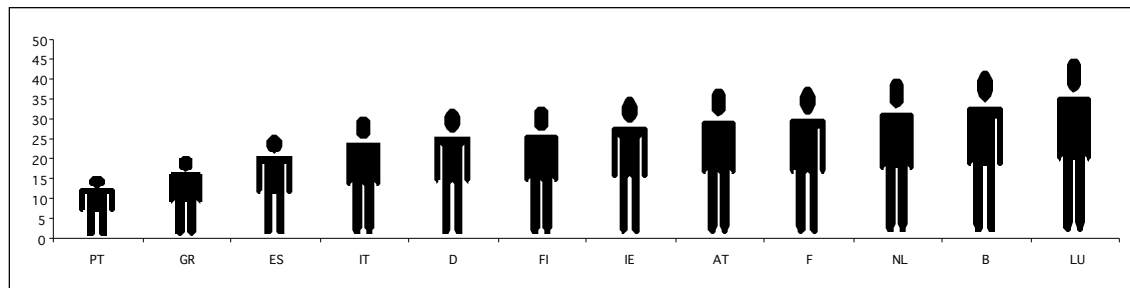
Ireland is generally the third or fourth most expensive country in which to buy a motor vehicle – more expensive countries being Finland (all cars reviewed), Netherlands (2/ 4 cars reviewed) and Portugal (3/4 cars reviewed). By contrast, the pre tax price of cars is cheaper in Ireland than in all but two other eurozone countries, namely Finland and Greece. This is a good example of price discrimination in action – car manufacturers clearly pitching their pre tax prices to a level that will deliver an “affordable” retail selling price in the country in question, having regard to taxation levels and incomes. Total tax paid on the purchase of a new car in Ireland is typically twice that paid in eight of the other eurozone members. For example in the case of a Renault Megane, the Irish consumer pays tax of €6,088 relative to €2,040 in Luxembourg. Some of this differential is, however, absorbed by the manufacturer.

4.3 Wage Rates/ Productivity of Labour

Wage rates and, more particularly, relative labour productivity (i.e. output/ cost) are clearly crucial to the overall competitiveness of eurozone economies. They, however, also have a very important bearing on the relative cost of consumer services, the major cost component in the delivery of which is labour. It is this link between labour productivity and the cost of consumer services, and to a lesser extent goods, that explains the very strong correlation that exists between the wealth of an economy and consumer price levels, i.e. wealthier economies with high labour costs typically have higher consumer prices (see Table 3.2).

Figure 4.6 shows the nominal annual compensation (€) of employees in eurozone countries in 2002, while Table 4.7 shows an index of employee compensation where Ireland is equal to 100.

Figure 4.6 Annual Compensation (€) per Employee in Eurozone Countries, 2002 (Estimated)



Source: Ameco Database

Table 4.3 Index of Employee Compensation in the Eurozone, IRL = 100 (All Years)

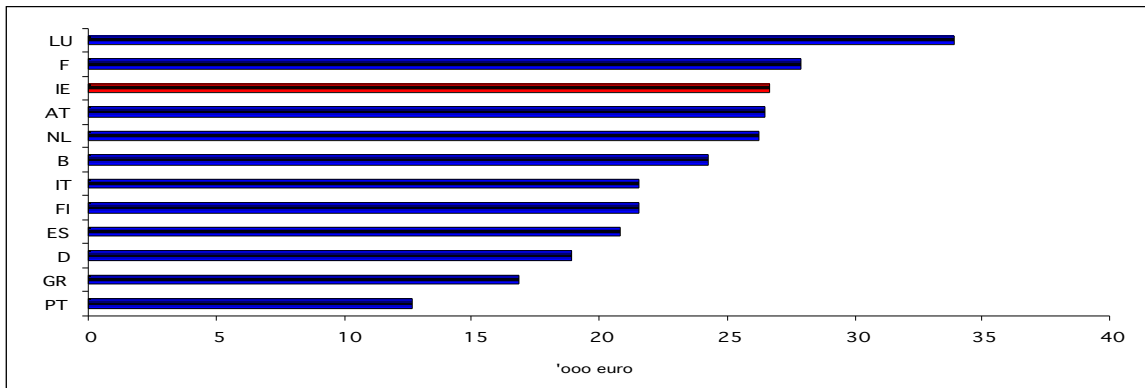
	1995	1997	2000	2002
AT	149	124	118	105
B	162	137	131	118
D	138	114	104	92
ES	94	84	80	73
F	145	128	121	107
FI	123	106	102	93
GR	62	64	61	58
IT	101	105	96	86
LU	166	141	137	127
NL	146	122	120	112
PT	49	46	46	43

Source: Ameco Database (Shading Indicates countries where employees paid more than in Ireland)

Irish employees are, on average, paid more annually than employees in six other eurozone economies, namely Portugal, Greece, Spain, Italy, Germany and Finland. Countries in which employees are better paid than in Ireland are Austria, France, Holland, Belgium and Luxembourg. In common with consumer prices, Ireland has ascended quickly through the ranks of the eurozone countries where employees are best paid – moving from position nine in 1995 (i.e. ninth best paying eurozone economy) to position eight in 2000, and position six in 2002.

Reflecting a policy of low direct/ income taxation in favour of relatively high rates of indirect taxation (see Figure 4.1), the pre-tax data presented in Table 4.3 under-states the relative welfare of Irish employees. This is evidenced in Figure 4.7, which shows that the take-home pay of Irish employees is the third highest in the eurozone, after France and Luxembourg – relatively consistent with the finding that Ireland is the 2nd most expensive country in the eurozone.

Figure 4.7 Average Take-home Pay of Eurozone Employees (€ '000), 2002 (Estimated)



Source: OECD/ Ameco Data – PwC Derived

Labour costs are, however, only one element of the equation. The relative productivity of labour in the services sector, or the volume/ value of output that is achieved for one unit of labour, is the real “labour” determinant of price differentials in services. Table 4.4 shows the productivity of labour in Ireland for services and industry relative to other eurozone economies in 1999.

Table 4.4 “Services” and “Industry” Productivity in the Eurozone (US\$ 1000 PPP per capita), 1999

	Industry	Services
Austria	58.7	55.2
Belgium	65.5	63.3
Finland	72.0	59.4
France	69.0	65.7
Germany	58.5	68.4
Greece	24.1	31.8
Ireland	86.4	50.4
Italy	48.4	57.0
Luxembourg	72.5	93.0
Netherlands	67.3	54.7
Portugal	16.6	19.5
Spain	35.8	37.6

Source: Forfás (Shading indicates productivity levels higher than in Ireland)

Table 4.4 shows that while Ireland has a very high productivity of labour in manufacturing (a fact partly attributable to the large share of manufacturing employment accounted for by multinationals), this productivity is not replicated in service industries. Productivity in the services sector in Ireland is the fourth lowest in Europe, ahead of

Portugal, Greece and Spain. Low productivity of labour has implications for the relative cost of services, particularly when it co-exists with a high demand and low price sensitivity. In addition, the tightness of the labour market in Ireland in recent years most probably means that there has been no significant improvement on the 1999 situation in the intervening years.

4.4 Regulatory Factors

The regulatory environment in Ireland, as it impacts on the intensity of competition for the supply of major categories of consumer good/ service, has a series of features that distinguish it from certain other eurozone members.

The retail sector in Ireland is subject to two important pieces of national legislation. These are the **Planning Development Act, 2000** and the **Restrictive Practices (Grocery) Order, 1987**. The Planning Development Act limits the size of all retail developments in Ireland, with Dublin retailers subject to a maximum sales area of 3,500 sq. m. and non Dublin retailers subject to a smaller 3,000 sq. m. The size of retail stores can influence significantly the price of retail goods due to efficiencies of scale that are achievable in larger sized outlets. The Grocery Order applies to all grocery items, excluding fresh fruit, vegetables, fresh and frozen meat and fish, alcoholic beverages sold not for consumption on the premises and such household necessities as are ordinarily sold in shops. Contrary to popular belief, the Grocery Order does not ban below cost selling, but below invoice price selling (i.e. selling below the price which the seller receives for the product) which may not reflect the true cost of the product. There has been substantial debate about the role the GO plays in terms of stimulating/ restricting price competition in Ireland. Advocates¹⁰ maintain that the ban has prevented small independent retail outlets being forced out of the market, while opponents (including the Competition Authority and OECD) feel that the Order is anti-competitive and against the best interest of the consumer.

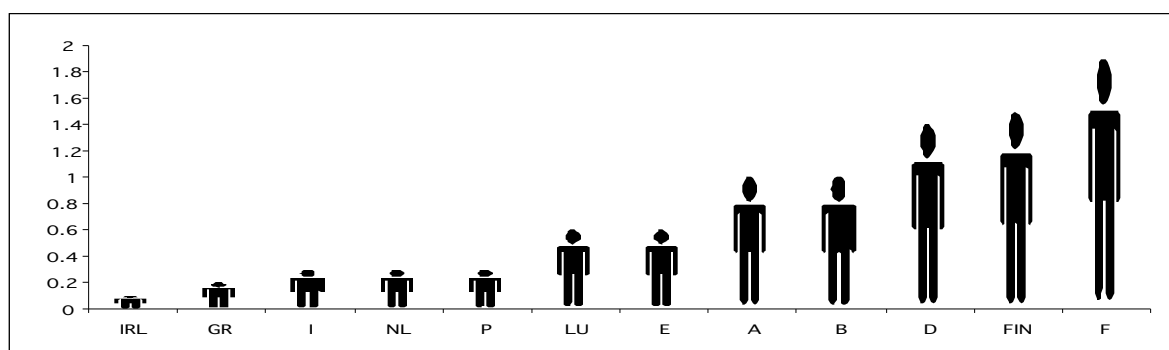
¹⁰ Consumer price inflation data prepared by IBEC in support of the retention of the Grocery Order show that products/ services not covered by the Grocery Order have experienced higher levels of inflation over the course of the past number of years than those that are covered by the Grocery Order.

In addition to these pieces of legislation, restrictive licensing laws apply in the case of public houses or licensed premises. The upshot of this is that in a time when demand for services has been growing at unprecedented rates, the number of pubs has remained static – although is clearly not true of public house capacity. Laws restricting access to the taxi and pharmacy markets have recently been repealed (as recently as January in the case of pharmacies), but legal challenges remain outstanding.

4.5 Retail Structures

The issue of retail structures in Ireland was touched upon in Section 3.3, which showed that Ireland counted among those countries in the eurozone with the least price segmented retail structures, i.e. very little price distinction between the major retailers. A related issue is the structure of retail, or more specifically the preponderance of hypermarkets in the retail structure of eurozone countries. Definitions of a hypermarket vary considerably by source, but most definitions show that the Irish retail structure is characterised by a low density of hypermarkets. This is undoubtedly attributable, in part, to the fact that Ireland has a relatively small population, one third of which is located in its major urban centre, and the balance of which is relatively geographically dispersed. However, evidence from other countries with small populations suggests that the retail planning guidelines which constrains the size of retail sales areas is acting as an effective constraint in this regard (see Luxembourg and Finland in Figure 4.9).

Figure 4.9 Hypermarket Density (> 2,500 sq. m.) per 100,000 People, Eurozone Members, 1997



Source: OECD

Retail structures are particularly relevant in any discussion of consumer prices as retail spaces above a certain size allow for the achievement of very considerable economies

of scale, the benefits of which can be passed onto the consumer. A study by AC Nielsen on behalf of the European Commission found that price differentials ranged from more than 4% to close to 8% in a selection of European countries reviewed.

4.6 National Preferences

Finally, national preferences play a major role in determining consumer price differentials. They operate at all levels of consumption, namely:

- **nationally** – in the distribution of spend across COICOPs or categories of consumer good/ service;
- **sectorally** (e.g. food) – in the choice of product/ service that make up the typical basket of goods/ services (e.g. meat vs. fish);
- **product/ service range** – for example, beef versus lamb in the choice of meat;
- **product/service choice** – including brands and product size.

National preferences are believed to account for a significant amount of consumer price differentials across the eurozone, but the precise amount may not be quantifiable. Their importance at national level is evidenced in the fact that Irish consumers, for example, are unduly affected by the imposition of excise duty on low price elasticity goods, as a result of their relatively high expenditures on alcohol (at home and in catered settings) and tobacco. No method of price comparison can overcome this difficulty, the national representative approach (e.g. camembert vs. cheddar) being subject to criticism that it is comparing apples with oranges, and the non-representative approach being subject to criticism that it seeks to compare the costs structures of identical products that have entirely different distribution structures/ perceived worths across eurozone country (e.g. camembert in France and Ireland).

This latter criticism is complicated by producer price discrimination across markets, where agency relationships allow firms to segregate markets. This clearly happens in some markets (e.g. cars). In the case of other identically branded products, price comparisons are less straightforward. For example, Heineken beer is perceived as a premium lager among Irish consumers and is marketed accordingly. By contrast, in its

country of origin, the beer has close to commodity status. It would, thus, be erroneous to conclude that the beer manufacturer was price discriminating in the Irish market, when in fact the marketing costs associated with maintaining a quality image are, most probably, considerably greater than those incurred on the “commodity” markets.

Chapter 5 Consumer Prices in the Changeover Period

5.1 Introduction

This chapter examines developments in relative consumer prices in Ireland in the changeover period, defined as the period between September 2001 and March 2002. It is based almost entirely on a detailed monthly breakdown of consumer inflation in Ireland in the period March 1997 to March 2002, rebased to reflect a new base month, i.e. December 2001. All inflation data was provided by the CSO, using price indices collected for the purposes of the monthly computation of the national Consumer Price Index (CPI). A limitation inherent to the data source is the fact that it was not possible to rebase historical inflation data to reflect new expenditure weightings introduced in December 2001. In view of the potential for some small margin of error as a result of this, inflation data presented in the remainder of this chapter should be read as indicative/ estimated only. National CPI data is supplemented with HICP (Harmonised Index of Consumer Prices) data for Ireland and all eurozone countries for a eurozone comparison of price developments in the period under review.

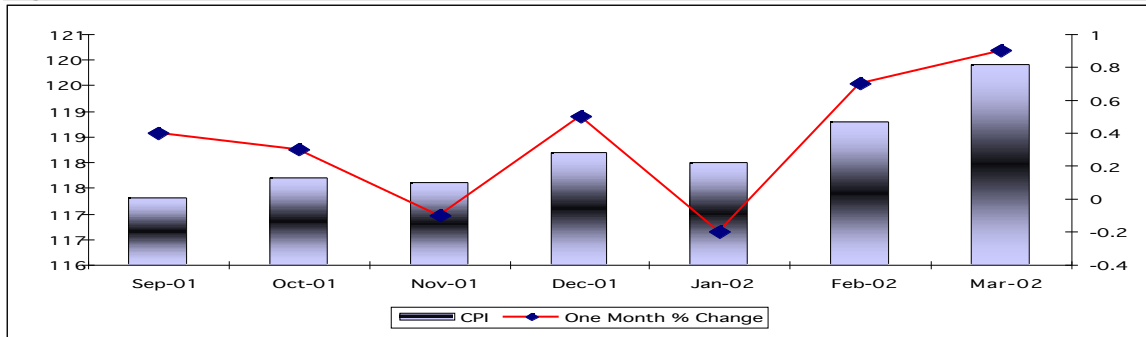
The remainder of this chapter comprises four sections. The next section describes consumer price inflation in the changeover period, while Section 5.3 examines these changes in a national historical perspective. Section 5.4 compares changes in consumer prices in Ireland between September 2001 and March 2002 with those in other eurozone countries, while Section 5.5 presents summary chapter findings.

5.2 Consumer Price Index September 2001 to March 2002

5.2.1 CPI at National Level

Figure 5.1 shows developments in the consumer price index and % monthly change in the index for the period September 2001 and March 2002.

Figure 5.1 National Consumer Price Index, September 2001 to March 2002

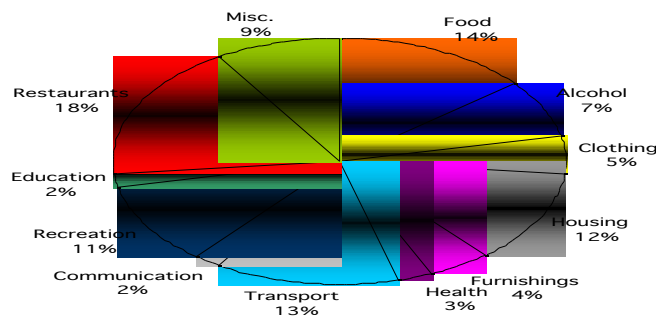


Source: Central Statistics Office

During the changeover period, the CPI increased from 117.3 to 119.9 – a percentage increase of 2.2%. This overall figure masks a range of monthly developments, namely a drop of 0.1% in the index between October and November, an increase of 0.5% between November and December, a decrease in January (-0.2%) and increases in February (+0.7) and March (+0.9).

Before examining the categories of good/ service that contributed most to inflation in this period, it is worth noting the weightings that apply to each – shown in Figure 5.2.

Figure 5.2 CPI Weightings of Categories of Consumer Good/ Services



Source: Central Statistics Office

The largest single category of expenditure is “restaurants and hotels”¹¹, which incorporates restaurants, cafes, public houses (which combined make up 84% of this category), canteens (4%) and accommodation services (13%). The second largest category is food (14%), followed by transport (13%), which incorporates private and public transport modes. Housing is the next most important category, with its 12% share incorporating rents (21%) and mortgage interest (38%), among others. “Recreation and

¹¹ hereafter referred to as “pubs and restaurants”.

Culture” makes up 11% of total national spend, and includes recreational equipment (10%), cultural services (26% - e.g. cinema, theatre), and sport attendances and participation. The balance of consumer expenditure is shared between miscellaneous goods and services (9%, including insurance), off-licence alcohol and tobacco (7%), clothing (5%), furnishings (4%), health (3%), education (2%) and communications (2%).

Table 5.1 shows the estimated % change in the CPI for these consumer good/ service categories during the euro changeover, with shading indicating an inflation level in excess of the national average for the period.

Table 5.1 % Change in CPI September 01 to March 02 by Category of Good/ Service			
	September 2001 to March 2002		
	% Change	Contribution to National CPI % Change	% Contribution to National CPI % Change
Food and Non Alcoholic Beverages	0.6	0.1	4%
Off-Licence Alcohol and Tobacco	4.2	0.3	14%
Clothing and Footwear	-2.3	-0.1	-5%
Housing, Water, Electricity, Gas and Other Fuels	-2.6	-0.3	-14%
Furnishings, Household Equipment and Maintenance	0.7	0.0	1%
Health	5.5	0.1	6%
Transport	1.6	0.2	10%
Communications	1.5	0.0	1%
Recreation and Culture	3.7	0.4	18%
Education	8.9	0.1	6%
Pubs and Restaurants	4.4	0.8	35%
Miscellaneous Goods and Services	6.0	0.5	24%
All Items	2.2	2.2	100%

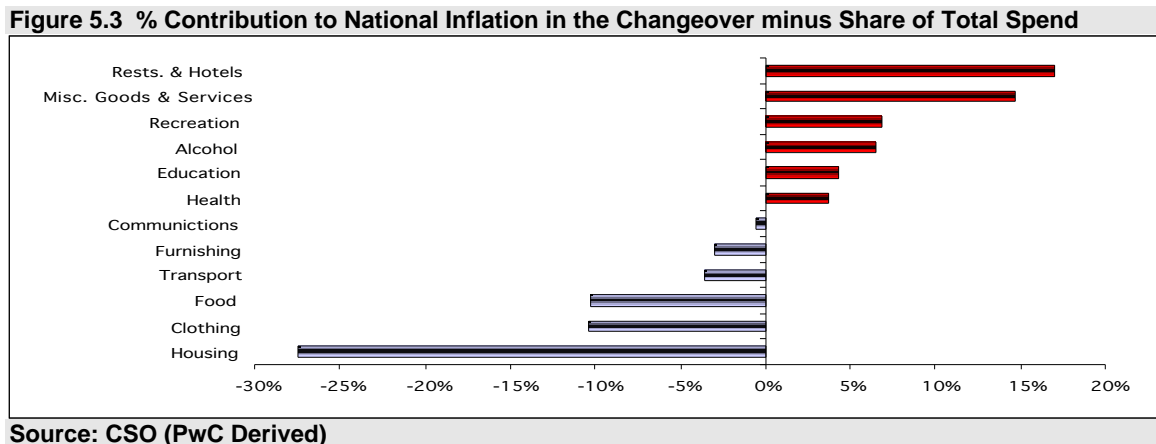
Source: CSO (PwC Derived) (Shading indicates Price Increase > National Rate of Inflation)

Six of the twelve categories of consumer good/ service listed in Table 5.1 experienced inflation in excess of the national average during the changeover period. These were education (8.9%), miscellaneous goods and services (6.0%), health (5.5%), pubs and restaurants (4.4%), off-licence alcohol and tobacco (4.2%), and recreation and culture (3.7%). The prices of clothing and footwear, and housing declined in the same period.

The most significant drivers of inflation developments in the changeover period were pubs and restaurants (35% contribution), miscellaneous goods and services (24%), off-licence alcohol and tobacco (14%), and recreation and culture (18%). The predominance of the service industries is notable – the only non service industry being one where

prices are heavily influenced by developments in indirect taxation, i.e. off-licence alcohol and tobacco.

Figure 5.3 shows the relationship between the share of national spend accounted for by the different categories of consumer good/ service and their relative contribution to inflation in the changeover period, i.e. the extent to which certain categories of consumer goods and service were “punching above their weight” in inflation terms.



Pubs and restaurants contributed 17% more than their share of national expenditure to inflation in the changeover period – the largest positive differential recorded. The respective figure for miscellaneous goods and service is 15%, followed by recreation and culture (7%), alcoholic beverages and tobacco (7%), education (5%) and health (4%). The largest relative decline was in housing (-27%), followed by clothing (-10%) and food (-10%). A more detailed examination of price increases during the changeover for those categories of consumer expenditure where inflation during the changeover exceeded the national norm is presented as Annex 3 to this report.

5.3 The Changeover Period in National Historical Perspective

5.3.1 Introduction

The normality of price developments in the changeover period is best assessed with reference to price developments in preceding years/ periods, having regard to developments in the major drivers of consumer price inflation nationally. This section applies two standard measures of the historical normality of price developments in the changeover to the major categories of consumer expenditure in Ireland, namely the rate of price increase during the changeover, and average prices in the period January to March relative to average prices in the full year April to March. An examination of the most recent data available for the major drivers of services inflation in Ireland (i.e. rates of increase in demand and rates of increase in wage rates to the end of the third quarter of 2001) suggest that price increases (at aggregate level) during the changeover should have been somewhat more modest than in the previous year. Consistent with a focus on overall price developments, limited regard is had to product/ service specific (e.g. hairdressing/ increases in cost of inputs) drivers of inflation in this study.

5.3.2 National CPI in Historical Perspective

Consumer price inflation in Ireland has accelerated considerably over the course of the past two years. Full year inflation in 1999 was 1.7%, and this rose to 5.5% in 2000 and fell back slightly to 4.9% in 2001. Table 5.2 shows annual inflation by major category of consumer good/ service for the years 1998 to 2001 inclusive – with shading indicating a rate of price increase in excess of the national inflation rate.

Table 5.2 Annual CPI by COICOP Heading, 1998 to 2001

	1998	1999	2000	2001
Food and Non Alcoholic Beverages	4.1	3.1	3.1	6.5
Alcoholic Beverages and Tobacco	3.9	4.0	11.5	2.5
Clothing and Footwear	-5.3	-6.3	-4.9	-2.8
Housing, Water, Electricity, Gas and Other Fuels	0.8	-6.7	9.6	10.6
Furnishings, Household Equipment and Routine Household Maintenance	3.5	2.4	4.5	3.5
Health	5.4	5.7	7.1	7.5
Transport	0.9	2.3	8.0	-1.6
Communications	-6.0	-7.4	-3.0	-8.3
Recreation and Culture	2.1	2.9	3.7	4.9
Education	7.6	10.3	10.6	7.2
Pubs and restaurants	4.1	4.1	5.5	6.0
Miscellaneous Goods and Services	4.9	5.6	7.6	9.3
Total	2.3	1.7	5.5	4.9

Source: CSO (PwC Derived) (Shading indicates Price Increase > National Inflation Rate)

Those categories of consumer good/ service that have been consistently above the national rate of inflation are characterised by a predominance of services. These are miscellaneous goods and services, education and health. Pubs and restaurants were also above, or at, trend for the four years reviewed. A predominance of services reflects the importance of domestic factors in driving inflation in recent years, with labour costs rising significantly in response to economic growth that was above trend, i.e. a positive output gap. Table 5.3 develops the foregoing, by showing rates of price increase by category of good/ service in the changeover period.

Table 5.3 % Change in CPI September to March, Selected Years

	1997/1998	1998/1999	1999/2000	2000/2001	2001/2002
Food and Non Alcoholic Beverages	1.3%	1.5%	0.9%	3.1%	0.6%
Alcoholic Beverages and Tobacco	2.9%	1.1%	10.1%	1.1%	4.2%
Clothing and Footwear	-2.1%	-3.9%	-2.6%	-1.2%	-2.3%
Housing, Water, Electricity, Gas and Other Fuels	1.0%	-7.3%	3.7%	6.1%	-2.6%
Furnishings, Household Equipment & Maintenance	1.6%	0.1%	1.2%	1.9%	0.7%
Health	3.6%	3.3%	3.3%	2.4%	5.5%
Transport	0.0%	-0.9%	3.9%	-3.7%	1.6%
Communications	-3.2%	-4.3%	1.5%	-10.4%	1.5%
Recreation and Culture	0.7%	1.5%	1.8%	2.0%	3.7%
Education	6.5%	9.0%	10.5%	6.6%	8.9%
Pubs and restaurants	2.6%	0.9%	2.5%	2.6%	4.4%
Miscellaneous Goods and Services	1.9%	1.0%	1.9%	5.2%	6.0%
Total	1.3%	-0.3%	2.8%	2.0%	2.2%

Source: CSO (PwC Derived) (Shading indicates unusual Price Increases)

The primary point to note from Table 5.3 is that four of the 12 categories of good/ service exhibited price increases in the September 2001 to March 2002 period that were unprecedented over the four preceding years. These are health, recreation and culture, pubs and restaurants, and miscellaneous goods and services. Again, a predominance of service dominated categories is noteworthy. In order to place price developments during the changeover in the context of wider inflationary developments in the year in question, Table 5.4 shows the average cost of goods/ services in the period January to March relative to the average price for the full year April to March¹².

Table 5.4 Average Prices in January to March relative to Average Prices in April to March

	1997/1998	1998/1999	1999/2000	2000/2001	2001/2002
Food and Non Alcoholic Beverages	0.8%	0.9%	0.4%	1.9%	0.8%
Alcoholic Beverages and Tobacco	1.8%	0.9%	6.7%	0.5%	2.0%
Clothing and Footwear	-4.5%	-5.3%	-4.7%	-3.6%	-3.8%
Housing, Water, Electricity, Gas and Other Fuels	0.4%	-4.6%	1.5%	5.1%	-1.1%
Furnishings, Household Equipment and Routine Household Maintenance	1.0%	0.1%	1.3%	0.7%	0.3%
Health	2.3%	2.1%	2.4%	2.2%	4.6%
Transport	0.2%	-0.6%	2.8%	-2.9%	0.0%
Communications	-2.6%	-3.4%	0.0%	-6.5%	0.9%
Recreation and Culture	0.7%	1.1%	1.3%	1.5%	3.0%
Education	3.5%	4.7%	5.6%	3.4%	5.1%
Pubs and restaurants	1.5%	1.0%	1.7%	1.5%	2.5%
Miscellaneous Goods and Services	1.9%	1.6%	2.8%	3.4%	3.6%
Total	0.6%	-0.2%	1.7%	1.2%	1.3%

Source: CSO (PwC Derived) (Shading indicates unusual price increases)

Expenditure categories within which the price of goods or services in January to March 2002 relative to the full year April 2001 to March 2002 was in excess of that experienced in the four preceding years were health, communications, recreation and culture, pubs and restaurants, and miscellaneous goods and services. In the case of miscellaneous goods and services, the difference between it and the 2000/2001 experience was very small. The remainder of this section examines historical price differentials for four of these sectors – communications being excluded on the basis that inflation in this category fell below the national rate in the changeover period and that it accounts for a relatively small share of total consumer spend.

5.3.3 Sectoral CPI in Historical Perspective/ Health

Table 5.5 shows estimated % price changes in the changeover period for a selection of goods/ services falling into the health category, while Table 5.6 shows the percentage difference between prices in the January to March period and those in the full year April to March. Shading indicates a price differential that seems somewhat unusual in the context of price increases between 1997 and 2001.

Table 5.5 % Change in CPI September to March, Selected Years

Inflation Sept. to March	1997/1998	1998/1999	1999/2000	2000/2001	2001/2002
Medical Products	2.9%	1.2%	1.8%	1.3%	2.5%
<i>Pharmaceutical Products</i>	2.1%	0.8%	1.1%	1.2%	1.8%
<i>Other Medical Products</i>	3.8%	1.5%	2.6%	1.4%	3.0%
Outpatient Services	3.1%	4.7%	4.4%	3.7%	6.3%
<i>Optician Fees</i>	3.5%	1.3%	2.1%	2.6%	7.1%
<i>Doctor Fees</i>	3.4%	5.7%	5.9%	4.4%	7.6%
<i>Dentist fees</i>	2.7%	2.8%	1.6%	2.3%	4.7%
Hospital Service	8.5%	5.5%	5.5%	2.4%	7.3%
Total	3.6%	3.3%	3.3%	2.4%	5.5%

Source: CSO (Shading indicates Unusual Price Increases)

The overall rate of price increases in health in September 2001/ March 2002 was higher than in the same period in previous years. This differential between the changeover period and preceding years was driven entirely by outpatient services, and relatively high rates of increases in opticians', doctors' and dentists' fees. The rate of increase in the price of hospital services was also high relative to those years immediately preceding, but was exceeded in the period September 1997 to March 1998.

¹² It is important to note that a higher rate of VAT (+1%) was introduced in March 2002 and will have had some minor impact on average prices, i.e. 121/120 or 0.83% in 2002.

Table 5.6 Average Prices in January to March relative to Average Price in April to March

Price Differential	1997/1998	1998/1999	1999/2000	2000/2001	2001/2002
Medical Products	1.6%	0.9%	1.6%	1.4%	2.0%
<i>Pharmaceutical Products</i>	1.1%	0.1%	0.7%	1.3%	1.8%
<i>Other Medical Products</i>	2.1%	1.7%	2.5%	1.6%	2.2%
Outpatient Services	2.2%	2.9%	2.8%	3.0%	5.3%
<i>Optician Fees</i>	2.6%	1.2%	2.5%	2.2%	3.9%
<i>Doctor Fees</i>	2.3%	3.3%	3.5%	3.3%	6.4%
<i>Dentist fees</i>	2.2%	2.1%	1.5%	2.5%	3.7%
Hospital Service	6.3%	3.8%	3.8%	1.9%	5.7%
Total	2.3%	2.1%	2.4%	2.2%	4.6%

Source: CSO (PwC Derived) (Shading Indicates Unusual Price Increases)

Table 5.6 shows that the relationship between prices in the early months of 2002 relative to those for the full year April to March were high in a short-term historical context in the case of pharmaceutical products, opticians' fees, doctors' fees and dentists' fees. This was also the case for the health category as a whole (4.6% vs. next highest of 2.4%).

5.3.4 Sectoral CPI in Historical Perspective/ Recreation and Culture

Similarly in the case of recreation and culture, the rate of increase in the September to March period and the ratio of prices in early 2002 with those for the full preceding year (i.e. April 2001 to March 2002) were somewhat unusual in the context of price increases in the same period for the four preceding years – see Tables 5.7 and 5.8.

Table 5.7 % Change in CPI September to March, Selected Years

	1997/1998	1998/1999	1999/2000	2000/2001	2001/2002
Recreational and Cultural Services	1.4%	3.9%	2.4%	3.1%	7.3%
<i>Cultural Services</i>	0.1%	2.9%	1.5%	1.1%	8.4%
- <i>Cinema</i>	2.7%	2.5%	2.3%	1.6%	3.9%
- <i>Nightclub</i>	0.2%	8.5%	1.8%	0.5%	6.6%
- <i>Cultural Admittances</i>	-2.0%	0.3%	1.9%	3.2%	7.0%
<i>Recreational and Sporting Services</i>	4.2%	5.5%	4.6%	6.8%	5.1%
Newspapers, Books and Stationery	1.6%	0.7%	4.2%	4.1%	3.2%
<i>Newspapers and Periodicals</i>	1.7%	0.8%	6.0%	5.4%	5.0%
Package Holidays	0.4%	1%	0.6%	0.5%	1.9%
Total	0.7%	1.5%	1.8%	2.0%	3.7%

Source: CSO (PwC Derived) (Shading indicates unusual Price Increases)

Table 5.8 Average Prices in January to March as a % of Average Price in April to March

	1997/1998	1998/1999	1999/2000	2000/2001	2001/2002
Recreational and Cultural Services	1.1%	2.4%	1.7%	1.8%	5.6%
<i>Cultural Services</i>	0.6%	2.1%	1.1%	0.9%	6.4%
- <i>Cinema</i>	2.1%	1.8%	1.8%	1.6%	3.2%
- <i>Nightclub</i>	0.3%	6.0%	1.0%	0.7%	4.6%
- <i>Cultural Admittances</i>	1.0%	0.0%	1.4%	2.3%	5.1%
<i>Recreational and Sporting Services</i>	2.1%	2.7%	2.8%	3.4%	4.1%
Newspapers, Books and Stationery	1.1%	0.8%	2.4%	3.2%	2.4%
<i>Newspapers and Periodicals</i>	1.2%	0.8%	3.2%	4.0%	3.7%
Package Holidays	0.7%	1.4%	1%	0.7%	2.5%
Total	0.7%	1.1%	1.3%	1.5%	3.0%

Source: CSO (PwC Derived) (Shading indicates Unusual Price Increases)

Differentials were particularly pronounced in the case of cultural services, including cinemas and cultural admittances, and recreational and sporting services. This was equally true for package holidays, where one might have expected some decline in view of the events of September 11th. Developments in the prices of newspapers, books and stationery was broadly in line with historical trends, and a top-line analysis of the other “goods” components of this category showed no major differentials.

5.3.5 Sectoral CPI in Historical Perspective/ Pubs and Restaurants

Table 5.9 shows the rate of increase in prices in the changeover period for a selection of goods/ services falling into the pubs and restaurants category, while Table 5.10 shows the % difference between prices in January to March and those for the full year April to March.

Table 5.9 % Change in CPI September to March, Selected Years

	1997/1998	1998/1999	1999/2000	2000/2001	2001/2002
Restaurants, Cafes and Licensed Premises	2.7%	0.9%	2.7%	2.6%	4.6%
<i>Beer - Licensed Premises</i>	2.7%	0.6%	2.4%	2.3%	5.1%
<i>Spirits - Licensed Premises</i>	3.4%	0.5%	2.3%	3.0%	6.0%
<i>Wine- Licensed Premises</i>	3.1%	0.8%	2.3%	2.4%	6.2%
<i>Soft Drinks and Water - Licensed Premises</i>	4.2%	1.0%	3.0%	3.7%	6.7%
<i>Restaurants, Cafes and Fast Food</i>	2.1%	2.0%	3.6%	2.8%	3.5%
Catering Services	2.6	0.9	2.6	2.8	4.4
Accommodation Services	-2.3	-2.4	-2.8	-1.7	-0.3
Total Pubs and Restaurants	2.6%	0.9%	2.5%	2.6%	4.4%

Source: CSO (PwC Derived) (Shading indicates Unusual Price Increases)

Table 5.10 Average Prices in January to March as a % of Average Price in April to March

	1997/1998	1998/1999	1999/2000	2000/2001	2001/2002
Restaurants, Cafes and Licensed Premises	1.6%	1.0%	1.8%	1.5%	2.6%
<i>Beer - Licensed Premises</i>	1.5%	0.8%	1.4%	1.1%	2.4%
<i>Spirits - Licensed Premises</i>	1.8%	0.8%	1.4%	1.6%	3.0%
<i>Wine- Licensed Premises</i>	1.8%	1.0%	1.5%	1.3%	3.2%
<i>Soft Drinks and Water - Licensed Premises</i>	2.4%	1.3%	1.8%	1.8%	3.4%
<i>Restaurants, Cafes and Fast Food</i>	1.5%	1.6%	2.7%	2.1%	2.5%
Catering Services	1.5	1.0	1.7	1.5	2.5
Accommodation Services	-1.6	-0.8	-1.4	-0.1	0.1
Total Pubs and Restaurants	1.5%	1.0%	1.7%	1.5%	2.5%

Source: CSO (PwC Derived) (Shading indicates Unusual Price Increases)

Price developments in the pubs and restaurant category in the euro changeover period were strikingly different from those of previous years, particularly in the case of public houses and catering services. These pricing anomalies do not extend to “restaurants, cafes and fast food”, although it is important to bear in mind that this is a very broad

category. Price developments in accommodation services were also unusual in a short-term historical perspective, but absolute prices still fell during the changeover.

5.3.6 Sectoral CPI in Historical Perspective/ Miscellaneous Goods and Services

The normality of price developments in the “miscellaneous goods and services” category between September 2001 and March 2002, in historical context, is shown in Tables 5.11 and 5.12.

Table 5.11 % Change in CPI September to March, Selected Years

	1997/1998	1998/1999	1999/2000	2000/2001	2001/2002
Personal Care	2.7%	1.6%	1.4%	2.5%	2.4%
<i>Hairdressing and Personal Grooming</i>	2.6%	2.4%	1.7%	2.3%	4.2%
- <i>Hairdressing</i>	2.6%	2.4%	1.7%	2.3%	4.2%
- <i>Health & Beauty Treatments</i>	n.a.	n.a.	n.a.	n.a.	4.3%
- <i>Other Personal Grooming</i>	0.9%	3.0%	2.5%	2.4%	0.6%
Other Personal Goods	0.5%	-0.5%	1.4%	1.0%	-2.4%
Social Protection	0.0%	0.0%	3.4%	4.3%	7.4%
Insurance	2.0%	0.8%	1.9%	8.3%	8.4%
Financial Services	0.0%	-0.1%	2.2%	0.1%	-0.1%
Other Services	0.5%	2.1%	2.0%	0.8%	7.8%
Total	1.9%	1.0%	1.9%	5.2%	6.0%

Source: CSO (PwC Derived) (Shading indicates Unusual Price Increases)

Table 5.12 Average Prices in January to March relative to Average Price in April to March

	1997/1998	1998/1999	1999/2000	2000/2001	2001/2002
Personal Care	1.7%	1.4%	1.5%	1.8%	2.2%
<i>Hairdressing and Personal Grooming</i>	2.4%	2.3%	2.7%	1.9%	3.6%
- <i>Hairdressing</i>	2.5%	2.3%	2.7%	1.9%	3.7%
- <i>Health & Beauty Treatments</i>	n.a.	n.a.	n.a.	n.a.	3.3%
- <i>Other Personal Grooming</i>	0.7%	1.7%	2.1%	1.8%	1.0%
Other Personal Goods	-0.9%	-0.3%	0.1%	0.7%	-1.8%
Social Protection	3.6%	3.0%	10.1%	3.6%	4.1%
Insurance	2.4%	1.8%	3.2%	5.2%	4.9%
Financial Services	0.0%	-0.1%	1.0%	-0.1%	0.3%
Other Services	0.4%	1.2%	1.0%	0.5%	2.4%
Total	1.9%	1.6%	2.8%	3.4%	3.6%

Source: CSO (PwC Derived) (Shading indicates Unusual Price Increases)

At overall level, the rate of inflation in the September to March period for this category of expenditure was without precedence in the 1997 to 2001 period (i.e. 6%) , as was the ratio of average prices in January to March to the full year April 2001 to March 2002 (i.e. 3.6%). Sub-categories that experienced relatively high rates of price increase in this period were hairdressing (4.2%), social protection (7.4%) and other services (7.8%). Relatively high ratios between average prices in the post euro period and those pertaining in the year to end March 2002 were recorded in hairdressing (3.7%), the “personal care” category as a whole (2.2%) and “other services” (2.4%).

5.3.7 CPI in Historical Perspective/ Selected Goods and Services

The preceding sections focused on products/ services within those categories of expenditure that exhibited unusual price developments in the changeover period. To reflect the fact that unusual pricing behaviour at a more disaggregated level was not confined to products/ services within these categories, this section presents details of other products/ services where prices in the period after the changeover (i.e. January to

March)¹³ were unusual relative to those that had pertained in the full year April to March. These are shown in Table 5.13.

Table 5.13 Average Price in Jan. to March relative to Average Price in April to March/ Selected Goods/ Services

	1997/1998	1998/1999	1999/2000	2000/2001	2001/2002
Food and Non-Alcoholic Beverages					
Flour	0.1	-0.6	1.1	0.1	1.8
Cakes	1.4	0.8	1.5	1.5	1.8
Off-Licence Alcohol and Tobacco					
Wine	0.5	0.7	0.7	0.2	1.7
Housing					
Local Authority Rents	2.1	2.6	5.2	4.9	9.6
Services for the Maintenance and Repair of the Dwelling	0.3	0.6	0.8	1.2	1.7
Other Services relating to the Dwelling	3.3	4.4	2.1	7.4	7.8
Electricity	0.4	0.0	0.0	0.0	6.3
Furnishings/ Household Equipment					
Repair of Household Appliances	2.5	1.3	2.1	1.3	5.0
Transport					
Other Services in Respect of Vehicles	0.2	1.0	0.6	0.4	1.2
Other Vehicle Costs	0.9	0.3	1.1	1.4	3.0
Driving Licences	0.0	0.0	0.0	0.0	4.3
Taxi Fares	7.7	0.7	0.0	1.0	9.0
Other Purchased Transport Services	0.0	0.3	2.0	1.2	3.6
Education					
Other Education and Training	1.7	2.8	3.8	3.8	6.2

Source: CSO (PwC Derived)

With the exception of a small number of “products”, i.e. “flour”, “cakes” and “driving licences”, Table 5.13 is dominated by services in regulated and non-regulated sectors. Areas of service provision where Government had some influence on the timing and scale of the price increase were taxi fares, local authority rents and driving licences.

¹³ It should be noted that price developments were examined for three digit COICOP headings only, with a small number of exceptions. For example, instead of assessing the normality or otherwise of developments in the price of motor types, we looked at the category “spare parts and accessories” under transport.

5.4 The Changeover Period in Eurozone Perspective

There are a number of difficulties inherent to any cross country analysis of price developments during the changeover. The first of these is that different eurozone countries are currently experiencing very different levels of inflation. To the year ended February 2002, Ireland registered the highest rate of inflation in the eurozone (4.9% - HICP measure), followed by Greece (4.8%) and Holland (4.5%). At the other end of the spectrum, inflation in Austria over this period was just 1.7%. The second difficulty is that the factors that drive inflation may differ across time and geographically. In the case of Ireland, it is known that inflation in recent years has been driven primarily by a combination of a decline in the euro and the emergence of a positive output gap, and is most manifest in the services sectors. This is not the case elsewhere. With these caveats in mind, Table 5.14 shows the % change in the average price of consumer goods/ services in January and February 2002 relative to average prices in the full year ended February 2002 – with shading indicating inflation in excess of that in Ireland.

Table 5.14 Average Prices in January 02 to February 02 relative to Average Price in Feb. 01 to Feb 02

	E	LU	IRL	I	B	A	P	NL	GR	D	F	FIN	Total
Food and Non-Alcoholic Beverages	2.0%	1.8%	1.1%	1.7%	1.3%	2.2%	1.0%	2.5%	6.0%	1.2%	1.6%	2.7%	2.1%
Alcoholic Beverages and Tobacco	1.8%	2.2%	1.6%	0.5%	0.5%	0.7%	1.2%	1.2%	2.1%	1.4%	1.9%	1.1%	2.2%
Clothing and Footwear	3.3%	-1.6%	-5.7%	1.6%	-6.4%	-1.2%	-2.1%	-5.8%	0.9%	0.7%	-0.3%	-2.0%	-2.1%
Housing etc.	0.5%	-1.5%	1.9%	0.2%	-0.9%	0.1%	1.3%	2.2%	0.1%	-0.3%	0.4%	0.3%	0.4%
Furnishings etc.	0.6%	-0.5%	0.1%	0.7%	0.6%	0.7%	1.5%	1.8%	0.5%	0.7%	0.5%	0.7%	0.6%
Health	0.8%	-4.7%	4.7%	0.6%	0.4%	1.7%	1.9%	5.1%	n.a.	0.1%	-0.7%	2.1%	0.9%
Transport	-1.5%	-2.7%	-0.1%	-0.4%	-1.1%	-1.0%	0.9%	-0.2%	-1.8%	-1.0%	-0.7%	-1.9%	-0.3%
Communications	-0.4%	-1.7%	1.1%	-0.6%	-0.1%	-0.3%	0.0%	-0.7%	-1.0%	-0.2%	0.1%	1.6%	-0.3%
Recreation and Culture	0.9%	1.5%	3.5%	1.3%	2.0%	-0.3%	0.9%	2.3%	1.0%	0.2%	0.0%	0.7%	1.0%
Education	2.1%	4.6%	5.9%	1.7%	2.3%	15.3%	3.6%	2.2%	2.1%	0.9%	1.5%	1.5%	2.3%
Pubs and restaurants	1.3%	1.9%	2.3%	1.3%	0.6%	1.8%	1.1%	2.6%	3.0%	0.5%	1.4%	1.0%	1.7%
Miscellaneous	1.3%	0.9%	2.9%	1.4%	1.3%	1.5%	2.0%	2.9%	1.6%	1.3%	1.1%	1.1%	1.5%
Total	1.1%	0.0%	1.5%	0.9%	0.0%	0.6%	1.0%	1.5%	1.9%	0.3%	0.5%	0.5%	0.7%

Source: Eurostat (PwC Derived) (Shading indicates Price Increases > in Ireland)

At overall level, the ratio of consumer prices in the period immediately after the introduction of the euro to those pertaining in the full year to end February 2002 in Ireland (101.5) is higher than that for the eurozone as a whole (100.7). This was also the case in a further five eurozone countries (including the high inflation economies – Greece and the Netherlands), and was more pronounced in Greece (101.9) than in

Ireland. The Irish experience is characterised by being the forerunner in this regard for those categories that are dominated by services, most notably “miscellaneous goods and services” and “recreation and culture”, where no other eurozone country exceeded the pre and post euro price differential recorded in Ireland. Ireland was also to fore in each of the remaining service categories, namely health (4.7%), education (5.9%), transport (-0.1%), communications (1.1%), and pubs and restaurants (2.3%).

5.5 Key Chapter Findings

The analysis presented in this chapter identified the following consumer products and services as displaying “unusual” pricing behaviour (using the “average prices in January to March/ average prices in full year to end March” measure) during the changeover:

Health

- outpatient services:
 - *dentists’ fees;*
 - *doctors’ fees;*
 - *opticians’ fees.*
- pharmaceutical products.

Recreation and Culture

- cultural services, including:
 - *cinema;*
 - *cultural admittances.*
- recreational and sporting services.
- package holidays.

Pubs and Restaurants

- “restaurants, cafes and licensed premises”, including:
 - *beer in licensed premises;*
 - *spirits in licensed premises;*
 - *wine in licensed premises;*
 - *soft drinks/ bottled water – licensed premises;*

- *lunch/ dinner in restaurants.*
- catering services.
- accommodation services.

Miscellaneous Goods and Services

- hairdressing.
- other services.

Education

- private education and training.

Transport

- “other services” in respect of motor vehicles, including:
 - *driving licences¹⁴;*
 - *other vehicle costs.*
- taxi fares.
- “other purchased transport services”, e.g. furniture removal.

Housing

- local authority rents¹⁵.
- services for the maintenance of dwelling, e.g. plumbing.
- other services relating to the dwelling, e.g. chimney sweeps.
- electricity¹⁶.

Food and Non-Alcoholic Beverages

- flour
- cakes

¹⁴ The price increase after the changeover was the first in four years and entirely attributable to the introduction of the driver theory test.

¹⁵ Local Authority rents are based on household income.

¹⁶ This increase was announced prior to the changeover and was the first for many years.

Off-Licence Alcohol and Tobacco

- wine

Furnishings/ Household Equipment

- repair of household appliances

Chapter 6 The Key Questions Revisited

6.1 Introduction

The foregoing chapters presented secondary research findings on the relative cost of consumer goods and services in Ireland, those factors that may explain price differentials between Ireland and other eurozone countries, and price developments in Ireland during the euro changeover. Having done so, this chapter revisits the original questions posed in the Terms of Reference, namely:

- is Ireland more or less expensive for consumer goods/ services than other eurozone countries and, if so, why?;
- was there unusual pricing behaviour in Ireland during the changeover?

These questions are addressed in the sections that follow.

6.2 Consumer Prices in Ireland in Eurozone Comparison

There were two questions in relation to the comparative price of consumer goods and services in Ireland. The first was is Ireland more expensive for consumer goods/ services than other eurozone members and the second was, if so, why? Providing answers to these questions proved difficult in view of the methodological problems underpinning all comparative price surveys, as well as the importance of the unquantifiable “national preference” category as a determinant of international consumer price differentials. Notwithstanding these difficulties, the consultants drew a number of conclusions from the analysis presented in Chapters 3 and 4.

Is Ireland an Expensive Country in Eurozone Terms?

Eurostat PPP comparative price data dating to 1999 show Ireland to be the fourth most expensive country in the eurozone, after Finland, Germany and France. High rates of inflation in recent years mean that the relative price of goods/ services in Ireland has

deteriorated (i.e. become more expensive). PricewaterhouseCoopers projections to February 2002 suggest that Ireland may now be marginally more expensive than France and Germany – consistent with more recent findings from other sources (e.g. Eurostat's City "Cost of Living" Survey, Mercer HR Consulting). However, the price differential is small and needs to be interpreted with caution in view of the methodological difficulties underpinning the computation of Eurostat PPP comparative price data.

Categories of consumer expenditure that are particularly expensive in Ireland are: alcohol and tobacco; non-food grocery items; residential rents; and "pubs and restaurants". For all of the categories of consumer expenditure that are service dominated, with the single exception of education which is dominated by public sector supply, Ireland featured among the most expensive eurozone economies in 2001/2002. By contrast, Ireland was found to be consistently the least expensive country in which to buy clothing and footwear in recent years. Particularly interesting was the relative expensiveness of unprocessed foodstuffs in Ireland (e.g. eggs), given that Ireland is a producer nation and the only eurozone economy where these are VAT exempt, and the greatly enhanced price competitiveness of communication services in Ireland over the course of the past six years – undoubtedly pointing to the benefits of increased competition within this sector. Further findings worthy of note here are that Ireland is the most expensive country in the eurozone in which to buy a basket of groceries (food and non-food items), and that Ireland's retail structure counts among the most price homogenous (i.e. virtual absence of discounters) in the eurozone.

Ireland's status as one of the eurozone's most expensive countries is one which is relatively recently acquired. In 1995, Eurostat ranked Ireland the 8th most expensive country of the EU12. By 1998, this had translated into a number six ranking and has remained in the top three/ four since 2000. Ireland's ascent through the ranks of the eurozone's most expensive, at a time when consumer price inflation approximated that for the eurozone as a whole, partially reflects the fact that eurozone-wide inflation in the period 1996 to 1999 (3.8%) was fuelled by price developments in the poorer/ low-cost eurozone members, most notably Greece (12.8%), Spain (6%), Portugal (6.4%), Italy (5.7%) and Ireland (6%). However, it should be borne in mind that the methodology underpinning the collation of PPP comparative price data (the primary source of comparative price data) is not ideally suited to year-on-year analysis – and historical

rankings should be interpreted as indicative of a general trend only. Moreover, the recent deterioration in the relative affordability of consumer goods/ services in Ireland needs to be seen in the context of wage growth that has outstripped that experienced in any other eurozone economy (see Table 4.3).

Finally, while beyond the Terms of Reference of this study, it is instructive to consider the relative cost of consumer goods/ services in Ireland in the context of the EU15. The non-eurozone economies, namely Denmark, Sweden and the UK, are all more expensive than Ireland. Thus, in an EU15 comparison, Ireland ranks as the 5th most expensive country versus the 2nd (estimate only) in an EU12 comparison.

Why is Ireland more Expensive?

The deterioration in the relative affordability of consumer goods/ services in Ireland in recent times can be attributed to rates of consumer price inflation that have outstripped those of the eurozone as a whole, and most other eurozone economies. Inflation differentials are explained by Ireland's exceptional economic performance in recent years, with the result that demand for labour has outstripped supply. The consequence of this was income growth that was not fully warranted by productivity gains (i.e. wage drift) or general inflation, and high levels of consumer price inflation.

Inflation differentials alone, however, are not the full explanation of consumer price differentials between Ireland and other eurozone economies. Rather, other factors that come into play are the following:

- indirect taxation;
- regulatory factors/ competition;
- retail structures;
- national preferences;
- market size/ geographic location.

The eurozone's two most expensive countries, i.e. Finland and Ireland, are characterised by the highest levels of **indirect taxation**, which take the form of VAT, excise duty and VRT. The importance of indirect taxation in determining relative price

levels is reflected in the very high relative price of off-licence alcohol and tobacco, and “pubs and restaurants” in Ireland, in particular, but also in Finland. Ireland’s relatively low ranking for transport (3), in view of high rates of VRT, partially reflects the fact that manufacturers price discriminate when selling into Ireland to ensure affordability of what are high-involvement, price sensitive goods¹⁷. However, and as highlighted previously, it is important to bear in mind that indirect taxation levels within any economy operate within a much wider taxation framework. In the case of Ireland, high levels of indirect taxation co-exist with relatively low levels of taxation on personal income. This is not the case for Finland (see Figure 4.1)

With regard to regulatory factors, the benefits of a relaxation of regulatory controls/ stimulation of **competition** in improving the relative price of consumer goods/ services are evidenced in the case of communications, the only category of expenditure where the relative price of services in Ireland has improved considerably in recent years. By contrast, the relative expensiveness of “pubs and restaurants” and, to a lesser extent, “health”, may be, in large part, attributable to the fact that supply of services is limited either by a licensing regime or by the number, or allocation, of places available in Irish universities.

Levels of internal competition for the supply of services in Ireland are not, however, determined by regulatory factors alone. Rather, rapid growth in disposable incomes in recent years has stimulated levels of demand for a range of services with which the relevant supply infrastructure may simply not have been able to cope. This “catch-up” requirement may very well explain Ireland’s current standing as one of the most expensive countries in the eurozone in which to procure a variety of consumer services.

Regulatory factors may also have a role to play in the **structure and competitiveness of retail** in Ireland, the Grocery Order prohibiting below invoice selling and the Planning Development Act prohibiting the development of retail centres above a certain size (see Chapter 4). A review of the relative cost of supermarket goods in Ireland suggest that these regulations may be impeding the competitiveness of supply of food/ non food consumables. For example, in spite of the fact that Ireland has a zero VAT rate on

¹⁷ In addition, the “transport” categories incorporates a range of goods and services, of which motor vehicles are just one element. In addition, levels of excise on motor fuels are relatively low in the case of Ireland.

unprocessed foodstuffs, the country remains relatively expensive for a range of products, particularly fruit and vegetables. Similarly, Mercer data show that Ireland is the most expensive country in which to buy a basket of groceries (food and non-food) in mid-priced retail outlets, and that there is a virtual absence of retail discounters relative to the situation in other Northern European economies. While certain commentators have expressed the view that price differentials in this regard are attributable to cultural and geographical factors¹⁸, it is most probable that there are other factors at play that may merit further examination.

In addition, some element of consumer price differentials at aggregate level, and indeed within product/ service categories, may be attributed to **national preferences**. For example, countries that have relatively high consumptions of excisable goods will (using a nationally representative approach) be more expensive than others. Similarly, Irish consumers are said to favour more expensive strains of potato than their eurozone counterparts, and are, supposedly, unique in their requirement for an expiry date on eggs. While the research approach employed here tried to control for national preferences by using nationally representative and non-representative data, their unquantifiable nature means that definitive conclusions on the underlying causes of consumer price differentials between countries are not always possible.

Finally, Ireland is an **island nation** and the market for consumer goods/ services is small in a wider eurozone context. Again, the precise role that these factors play in determining price differentials between countries may not be determined, but may be significant for certain types of good/ service, e.g. products which are perishable, high volume and/ or low value.

¹⁸ for example, the assertion that the size and distribution of the Irish population is such as not to be able to sustain hypermarkets and that there is little appetite for discount selling among Irish consumers, owing to food safety concerns.

6.3 Consumer Prices in the Changeover Period

Before seeking to assess the normality or otherwise of price developments during the euro changeover, it is instructive to remind ourselves of those factors that determine levels of consumer price inflation in a small open economy such as Ireland.

What determines Inflation?

For much of the past 30 years, there has been a consensus that inflation in Ireland is essentially externally driven, and that world inflation and changes in the exchange rate can explain Irish inflation. This view is based on the relatively small size of the Irish economy, which means that Ireland is a price taker in export markets, and in relation to imports, and on the very open nature of the Irish economy. However, not all output is traded – the largest share of services output is not traded internationally and the Irish economy also has a large non market sector, where prices perform a very limited function. The primary drivers of inflation in the non-traded market sector are changes in total demand in the economy, levels of internal competition, changes in administered prices (e.g. charges for private beds in public hospitals) and levels of indirect taxation (e.g. VAT). Changes in total demand in the economy affects the price of non-tradeables in two distinct ways:

- increased demand can lead to increased prices for non-traded goods and services, e.g. housing and housing services;
- increased prices for these services leads to demand for higher wages from workers affected by these price increases, compounding the original price increases experienced and spreading them to other non-traded sectors.

The extent to which demands for wage increases translate into higher prices depends on developments in the productivity of labour, i.e. if productivity is keeping pace with wage increases there should be no increase in price. Productivity of labour differentials between traded and non-traded sectors also play an important role in determining developments in the price of non-tradeables – the non-traded sectors needing to track wage rates in manufacturing industry in order to be able to continue to attract labour.

Reflecting some combination of these factors, services inflation in Ireland is higher than goods inflation, and the gap is widening.

Thus, the major drivers of services inflation in Ireland are consumer demand and wage levels/ productivity within the services sector. Tables 6.1 and 6.2 show developments in these inflation drivers between 1999 and end 2001.

Table 6.1 Personal Consumption of Goods and Services, € million, Selected Years

		Personal Consumption of Goods/ Services (€ m)	Quarterly % Increase	Annual % Increase
1999	Full Year	€ 44,062		
2000	Full Year	€ 50,686		15.0%
	Q1	€ 11,745		
	Q2	€ 12,304	4.8%	
	Q3	€ 12,542	1.9%	
	Q4	€ 14,095	12.4%	
2001	Full Year	€ 56,001		10.5%
	Q1	€ 13,090	-7.1%	
	Q2	€ 13,612	4.0%	
	Q3	€ 13,751	1.0%	
	Q4	€ 15,548	13.1%	

Source: Central Statistics Office

Table 6.2 Average Weekly Earnings for Full Time Employees in Accommodation and Catering¹⁹, 1999 to 2001

		Average Weekly Earnings	Quarterly % Increase	Annual % Increase
1999	Full Year	€ 303.8		
2000	Full Year	€ 322.0		
	Q1	€ 310.0		
	Q2	€ 313.8	1.2%	
	Q3	€ 327.5	4.4%	
	Q4	€ 336.8	2.8%	6.0%
2001	Full Year	€ 339.9		
	Q1	€ 338.3	0.5%	
	Q2	€ 337.0	-0.4%	
	Q3	€ 345.2	2.4%	
	Q4	€ 339.1	-1.8%	5.5%

Source: Central Statistics Office

¹⁹ Accommodation and catering was taken as a proxy for the services sector as a whole. The consultants also examined changes in the weekly earnings of full-time employees in retailing and the decline in rates of growth was considerably larger than that shown in Table 6.2.

Declines in the rate of growth of consumer demand and wages in the Irish services sector suggest that increases in the prices of consumer services during the changeover should have been more modest than, or certainly not have exceeded, prices for the respective period in 2000/2001 – sector-specific developments aside. With this in mind, we turn now to a discussion of whether price developments in the € changeover period can be considered “normal” in a national historical context.

Were there Unusual Price Developments during the Changeover?

At **aggregate level**, the answer to the question posed is that consumer price inflation appeared normal in the context of what had been happening in the months in the run up to the changeover, for the same period the preceding year and indeed for the period since 1999, when inflation rates started to rise. Similarly, inflation trends at COICOP or consumer good/ service category level for the full year to end 2001 seemed to be broadly in line with trends for the previous years, i.e. characterised by a gradual increase in rates of inflation in the largest service-dominated categories.

A closer look at inflation levels in the September 2001 to March 2002 period at **COICOP level**, however, revealed levels of inflation in certain categories of good/ service that were unusual in the context of the four preceding years and in the context of wider national developments in consumer demand/ wage rates (see Tables 6.1 and 6.2). A second measure of the normality of pricing behaviour during the changeover, namely average prices in January to March relative to average prices in the full year April to March, confirmed the presence of what appeared to be some unusual pricing behaviour.

While the preponderance of service-dominated categories of consumer expenditure suggested the non-traded sector to be the primary driver of unusual price developments, a closer look at price anomalies by consumer product/ service type (e.g. cinema) across all expenditure categories confirmed this to be the case – with a small number of notable exceptions. Consumer products and services displaying “unusual” pricing behaviour (using the “average prices in January to March/ average prices in full year to end March” measure) during the changeover are the following:

Health

- outpatient services:
 - *dentists' fees;*
 - *doctors' fees;*
 - *opticians' fees.*
- pharmaceutical products.

Recreation and Culture

- cultural services, including:
 - *cinema;*
 - *cultural admittances.*
- recreational and sporting services.
- package holidays.

Pubs and Restaurants

- “restaurants, cafes and licensed premises”, including:
 - *beer in licensed premises;*
 - *spirits in licensed premises;*
 - *wine in licensed premises;*
 - *soft drinks/ bottled water – licensed premises;*
 - *lunch/ dinner in restaurants.*
- catering services.
- accommodation services.

Miscellaneous Goods and Services

- hairdressing.
- other services.

Education

- private education and training.

Transport

- “other services” in respect of motor vehicles, including:
 - *driving licences;*
 - *other vehicle costs.*
- taxi fares.
- “other purchased transport services”, e.g. furniture removal.

Housing

- local authority rents.
- services for the maintenance of dwelling, e.g. plumbing.
- other services relating to the dwelling, e.g. chimney sweeps.
- electricity.

Food and Non-Alcoholic Beverages

- flour
- cakes

Off-Licence Alcohol and Tobacco

- wine

Furnishings/ Household Equipment

- repair of household appliances

The first point to note in relation to the foregoing list is that certain of the unusual price increases during the changeover were subject to Government influence, most notably local authority rents, electricity costs, taxi fares and driving licences²⁰. The second point to note, and one made previously, is the preponderance of non-tradeables, i.e. services.

²⁰ The “unusual” nature of price increases in the case of electricity and driving licences is attributable to the fact that there was practically no change in the price of either for the four preceding years.

While the foregoing list refers only to consumer products/ services which recorded unusually high price increases during the changeover, there were also a number of situations where price increases recorded were low in a national historical context. This was particularly true for the “food and non-alcoholic beverages” category of expenditure, suggesting that the various voluntary codes, to which all of the major food retailers subscribed, were effective in ensuring fair play and may well have acted to suppress price increases in these months, although pricing behaviour in the period up to September 2001 was not considered as part of this assignment.

Why did it Happen?

There are a number of possible explanations for the occurrence of unusual price increases during the changeover period²¹.

The first of these is that there were factors at play in the **external environment** (excluding those directly related to the changeover) of Irish service enterprises that required exceptional price increases in the months directly after the changeover.

A review of developments in the major drivers of services inflation in Ireland to end 2001 (i.e. demand and wage levels - see Tables 6.1 and 6.2) suggested that external factors should have led to some deceleration of price increases on 2000/2001 levels during the changeover period. The potentially favourable effects of these developments may have been countered, to some extent, by hikes in the costs of public, employer and product liability costs in response to the terrorist attacks of September 11th, but IBEC survey findings suggest that costs of **insurance** to enterprise have been rising steadily for the past two years, i.e. this is not a changeover-specific development. In addition, insurance costs increase only when a premium comes up for renewal, which in many cases does not coincide with the beginning of a calendar year, and there is no particular reason why the impact of such premium hikes would weigh most heavily on one particular sector of the economy, i.e. services. Similarly, the impact of the re-introduction of a 21% standard

²¹ Explanations set out here are not relevant to price increases in regulated/ partially regulated sectors, e.g. taxis, where the timing of price increases is a matter of policy.

rate of **VAT** on prices after the changeover is not sufficiently large²² to explain the price anomalies described in Chapter 5 of this report.

Aside from general inflation drivers, there may have been product/ service specific factors at play that mean that certain of the unusual price increases recorded during the changeover are justified on the basis of increased costs. The Terms of Reference for this study, however, did not extend to a review of sector-specific drivers of inflation.

A second potential explanation of unusual price developments in the changeover is that Irish businesses incurred significant costs as a direct result of the changeover. These costs were direct costs arising from changes in accounting and pricing systems, and indirect costs incurred in staff training and overtime payments. They were, however, once-off in nature and should not have been significant in absolute or relative terms in the case of most enterprises. Moreover, it is reasonable to assume that these were incurred by all enterprises, i.e. services and non services, although it is likely that the **cost of € conversion** may have been higher as a proportion of turnover for service enterprises, which are characterised by their relatively small size.

Prior to the changeover, it was estimated that the cost of conversion would potentially add 0.3% to inflation in 2001 and 0.1% to inflation in 2002. Assuming this to be the case, the measure used to determine the “normality” of pricing during the changeover (i.e. average prices in January to March relative to average prices in the full year April to March) should have controlled for the price effects of these costs. Moreover, these impacts are small relative to the size of price anomalies identified. Therefore, it is very unlikely that the price anomalies identified in Chapter 5 are explained to any real extent by the costs incurred by enterprises in converting to the euro.

A third, and more plausible explanation than either of the foregoing, pertains to the “**convenience factor**”, alluded to in Chapter 1.

With the exception of a small number of enterprise types (e.g. public houses), firms tend to change prices discretely, rather than continuously, and there is an administrative cost

²² Using the standard measure of price normality (i.e. average prices in January to March/ average prices in full year April to March), the impact of the re-introduction of the higher rate of VAT is less than one quarter of a percent (i.e. 121/120

associated with doing so (e.g. reproduction of menus). It is, thus, likely that certain enterprises brought forward (or indeed deferred) planned price increases to coincide with the introduction of the euro to avoid having to do so again later in the year. The extent to which this constitutes “euro profiteering” will clearly depend on how that enterprise behaves in the future. If he/ she is operating in a sufficiently competitive environment, it is most likely that the consumer will, at some point, be compensated with the deferral of a future price increase. If not, then this constitutes “euro profiteering”.

Similarly, certain enterprises only deal in notes and coins of a certain denomination (e.g. bus fares, doctors, toll bridges), and will not have converted in strict adherence with the euro code as a result. This may have acted to the benefit or detriment to the consumer, although findings presented in Chapter 5 suggest that many service enterprises tended to round up as opposed to down. Again, the extent to which this constitutes euro profiteering will depend on the future pricing behaviour of these enterprises.

Finally, retailers of certain types of good (most notably food) like to use “psychological pricing points”. These all but disappeared from Irish shelves during the changeover, but are starting to make a re-appearance. The extent to which rounding up to these figures constitutes euro-profiteering will depend on the value of products that are rounded-down, as well as the longer-term pricing behaviour of enterprises. As in any situation, however, some consumers will simply fare better than others, e.g. certain consumers, by virtue of their expenditure patterns, will have a higher share of “rounded up” items in their basket of goods and services than others.

Again, it should be noted that “convenience factors” affect service and non-service enterprises (e.g. supermarkets/ “food and non-alcoholic beverages”) alike, but that pricing anomalies during the € changeover were nearly exclusively the preserve of service enterprises.

The final, and most ominous, explanation of unusual price increases in the early parts of this year (i.e. January to March) is the possibility that enterprises used the euro changeover to increase profits to make additional profits, i.e. “**euro profiteering**”. This begs the question as to why an enterprise would wait until the introduction of the euro to

profiteer? Surely as an independent operator, he/ she could raise prices at any time in a bid to increase profits? There are two possible reasons.

The first, and most obvious, is that he or she hopes that the consumer, in the price confusion engendered by the introduction of the euro, will not notice the price increase in the short term. In the medium-term, however, the consumer will observe price differentials with other service providers and relocate. That is, of course, assuming that the consumer has a choice in terms of service provider, that other enterprises have not engaged in a similar behaviour and/or that the consumer is not tied to the enterprise in some way, e.g. loyalty to a family doctor. This type of behaviour is effectively impossible in highly competitive markets, but a number of factors mean that levels of competition for the supply of certain services in Ireland are most likely below desirable levels. These factors include a burgeoning demand for consumer services in Ireland and the inability of the supply infrastructure to keep pace, the restricted supply of certain types of medical professional in Ireland owing to the limited availability of university places and the continued regulation of a small number of service sectors, most notably pubs.

The second reason pertains to regulated sectors, or sectors that are being closely observed from a competition perspective. In such an instance, there is an incentive to tie a price increase into a currency change in a bid to avoid unwanted attention from competition authorities/ the generation of customer complaints. Changes in indirect taxation also provide such an opportunity for sectors where market entry is restricted. The timing of increases in the price of drinks in public houses in Ireland (see Annex 3) provides an interesting case study in this regard.

Were the Complaints Justified?

The answer to this depends on what is intended by the question.

If the question pertains to whether the large volume of consumer complaints regarding unusual price increases, particularly in the non-traded sector, had any basis in reality, then the answer is that the complaints were not without justification. Analysis of consumer price inflation data in Chapter 5 showed there to be a series of anomalous price increases across a range of product/ service areas in Ireland. Moreover, the

direction of the complaints (i.e. doctors, hairdressers, public houses) was broadly consistent with the profile of services/ goods where pricing behaviour during the changeover was identified as being unusual in a national historical context.

If the question “were the complaints justified?” pertains to whether the large volume of consumer complaints regarding unusual price increases were entirely commensurate with the reality on the ground, the answer is less clear. At aggregate level, consumer price inflation during the changeover was not anomalous in an historical context, i.e. the anomalous pricing behaviour of certain suppliers of consumer services was negated in large part by favourable price developments in other areas of consumer expenditure, e.g. housing and food. Moreover, it generally takes time for consumers to adjust to the fact that a unit of the new currency is simply not as valuable as a unit of the old - € illusion, as this has been dubbed, is reflected in the fact that a large number of people have yet to, or have only recently, adjusted their average ATM withdrawal amount to reflect the diminished value of a unit of the national currency. Finally, consumer prices in Ireland have been edging up for some time now, and the introduction of the euro most likely served to cast this fact into a much clearer light for many consumers.

If the question “were the complaints justified” pertains to whether there was euro profiteering on a grand scale in Ireland, the answer is no. There is preliminary evidence of euro profiteering, but this is not economy-wide – rather would appear to be confined to the non-traded sectors, and particularly those where competition is not particularly strong either as a result of regulation/ restricted market entry or an inadequate supply. Couple any of these factors with an inelastic demand such as exists for public houses and healthcare, and potential for profiteering exists. The extent to which unusual pricing behaviour during the changeover constitutes profiteering will only become apparent with the passage of time, as all of the euro-induced pricing behaviours wash out of the system. Moreover, it is not possible to determine at what point in the supply chain the “unusual” pricing behaviour commenced, i.e. it may be the case that those enterprises that deal directly with consumers are themselves victims of some “euro-profiteering” higher up in the supply chain.

6.4 Report Recommendations

The objective of this study was to form a “first cut” view on the questions posed in the Terms of Reference, relying solely on secondary information sources. This brief, together with the fact that the changeover period has now expired and is unlikely to be repeated in the short to medium-term, constrain the extent to which the consultants can make meaningful recommendations for policy change. Notwithstanding this, the study threw up a number of issues meriting further examination, namely:

- levels of competition for the supply of services in Ireland;
- factors constraining levels of competition for the supply of services in Ireland;
- case for the deregulation of the pub sector in Ireland;
- competitiveness of the Irish supermarket/ retail structure;
- impact of the Grocery Order and Planning Development Act on the competitiveness of retail in Ireland;
- factors underpinning the high cost of unprocessed foodstuffs in Ireland.

The consultants are not recommending that further research be carried out into the product/ service specific drivers of inflation for those categories of product/ service that displayed unusual pricing behaviour during the changeover on the basis that: a) regardless of the volume of research resources committed to this task, a number of factors mean that it may be impossible to prove, beyond doubt, that euro-profiteering took place; and b) there is very little that could be practically done to penalise those committed of having profited during the changeover. Rather, the focus on the recommendations is on ensuring that the market for consumer goods/ services in Ireland is sufficiently competitive going forward to ensure that the potential for such behaviour does not present itself again.

**Comparative Consumer Prices in the Eurozone & Consumer
Price Inflation in the Changeover Period**

Appendices to Main Report



Annex 1 : Eurostat/ PPP Derived Comparative Price Indices

1995	EU 15	B	D	GR	ES	F	IE	IT	LU	NL	AT	PT	FI
01 Private final consumption	100	109	115	78	83	111	86	80	106	107	115	73	123
0101 Food, beverages, tobacco	100	107	107	81	82	109	102	91	103	100	110	79	133
010101 Food	100	106	110	82	87	112	89	94	111	99	112	81	120
01010101 Bread and cereals	100	99	113	93	94	116	83	90	106	91	109	71	137
01010102 Meat	100	110	116	73	75	115	84	94	123	120	122	74	119
01010103 Fish	100	124	127	84	90	112	81	108	125	98	120	84	93
01010104 Milk, cheese and eggs	100	114	94	94	92	111	107	102	100	95	105	83	107
01010105 Oils and fats	100	115	104	111	94	108	91	89	114	88	120	91	129
01010106 Fruits, vegetables, potatoes	100	101	114	67	89	115	97	87	111	99	109	84	124
01010199 Other food	100	100	105	107	99	107	83	101	103	89	107	110	125
01010201 Non-alcoholic beverages	100	106	111	88	78	95	120	72	90	97	88	92	131
01010202 Alcoholic beverages	100	110	91	91	70	100	179	78	99	112	109	76	219
010103 Tobacco	100	104	111	66	60	98	131	87	85	97	109	66	142
0102 Clothing and footwear	100	121	114	112	92	120	92	84	137	100	108	99	126
0103 Gross rents, fuel and power	100	125	136	78	70	113	56	63	110	120	113	45	109
010301 Gross rents	100	132	141	77	68	114	50	57	117	132	115	31	117
010302 Fuel and power	100	106	118	81	82	112	84	93	87	85	106	107	85
0104 Household equipment and operation	100	106	113	82	89	112	88	83	117	101	115	78	119
0105 Medical and health care	100	99	114	58	88	95	79	75	107	100	118	89	123
0106 Transport and communication	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
010604 Communication	100	120	116	69	82	105	125	80	77	89	131	105	99
0107 Recreation, education and culture	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
010704 Education	100	125	160	58	72	141	80	71	92	128	126	57	111
010801 Restaurants, cafés and hotels	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
0108 Miscellaneous goods and services	100	104	113	86	84	123	104	82	104	114	120	65	132

Source: Eurostat

1996	EU 15	B	D	GR	ES	F	IE	IT	LU	NL	AT	PT	FI
01 Private final consumption	100	103	112	81	83	113	94	87	101	103	109	74	117
0101 Food, beverages, tobacco	100	102	102	83	82	107	107	99	98	95	104	77	125
010101 Food	100	102	105	85	87	110	90	102	106	94	106	79	112
01010101 Bread and cereals	100	96	109	97	95	115	85	98	102	87	104	69	129
01010102 Meat	100	104	109	74	75	112	85	101	116	113	115	74	106
01010103 Fish	100	118	121	89	90	110	85	115	125	93	113	81	84
01010104 Milk, cheese and eggs	100	110	89	93	91	108	109	112	94	90	101	81	101
01010105 Oils and fats	100	106	96	124	101	103	91	101	105	80	110	93	113
01010106 Fruits, vegetables, potatoes	100	98	112	67	87	112	97	91	104	93	103	78	119
01010199 Other food	100	97	102	113	99	108	84	113	100	84	102	115	118
01010201 Non-alcoholic beverages	100	100	106	90	77	93	132	80	86	92	85	89	123
01010202 Alcoholic beverages	100	97	82	93	68	92	187	82	87	99	97	71	194
010103 Tobacco	100	101	105	68	62	101	135	95	83	93	105	66	141
0102 Clothing and footwear	100	115	109	116	93	118	91	92	130	96	102	98	121
0103 Gross rents, fuel and power	100	108	135	73	70	124	75	67	102	118	101	51	107
010301 Gross rents	100	112	144	71	67	128	73	60	109	128	100	39	115
010302 Fuel and power	100	103	110	86	84	113	86	100	87	87	107	106	86
0104 Household equipment and operation	100	100	108	87	95	108	94	97	109	98	104	81	101
0105 Medical and health care	100	96	114	59	89	96	83	81	106	94	119	89	120
0106 Transport and communication	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
010604 Communication	100	115	126	73	79	99	116	83	73	90	132	107	85
0107 Recreation, education and culture	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
010704 Education	100	123	151	64	78	144	87	79	93	131	133	57	109
010801 Restaurants, cafés and hotels	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
0108 Miscellaneous goods and services	100	98	109	91	83	122	106	90	100	111	116	66	128

Source: Eurostat

1997	EU 15	B	D	GR	ES	F	IE	IT	LU	NL	AT	PT	FI
01 Private final consumption	100	99	106	83	82	106	97	89	100	96	106	73	119
0101 Food, beverages, tobacco	100	99	97	88	78	105	111	98	91	91	100	74	122
010101 Food	100	101	103	91	81	109	95	101	102	92	104	77	110
01010101 Bread and cereals	100	93	106	99	91	117	91	98	99	84	102	69	127
01010102 Meat	100	102	108	77	74	112	90	99	114	110	112	72	98
01010103 Fish	100	119	118	93	91	109	87	113	120	93	106	78	78
01010104 Milk, cheese and eggs	100	108	85	94	88	102	116	115	91	87	97	79	102
01010105 Oils and fats	100	112	99	129	70	110	104	110	110	81	113	82	121
01010106 Fruits, vegetables, potatoes	100	98	110	77	80	110	98	90	96	92	102	79	118
01010199 Other food	100	97	98	121	90	106	91	112	94	83	100	103	123
01010201 Non-alcoholic beverages	100	94	97	97	71	91	140	78	81	87	80	81	122
01010202 Alcoholic beverages	100	90	73	98	62	86	190	82	81	89	87	65	183
010103 Tobacco	100	93	94	68	69	100	133	90	66	85	94	65	127
0102 Clothing and footwear	100	115	110	106	93	97	97	92	116	103	111	89	105
0103 Gross rents, fuel and power	100	101	132	72	69	111	78	70	118	102	99	50	124
010301 Gross rents	100	102	138	72	66	113	76	64	130	104	98	37	136
010302 Fuel and power	100	102	110	76	81	109	90	101	88	96	109	111	91
0104 Household equipment and operation	100	98	102	91	91	104	99	100	107	96	104	78	97
0105 Medical and health care	100	92	103	67	97	101	100	102	115	83	122	95	129
0106 Transport and communication	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
010604 Communication	100	134	100	85	84	101	130	90	81	95	140	120	93
0107 Recreation, education and culture	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
010704 Education	100	106	98	90	103	108	96	106	97	91	110	80	120
010801 Restaurants, cafés and hotels	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
0108 Miscellaneous goods and services	100	99	105	89	84	109	97	91	97	103	110	71	127

Source: Eurostat

1998	EU 15	B	D	GR	ES	F	IE	IT	LU	NL	AT	PT	FI
01 Private final consumption	100	99	106	80	84	104	99	88	101	95	106	72	118
0101 Food, beverages, tobacco	100	100	101	83	78	103	111	96	94	93	104	77	120
010101 Food	100	102	106	85	83	107	99	98	106	94	108	82	110
01010101 Bread and cereals	100	98	110	81	99	108	99	92	102	84	112	72	125
01010102 Meat	100	103	117	68	74	110	90	94	111	108	108	72	100
01010103 Fish	100	111	114	91	84	107	91	101	108	90	130	114	83
01010104 Milk, cheese and eggs	100	111	87	99	88	106	115	109	96	91	97	89	104
01010105 Oils and fats	100	109	110	109	81	107	95	96	114	84	121	86	121
01010106 Fruits, vegetables, potatoes	100	96	107	78	80	108	109	97	116	91	104	74	114
01010199 Other food	100	98	95	112	88	101	96	104	97	92	110	108	126
01010201 Non-alcoholic beverages	100	105	101	92	65	78	125	79	84	96	87	90	135
01010202 Alcoholic beverages	100	93	85	91	66	96	154	92	86	97	98	64	173
010103 Tobacco	100	90	96	70	60	94	137	95	69	87	92	65	124
0102 Clothing and footwear	100	114	109	102	92	96	84	90	115	104	110	85	98
0103 Gross rents, fuel and power	100	101	128	71	77	111	104	70	125	91	100	46	127
010301 Gross rents	100	102	135	72	75	113	111	63	142	91	100	33	139
010302 Fuel and power	100	99	107	72	86	107	85	107	85	96	106	113	91
0104 Household equipment and operation	100	97	101	88	91	103	93	99	105	96	103	77	93
0105 Medical and health care	100	90	106	63	103	100	99	100	111	76	121	99	132
0106 Transport and communication	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
010604 Communication	100	134	100	83	89	98	119	91	81	97	140	114	89
0107 Recreation, education and culture	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
010704 Education	100	108	97	88	103	109	93	109	97	90	111	80	119
010801 Restaurants, cafés and hotels	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
0108 Miscellaneous goods and services	100	97	102	86	87	106	92	90	96	101	107	70	121

Source: Eurostat

1999	EU 15	B	D	GR	ES	F	IE	IT	LU	NL	AT	PT	FI
01 Final consumption by private households	100	102	104	82	83	105	103	86	98	97	101	73	120
0101 Food and non-alcoholic beverages	100	103	101	93	85	107	102	97	105	93	104	86	113
010101 Food	100	103	101	92	86	109	102	97	107	94	105	85	113
01010101 Bread and cereals	100	100	98	92	110	111	103	98	103	83	107	81	125
01010102 Meat	100	106	113	71	76	110	95	94	110	108	107	76	102
01010103 Fish	100	118	115	88	82	113	82	100	108	90	129	111	93
01010104 Milk, cheese and eggs	100	113	86	102	88	109	117	108	98	92	97	92	106
01010105 Oils and fats	100	108	97	115	103	111	91	94	111	76	113	96	115
01010106 Fruits, vegetables, potatoes	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
01010199 Other food	100	98	91	119	95	107	104	98	96	96	107	109	129
010102 Non-alcoholic beverages	100	108	105	101	72	88	103	92	94	90	96	97	123
0102 Alcoholic beverages, tobacco, narcotics	100	95	89	75	64	102	144	92	76	91	93	67	146
010201 Alcoholic beverages	100	95	84	89	69	100	156	91	85	96	97	72	172
010202 Tobacco	100	97	95	70	61	105	136	93	70	88	91	65	122
0103 Clothing and footwear	100	117	106	101	90	98	79	95	118	101	108	81	103
0104 Gross rents, fuel and power	100	101	129	73	79	111	115	67	121	98	99	44	123
010401 Rentals for housing	100	99	132	74	82	111	117	65	135	90	93	32	133
010403 Electricity, gas and other fuels	100	97	106	70	91	102	98	103	88	125	101	106	90
0105 Furnishings, equipment, maintenance	100	101	102	84	84	107	99	90	97	110	100	72	99
0106 Health	100	94	100	64	105	103	103	106	113	76	121	104	135
0107 Transport	100	99	96	75	87	101	105	89	83	105	104	94	123
0108 Communications	100	145	102	68	85	67	100	95	65	142	124	86	142
0109 Recreation and culture	100	106	96	87	88	105	96	91	94	94	102	83	123
0110 Education	100	114	138	66	76	120	82	94	156	100	112	58	113
0111 Restaurants and hotels	100	102	90	103	86	101	111	95	97	83	94	78	117
0112 Miscellaneous goods and services	100	98	98	84	83	116	89	89	78	97	99	66	119

2000	B	D	GR	ES	F	IE	IT	LU	NL	AT	PT	FI
01 Final consumption by private households	105	106	84	86	107	108	88	102	99	103	75	123
0101 Food and non-alcoholic beverages	103	100	95	87	109	105	98	107	94	106	88	114
010101 Food	103	100	94	88	111	105	98	109	95	107	87	114
01010101 Bread and cereals	103	98	93	112	113	107	100	105	84	108	84	127
01010102 Meat	106	113	72	80	113	99	96	111	109	109	79	104
01010103 Fish	122	116	90	86	116	88	103	113	94	129	116	96
01010104 Milk, cheese and eggs	113	85	106	89	111	119	109	100	92	96	93	108
01010105 Oils and fats	107	95	119	98	113	95	96	112	79	112	94	115
01010106 Fruits, vegetables, potatoes	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
01010199 Other food	97	90	119	95	111	109	99	97	98	108	111	130
010102 Non-alcoholic beverages	109	103	102	71	89	108	93	95	91	97	96	125
0102 Alcoholic beverages, tobacco, narcotics	97	90	77	66	105	161	93	78	94	94	68	150
010201 Alcoholic beverages	96	84	91	72	101	162	92	86	97	95	73	176
010202 Tobacco	99	98	72	63	110	157	94	73	92	95	66	126
0103 Clothing and footwear	114	106	103	92	98	75	97	119	100	107	82	103
0104 Gross rents, fuel and power	101	129	73	79	111	115	67	121	98	99	44	123
010401 Rentals for housing	101	134	77	85	111	130	67	139	92	95	33	136
010403 Electricity, gas and other fuels	99	106	72	95	98	101	105	90	129	102	111	92
0105 Furnishings, equipment, maintenance	102	102	85	86	107	103	92	99	112	101	73	100
0106 Health	95	101	65	108	104	109	109	126	78	124	107	138
010602 Medical services	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
0107 Transport	107	102	80	93	106	114	93	89	112	110	99	131
0108 Communications	143	97	58	80	64	97	91	61	134	118	82	142
0109 Recreation and culture	107	97	88	90	105	100	91	95	92	103	84	126
0110 Education	n.a.	142	68	79	122	92	96	158	103	117	60	115
0111 Restaurants and hotels	105	91	108	90	103	117	98	100	86	96	81	121
0112 Miscellaneous goods and services	100	100	86	85	118	94	91	78	100	100	69	123

Source: Eurostat/ PwC Derived (Updating by Applying HICP Data to 1999 Comparative Price Data)

2001	B	D	GR	ES	F	IE	IT	LU	NL	AT	PT	FI
01 Final consumption by private households	107	109	87	89	109	113	90	104	104	105	78	127
0101 Food and non-alcoholic beverages	108	105	99	92	115	112	102	112	100	109	93	119
010101 Food	108	105	98	93	117	112	102	115	102	111	93	119
01010101 Bread and cereals	105	101	98	116	116	112	102	108	88	112	88	131
01010102 Meat	113	121	77	87	122	109	101	118	120	115	86	111
01010103 Fish	130	122	93	91	120	93	108	123	104	130	124	97
01010104 Milk, cheese and eggs	117	89	112	95	117	124	112	104	99	100	97	113
01010105 Oils and fats	107	98	116	89	116	99	95	113	84	113	92	119
01010106 Fruits, vegetables, potatoes	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
01010199 Other food	98	92	124	95	115	114	100	100	103	110	116	134
010102 Non-alcoholic beverages	110	103	105	72	90	113	95	97	93	95	97	126
0102 Alcoholic beverages, tobacco, narcotics	98	92	83	68	108	165	95	81	100	98	70	152
010201 Alcoholic beverages	97	85	93	72	103	165	94	87	103	97	74	179
010202 Tobacco	103	100	78	66	115	161	96	76	98	99	69	128
0103 Clothing and footwear	115	107	106	91	99	73	98	122	102	107	83	104
0104 Gross rents, fuel and power	101	129	73	79	111	115	67	121	98	99	44	123
010401 Rentals for housing	102	135	80	89	112	147	68	143	95	97	34	142
010403 Electricity, gas and other fuels	104	107	74	99	101	105	107	92	136	104	116	95
0105 Furnishings, equipment, maintenance	104	103	87	88	109	106	93	101	118	102	76	102
0106 Health	95	102	66	110	104	117	108	128	83	131	110	142
010602 Medical services	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
0107 Transport	108	104	81	95	106	112	94	90	115	112	103	132
0108 Communications	132	95	57	79	61	89	89	54	130	118	80	146
Recreation and Culture	110	98	90	93	105	104	93	97	96	104	86	130
0110 Education	n.a.	144	71	83	125	98	99	161	106	128	63	119
0111 Restaurants and hotels	107	93	113	94	105	124	102	103	91	98	84	124
0112 Miscellaneous goods and services	103	103	89	88	120	99	94	81	104	103	72	127

Source: Eurostat/ PwC Derived (Updating by Applying HICP Data to 1999 Comparative Price Data)

Feb-02	B	D	GR	ES	F	IE	IT	LU	NL	AT	PT	FI
01 Final consumption by private households	107	110	89	90	110	115	91	105	107	106	79	128
0101 Food and non-alcoholic beverages	111	108	108	95	119	114	105	115	104	111	95	125
010101 Food	112	109	108	96	122	114	105	118	106	114	94	126
01010101 Bread and cereals	107	103	101	120	119	113	104	111	89	113	90	132
01010102 Meat	114	123	77	88	124	112	102	120	121	114	84	115
01010103 Fish	135	128	97	94	124	94	111	128	106	133	128	98
01010104 Milk, cheese and eggs	118	92	114	97	119	127	115	106	103	102	98	116
01010105 Oils and fats	107	97	118	98	118	101	96	115	85	114	96	121
01010106 Fruits, vegetables, potatoes	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
01010199 Other food	98	93	127	97	118	116	102	103	106	111	122	138
010102 Non-alcoholic beverages	110	104	107	72	91	114	96	98	94	94	98	126
0102 Alcoholic beverages, tobacco, narcotics	99	95	85	70	113	168	96	84	101	99	71	155
010201 Alcoholic beverages	97	85	95	72	103	168	96	88	104	98	75	183
010202 Tobacco	105	106	80	68	124	165	97	79	100	100	70	130
0103 Clothing and footwear	96	108	102	91	96	71	98	124	99	106	78	97
0104 Gross rents, fuel and power	101	129	73	79	111	115	67	121	98	99	44	123
010401 Rentals for housing	104	136	82	91	113	153	69	145	96	97	35	144
010403 Electricity, gas and other fuels	106	108	75	101	104	107	108	92	140	106	119	96
0105 Furnishings, equipment, maintenance	105	104	87	89	110	107	94	103	121	103	77	103
0106 Health	96	102	n.a.	112	104	124	110	122	89	134	114	147
010602 Medical services	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
0107 Transport	107	103	80	94	105	112	94	88	115	111	105	130
0108 Communications	132	94	56	79	61	90	88	51	129	118	80	149
Recreation and Culture	112	99	92	94	105	109	95	100	99	105	87	132
0110 Education	n.a.	146	73	85	127	104	101	171	109	151	65	121
0111 Restaurants and hotels	108	94	117	96	108	128	104	105	95	101	86	126
0112 Miscellaneous goods and services	105	105	90	90	122	103	96	83	108	105	75	130

Source: Eurostat/ PwC Derived (Updating by Applying HICP Data to 1999 Comparative Price Data)

Annex 2: Detailed Analysis of Price Increases during the Changeover

1: CPI at Sectoral Level/ Health

The major categories of consumer health expenditure in Ireland are medical products, appliances and equipment (41% of health / 1% of national), outpatient services (34% of health/ 0.8% of national) and hospital services (25% of health/ 0.6% of national). Hospital services recorded the highest rate of inflation during the changeover (7.3%), followed by outpatient services (6%) and medical products (2.5%).

Table 1 shows the estimated contributions of these categories to national and health inflation between September 2001 and March 2002.

Table 1 Estimated Drivers of Health Inflation in the Period September 01 to March 02				
	National CPI		Health Inflation	
	Contribution to % Change in CPI	% Contribution to % Change in CPI	Contribution to % Change in CPI	% Contribution to % Change in CPI
Medical Products	0.03	1%	1.17	21%
<i>Pharmaceutical Products</i>	<i>0.01</i>	<i>1%</i>	<i>0.45</i>	<i>8%</i>
<i>Other Medical Products</i>	<i>0.02</i>	<i>1%</i>	<i>0.63</i>	<i>11%</i>
Out-patient Services	0.06	3%	2.35	42%
<i>Medical and Paramedical Services</i>	<i>0.05</i>	<i>2%</i>	<i>1.91</i>	<i>34%</i>
<i>Dental Services</i>	<i>0.01</i>	<i>1%</i>	<i>0.48</i>	<i>9%</i>
Hospital Services	0.05	2%	2.03	37%
Total	0.14	6%	5.5	100%

Source: CSO (PwC Derived)

The major driver of health inflation during the changeover was outpatient services (42% contribution), followed by hospital services (37%) and medical products (21%). The predominance of the service elements is again to be noted. Reflecting a relatively small share of national spend, the total contribution to the national CPI % change in the period was 0.14/ 2.2 equivalent to 6%. The respective share for outpatient services was 0.06 or 3% and for hospital services, 0.05 or 2%.

An element of the health category that has received particular attention in recent months are outpatient services, in particular the fees of medical professionals. Opticians' (7.1%) and doctors' fees (7.6%) both grew at rates in excess of total inflation in the health

sector and considerably in excess of national inflation (2.2%). The rate of increase in dentists' fees (4.7%) was also above national inflation.

2: CPI at Sectoral Level/ Off-Licence Alcoholic Beverages and Tobacco

Off-licence Alcohol and Tobacco is the only category of consumer good/ service that does not include a significant services component singled out for separate consideration here. A distinct feature of this category of good or service is that inflation is determined to a large extent by Government decisions regarding excise levels. Major developments in this regard in the changeover period were an increase of 10 pence in the price of a pack of 20 cigarettes from January 2002 and the normalisation of the excise rate for cider – adding an estimated 27 cent to the price of a pint. These changes are evident in relatively high rates of inflation for tobacco (5.4%) and “wine and cider” (3.2%), and in their relative contributions to inflation in this consumer category in the changeover period (see Table 2).

Table 2 Estimated Drivers of Off-licence alcohol and tobacco Inflation in the Period September 02 to March 02

	National CPI		Off-Licence Alcohol & Tobacco Inflation	
	Contribution to % Change in CPI	% Contribution to % Change in CPI	Contribution to % Change in CPI	% Contribution to % Change in CPI
Alcoholic Beverages	0.06	3%	0.81	20%
<i>Spirits</i>	0.01	0%	0.08	2%
<i>Wine and Cider</i>	0.05	2%	0.61	15%
<i>Beer</i>	0.01	0%	0.13	3%
Tobacco	0.25	11%	3.34	80%
Total	0.31	14%	4.10	100%

Source: CSO (PwC Derived)

Table 2 shows that price changes in tobacco and “wine and cider” accounted for 95% of all off-licence alcohol and tobacco inflation in the changeover period, and contributed a large 13% to national inflation over the period – compared with a national consumption share of less than 6%. The overall contribution of this category to national inflation in the changeover was 14%, but increases in spirits and beer were so small as not to register.

3: CPI at Sectoral Level/ Pubs and Restaurants

Price increases in the category “Pubs and restaurants” added most to consumer price inflation in Ireland in the changeover period. This category is service dominated, and comprises three major sub-categories, namely restaurants and pubs (84% of R&H/ 15% of national), canteens (4% of R&H/ 0.7% of national) and accommodation services (13% of R&H/ 2.2% of national).

Restaurants and pubs were the only sub-category to record an increase in prices over the period, with an increase of 4.6% between September and March, compared with no change in canteen services and a modest decline (-0.3%) in accommodation services. Restaurants and pubs accounted for the full 35% contribution this category made to CPI % change in the changeover period (see Table 3).

Table 3 Estimated Drivers of Pubs and Restaurants Inflation in the Period September 01 to March 02

	National CPI		Pubs and restaurants Inflation	
	Contribution to % Change in CPI	% Contribution to % Change in CPI	Contribution to % Change in CPI	% Contribution to % Change in CPI
Catering Services	0.78	36%	4.40	101%
<i>Restaurants, Cafes & Licensed Premises</i>	0.78	36%	4.40	101%
<i>Canteens</i>	0.00	0%	0.00	0%
Accommodation Services	-0.01	-0.3%	-0.04	-1%
Total	0.77	35%	4.36	100%

Source: CSO (PwC Derived)

Table 4 provides a more detailed monthly analysis of price developments for a selection of the products/ services that make up the “restaurants, cafes & licensed premises” category – with shading indicating a price development that would appear out of sync with the normal monthly trend.

Table 4 Estimated % Change in CPI September 01 to March 02 – Monthly Analysis

	Sep./ Oct.	Oct./Nov.	Nov./Dec.	Dec./Jan	Jan./Feb	Feb./Mar.	Total
Stout 1 Pint	0.2	0.5	0.5	0.6	0.1	2.7	4.7
Lager Half Pint	-0.2	0.6	0.4	0.9	0.6	3.0	5.3
Lager 1 Pint	0.3	0.4	0.3	1.1	0.3	2.7	5.2
Bottle of Lager	0.2	0.4	0.4	1.1	0.3	2.8	5.3
Ale 1 Pint	0.2	0.4	0.4	0.9	0.4	2.8	5.2
Whiskey	0.3	0.5	0.5	1.2	0.2	3.1	5.9
Vodka	0.5	0.7	0.6	1.2	0.1	3.0	6.2
Alco Pop	0.4	0.3	0.6	1.2	0.3	2.2	5.1
Wine	0.3	0.7	0.4	1.3	0.1	2.2	5.1
Cider	0.2	0.6	0.6	1.7	0.6	3.1	7.0
Chips	0.6	0.7	0.8	1.2	0.4	0.8	4.6
Lunch	0.7	0.3	0.8	1.5	-0.3	0.9	4.0
Dinner	0.4	-0.2	0.7	1.3	0.7	0.3	3.2
Fast Food	0.0	0.9	0.9	0.8	-0.1	0.4	3.0
Take Away	0.3	0.3	1.5	0.6	-0.4	0.3	2.7
Snacks/ Tea or Coffee	2.5	0.0	0.0	2.7	0.0	0.0	5.2

Source: CSO (PwC Derived)

The period December/ January saw a series of increases in the cost of alcoholic beverages and restaurant services that seem to be inconsistent with the preceding months¹. The single exception in this regard from the publicans perspective was the price of a pint of stout. This was repeated in the case of pubs in February/ March – reflecting a return to a 21% rate of VAT in this month. Stripping out this 0.83% (i.e. 121/120) increase, however, prices increases in this month remain anomalous in the context of most of the previous months, and in most cases are still higher than the increases effected in the December/ January period.

4. CPI at Sectoral Level/ Miscellaneous Goods and Services

“Miscellaneous goods and services” accounted for close to 9% of national expenditure and incorporates “personal care” (27% of misc./ 2.4% of national), “social protection” (10% of misc./ 0.9% of national) and “insurance” (49% of misc./ 4.4% of national), among others. The category is dominated by services², but incorporates some product categories, e.g. jewellery. The insurance sub-category recorded the highest rate of

¹ It is important to note that in the case of cider, the imposition of standard excise in this month would have served to increase prices – although at the time of the Budget, Bulmers Ireland vowed not to pass the increase on to the consumer.

² although the insurance sector is anomalous in service terms, to the extent that it is not labour intensive.

inflation in the changeover period (8.4%), followed by “other services” (7.8%) and “social protection (7.4%). Table 5 shows the main drivers of inflation within this category in the September 2001 to March 2002 period.

Table 5 Estimated Drivers of Miscellaneous Goods and Services Inflation in the Period Sept. 01 to March 02

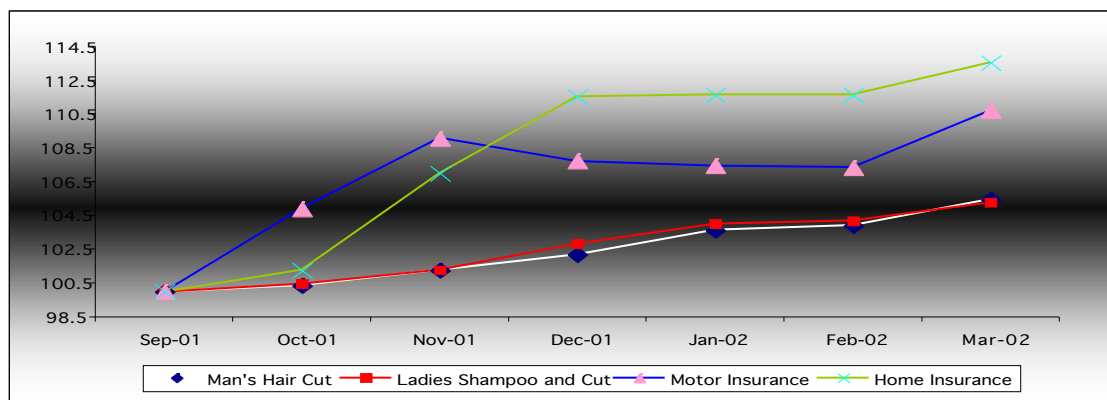
	National CPI		Misc. Goods and Services Inflation	
	Contribution to % Change in CPI	% Contribution to % Change in CPI	Contribution to % Change in CPI	% Contribution to % Change in CPI
Personal Care	0.06	3%	0.66	11%
<i>Hairdressing and Personal Grooming</i>	0.03	1%	0.32	5%
Other Personal Goods	-0.01	-1%	-0.12	-2%
<i>Jewellery, Clocks and Watches</i>	0.00	0%	-0.01	0%
<i>Other Personal Effects</i>	-0.01	0%	-0.11	-2%
Social Protection	0.07	3%	0.76	13%
Insurance	0.37	17%	4.09	68%
<i>Dwelling Insurance</i>	0.10	4%	1.10	18%
<i>Health Insurance</i>	0.02	1%	0.18	3%
<i>Transport Insurance</i>	0.25	11%	2.80	46%
Financial Services	0.00	0%	0.00	0%
Other Services	0.06	3%	0.65	11%
Total	0.54	25%	6.04	100%

Source: CSO (PwC Derived)

Price increases in the miscellaneous goods and services category were dominated by insurance, which accounted for close to 70% of the total increase in the period compared with an expenditure share of 49%. The highest rate of price increase recorded was **transport** (11.4%) and **home insurance** (14.1%). Price increases in these categories have been attributed to the insurance industry shock cause by the events of September 11th, reflected in the concentration of price hikes in October and November of 2001. **Social protection**, which comprises childcare and nursing home costs, was the next largest contributor in this category over the period, with childcare prices increasing by 6.8% and “other social protection” prices growing by 10.2%. **Personal care** contributed 11% to category price increases and 3% of the 2.2% national increase – in common with the “other services” category. There was a decline in the prices of “other personal goods”, and the price of financial services did not change.

Services falling into the “miscellaneous goods and services” category, the prices of which have attracted some attention in recent times, are hairdressing and insurance. Figure 3 shows monthly price developments for these services during the changeover.

Figure 3 Index of Price Increases in Fees of Selected Misc. Services, Sept. 01 to March 02 (Sept. = 100)



Source: CSO (PwC Derived)

As mentioned previously, there were very significant increases in the price of transport and home insurance in the months immediately following September 11th. Insurance prices remained relatively constant in January and February, but starting to edge back up in February and March. The price of hairdresser service has been increasing since October 2001, with some acceleration in the December to January period. Having flattened off in February, they rose modestly again in March.

5. CPI at Sectoral Level/ Recreation and Culture

“Recreation and Culture” account for close to 11% of national spending, and incorporates a selection of consumer goods and services, the largest of which in expenditure terms are: audio-visual, photographic, and information processing equipment (10% of R&C/ 1.1% of national), recreational and cultural services (30% of R&C/ 3.3% of national spend), newspapers, books and stationery (18% of R&C/ 1.9% of national spend) and package holidays (32% of R&C/ 3.4% of national spend). Recreational and cultural services recorded the highest rate of price increase of any sub-category in the changeover period (7.3%). Table 6 shows the main drivers of price increases within the Recreation and Culture category in the September 2001 to March 2002 period.

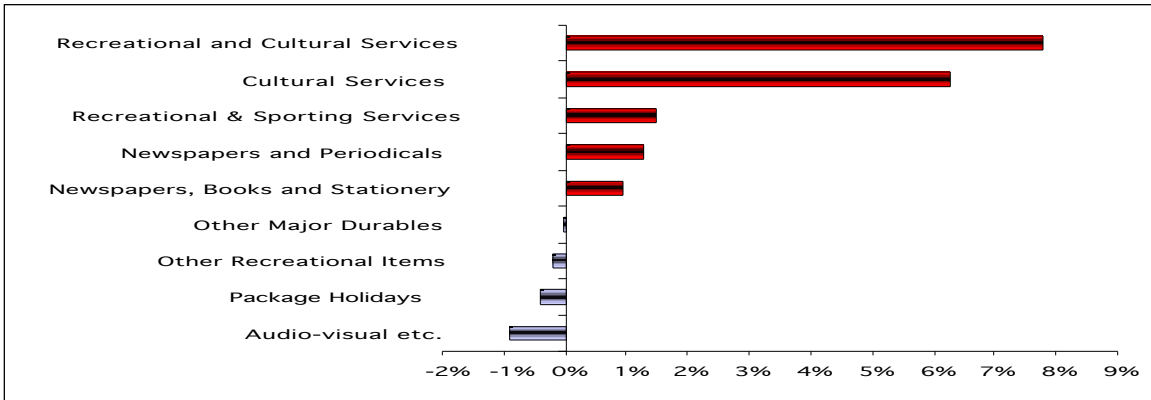
Table 6 Drivers of Recreation and Culture Inflation in the Period Sept. 01 to March 02

	National CPI		Recreation and Culture Inflation	
	Contribution to % Change in CPI	% Contribution to % Change in CPI	Contribution to % Change in CPI	% Contribution to % Change in CPI
Audio-visual, photographic and information processing equip.	0.00	0%	0.03	1%
Other Major Durables for R&C	0.00	0%	0.00	0%
Other Recreation Items, including garden and pets	0.02	1%	0.20	5%
Recreational and Cultural Services	0.24	11%	2.25	61%
<i>Recreational and Sporting Services</i>	0.06	3%	0.53	14%
<i>Cultural Services</i>	0.19	8%	1.72	47%
Newspapers, Books and Stationery	0.06	3%	0.58	16%
<i>Newspapers and Periodicals</i>	0.05	2%	0.46	13%
Package Holidays	0.07	3%	0.61	17%
Total	0.40	18%	3.67	100%

Source: CSO (PwC Derived)

“Recreational and Cultural Services” contributed the greatest amount (11%) to national inflation in the changeover period, with newspapers books and stationery (3%), and package holidays (3%) making up the balance of a total 18% contribution. Recreational and cultural services contributed a much greater amount to national inflation than their national share of spend (see Figure 4). This was also true, albeit to a much lesser extent, in the case of newspapers, books and stationery. All of the other sub-categories contributed a share that was less than their share of national spend.

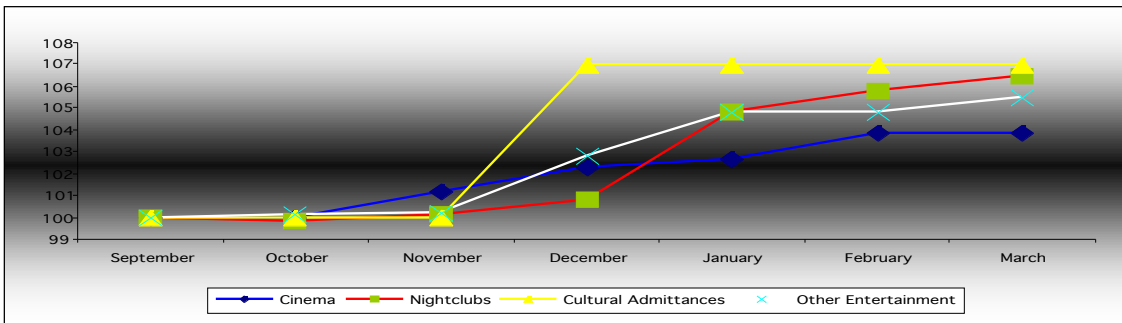
Figure 4 Estimated % Contribution to National Inflation in the Changeover minus % of Consumer Spend



Source: CSO (PwC Derived)

Figure 5 shows price developments for a selection of services within the “recreational and cultural services” category for the months September 2001 to March 2002.

Figure 5 Index of Price Increases in Fees of Selected R&C Services, Sept. 01 to March 02 (Sept. = 100)



Source: CSO (PwC Derived)

During the changeover, the price of cultural admittances increased by 7%. The respective increases for nightclubs and cinemas were 6.6% and 3.9%. The uniformity of the price increase in “cultural admittances” is explained by the fact that prices are recorded on a quarterly basis only.

ANNEX 3: Detailed VAT Rates

	AU	BE	FR	FI	LU	IT	NL	DE	PO	IE	GR	ES	UK
Standard rate	20	21	19.6	22	15	20	19	16	17 (12)	21	18 (13)	16	17.5
Foodstuffs	10	6 12 21	5.5 19.6	17	3	4 10 20	6	7 16	5 (4) 12 (8) 17 (12)	0 12.5 21	8 (6)	4 7	0 17.5
Fruit & Vegetables	10	6	5.5	17	3	4	6	7	5 (4) 12 (8) 17 (12)	0	8 (6)	4	0
Dairy Products (e.g. Milk, Cheese, Eggs)	10	6	5.5	17	3	4 10	6	7	5 (4) 12 (8) 17 (12)	0	8 (6)	4	0
Bread	10	6	5.5	17	3	Out of scope of VAT	6	7	5 (4) 12 (8) 17 (12)	0	8 (6)	4	0
Meat	10	6	5.5	17	3	10	6	7	5 (4) 12 (8) 17 (12)	0	8 (6)	7	0
Other processed Food	10 20	6 12 21	5.5 19.6	17 22	3 15	4 10 20	6 19	7 16	12 (8) 17 (12)	0 12.5 21	8 (6) 18 (13)	4 7 16	0 17.5
Alcoholic beverages	20	21	19.6	22	15	20	19	16	17 (12)	21	18	16	17.5
Wine	12 20	21	19.6	22	12	20	19	16	12 (8)	21	18	16	17.5
Non-alcoholic beverages	10 20	6 21	5.5 19.6	17 22	3 15	10 20	6 19	7 16	5 (4) 12 (8) 17 (12)	0 21	8 (6) 18	4 7 16	0 17.5
Cigarettes	20	21	19.6	22	12 15	20	19	16	17 (12)	21	18	16	17.5
Clothing and Footwear	20	6 21	19.6	22	15	20	6 19	16	17 (12)	0 21	18 (13)	16	0 17.5
Non-telecom utilities (i.e. home heating)	20	21	19.6	22	6 12	10 20	6 19	16	5 (4) 12 (8) 17 (12)	12.5	18 (13)	16	5 17.5
Telecoms	Ex 20	21	19.6	22	15	10 20	19	16	17 (12)	21	18 (13)	16	17.5
Medical Practitioner fees (i.e. doctors and dentists)	Ex	Ex	Ex	Ex	Ex 3	Ex	Ex	Ex	Ex 5 (4)	Ex	Ex	Ex 7	Ex

Motor Cars	20	6 21	19.6	22	15	20	19	16	17 (12)	21	18 (13)	4 16	17.5
Public transport	10	6	5.5	8	3	Ex 10 20	6	7 16	5 (4)	Ex	8 (6)	7	0
Motor fuel	20	21	19.6	22	12 15	20	19	16	17 (12)	21	18 (13)	16	17.5
Entertainment (e.g. cinemas, theatre and concert admission)	Ex 10 20	Ex 6 21	5.5 19.6	8	Ex 15	10	6	Ex 16	5 (4) 17 (12)	Ex 12.5 21	Ex 4 (3) 18 (13)	Ex 7 16	17.5
Newspapers and Magazines	10 20	0 6	2.1 19.6	0	3	4	6 19	7	5 (4) 17 (12)	12.5	4 (3)	4 16	0
Restaurants and Cafes	20	6 21	19.6	22	15	4 10	19	16	12 (8)	12.5 21	8 (6)	7	17.5
Hotel accommodation	20	6	5.5	8	3	10	6	16	5 (4)	12.5	8 (6)	4 7 16	17.5