



Consumer Pricing Report 2003

A PricewaterhouseCoopers Report to Forfás

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Table of Contents

Foreword

Executive Summary i

Chapter 1 Introduction 1

Chapter 2 Consumer Prices in EU15 Perspective 2

2.1 Introduction 3

2.2 Eurostat/PPP 4

2.3 Mercer Human Resource Consulting 8

2.4 European Commission 15

Chapter 3 Analysis of National Drivers of Inflation 18

3.1 Introduction 20

3.2 Consumer Price Inflation (CPI), 2000 to 2003 20

Chapter 4 Analysis of COICOP Level 1 Drivers of Inflation 33

4.1 Introduction 34

4.2 Pubs & Restaurants 34

4.3 Alcohol & Tobacco (Off-Licence) 37

4.4 Miscellaneous Goods & Services 39

4.5 Recreation & Culture 43

4.6 Health 45

Annex 1 Methodological Issues 48

Annex 2 European Rates of Consumer Price Inflation 2002 53

Annex 3 Traded and Non-Traded Classification 56

Annex 4 Abbreviations 58

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Foreword

Over the last decade the Irish economy has undergone a rapid transformation, yielding rates of incomes and employment growth that are the envy of many of our European neighbours. The rapid and consistent implementation of pro-competitive economic policies during this period, combined with other favourable economic and social factors, allowed us to rise quickly through global competitiveness rankings.

However, our extraordinary recent economic success has resulted in a new set of challenges for policy-makers, and swift and decisive action will once again be necessary if we are to protect our competitive position on the international stage, and ensure that the current economic success story is maintained over the next decade. It is clear given the development of a more open global economy, that reinforcing our competitiveness is the most urgent challenge facing the economy at this time.

A key area of competitiveness is the price environment. This report confirms that rapid price increases across the Irish economy continued in 2002, resulting in further divergence between price levels in Ireland and those of our European trading partners. The report identifies several key areas where both price levels and rates of increase are running well ahead of European average, and reveals the main drivers of current inflation.

Ireland cannot, and should not, attempt to compete in global markets on the basis of low prices and wages. However if the widening gap between prices here and elsewhere in Europe is left unchecked, then our competitive position will be exposed to further risks, particularly across those sectors which are dependent on trade. An overshoot of prices would also threaten our continued ability to attract foreign investment and to develop Ireland as a centre for research and development.

Strengthening Ireland's competitive advantage requires action to eliminate the inflation and price differential between Ireland and our trading partners, and also improvements to infrastructure, regulation, taxation, education, innovation, entrepreneurship and management development, aimed at raising the productivity of Irish industry.

The key findings of this report have been used by the National Competitiveness Council, whose Secretariat is provided by Forfás, to bring forward a set of recommendations to address the inflation differential between Ireland and the European average. I strongly welcome the NCC Statement on Inflation and support its recommendations.

Achieving an inflation rate equal to or below the European average of two per cent, together with the continuation of other productivity-enhancing policies, will underpin our short-term economic performance and strengthen the competitive foundations on which our future economic success will depend.

Martin Cronin
Chief Executive
Forfás

Executive Summary

Introduction

This study was commissioned by Forfás in response to growing concern, among policymakers about sustained high rates of consumer price inflation within the Irish economy. The study comprises two main elements: a comparative analysis of consumer prices in Ireland and other EU15 countries; and an analysis of the major product/service drivers of consumer price inflation in Ireland in recent years. It represents a partial update of a study undertaken by PricewaterhouseCoopers (PwC) for Forfás in 2002 on consumer prices in Ireland¹.

Comparative Price Analysis

Research commissioned by Forfás in the aftermath of the € changeover in 2002 found Ireland to be the second most expensive country for consumer goods/services in the eurozone in 2001, after Finland. The intervening period has witnessed no real abatement in rates of consumer price inflation in Ireland, which remain anomalous in an EU15 context. The implication of this sustained inflation differential between Ireland and the EU15 is a further deterioration in the affordability of goods/services in Ireland vis-à-vis our European neighbours. PwC projections to end 2002 indicate that Ireland has almost reached price parity with Finland, and looks set to emerge as the most expensive country within the **eurozone** in the very near future if current inflation differentials between the eurozone's two most expensive countries persist (see Table 1 – shading indicates a more expensive country).

Table 1: Index of Affordability of Consumer Goods/ Services (IRL =100)

	2002 (e)	2001	1999	1995
B	85	87	99	127
FIN	101	103	117	143
D	87	90	101	134
GR	72	72	80	91
E	72	73	81	97
F	85	88	102	129
I	80	81	83	93
LUX	86	88	95	123
NL	87	88	94	124
A	84	87	98	134
P	65	66	71	85
non-eurozone				
DK	n.a.	111	n.a.	n.a.
S	n.a.	108	n.a.	n.a.
UK	n.a.	102	n.a.	n.a.

Source: Eurostat (PwC Derived/ 2002 = PwC Projection)

¹ see: <http://www.forfas.ie/publications/cc-pricing-eurozone/PWC-Forfas.pdf>

Widening the net to include the non-eurozone **EU15** economies, i.e. Denmark, Sweden and the UK, Ireland is found to be the fifth most expensive country in the EU15 in 2001 – the three Scandinavian countries and the UK being more expensive than Ireland in this year. While this ranking is consistent with the finding for 2000, the large consumer price inflation differential that has existed between the UK and Ireland for some time suggests that consumer prices in Ireland may now be equal to those in the UK. It is therefore likely that by 2003 Ireland will be the 3rd most expensive country in the EU15.

An analysis of the relative affordability of product/service groups within the EMU12 in 2002 found Ireland to be particularly expensive for tobacco (1 = 1st most expensive), pubs and restaurants (1), food and non-alcoholic beverages (1), residential rents (1), off-licence alcohol (2), and recreational and cultural services (2). By contrast, Ireland was found to be relatively price competitive for clothing & footwear (11), communications (9) and household utilities (7).

Consumer Price Inflation in Ireland – Macro Contributors

Table 2 presents summary inflation statistics for the traded and the non-traded sectors of the Irish economy, as well as for those products/services, the prices of which are subject to some level of direct Government influence.

Table 2 Summary Inflation Statistics for Traded/Non Traded and Government-influenced Categories

	% of Expenditure	12 Month (end January 2003)		36 Month (end January 2003)	
		Inflation Rate	% Contribution to National Inflation	Inflation Rate (Annualised)	% Contribution to National Inflation
Traded/Non-traded					
Traded	48%	3%	33%	3%	27%
Non-Traded	52%	6%	67%	7%	73%
Government-Influenced	28%	10%	59%	7%	35%
Government-provided	2%	15%	7%	11%	5%
Government-regulated	6%	9%	11%	7%	8%
Excisable products (all)	19%	10%	41%	6%	23%
- Excisable products (Budget 2001/2002/2003 Impacted Only)	12%	12%	30%	6%	14%
- Excisable products (Other)	7%	8%	11%	7%	9%
All Consumer Goods/Services	100%	4.8%	100%	5.2%	100%

Source: CSO (PwC Derived)

As is widely known to be the case, Table 2 shows that the **non-traded** sector of the Irish economy has been the primary driver of consumer price inflation in recent years. Recent months have, however, witnessed some convergence of rates of inflation in the non-traded sector of the economy on those of the traded, in spite of the steady appreciation of the € against the currencies of Ireland's major trading partners, i.e. the US and the UK.

For the purposes of our analysis, the “**government-influenced**” category of consumer expenditure was considered to incorporate three primary consumer product/service types, namely:

- services provided directly by the public sector, e.g. refuse/hospital services;
- products/services, the price of which is regulated by Government, e.g. certain utilities;
- excisable products, i.e. fuel, alcohol and tobacco.

An analysis of inflation rates within each of these categories of expenditure initially found that “government-influenced” products/services accounted for close to 60% of the increase in consumer prices in the 12 months to end January 2003, compared with an expenditure share of less than 30%, i.e. the rate of inflation in this category of spend was more than twice the national average. However this figure must be used with caution.

This summary analysis of the contribution of “government-influenced” products/services to national inflation, however, **overstates** the role of the Government – to the extent that price developments in excisable products may be market-driven, as opposed to attributable to a change in the **excise** regulation. This is evidenced in the fact that those products (e.g. beer) that were not subject to any excise increase for the three-year period under review recorded rates of inflation considerably in excess of the national average (see Table 2). Moreover, a detailed analysis of developments in the price of products that have been subject to an excise change in the past three years indicates that, in certain cases, a change in the excise regulation typically coincides with a significant, entirely supplier-determined, price increase, i.e. increase over-and-above impact of excise.

In conclusion, the analysis contained in Table 2 lends support to estimates that Government accounted for somewhere between 30% and 40% of consumer price inflation in the year ended January 2003 (Central Bank Spring Bulletin estimate is around 1.5%). The Budget 2003 increase of 50c on the price of packet of 20 cigarettes accounted for approximately 13% of this contribution.

Finally, an analysis of the contribution to national inflation made by the 12 major categories of consumer expenditure (i.e. **COICOP 1²**) for the 12 month period to end January 2003 found that four expenditure categories accounted for almost 80% of national inflation. These are: pubs and restaurants (29%); [off-licence] alcoholic beverages and tobacco (19%); transport (16%); and miscellaneous goods and services (15%). The strong role played by the non-traded sector and/or excisable goods, highlighted in Table 2, is apparent.

Product/Service-level Drivers of Consumer Price Inflation

The terms of reference for this study also required that the consultants identify those product/service categories (COICOP 2, 3 & 4) that have been most noteworthy in inflation terms over the past 12 months. Two measures of inflation were applied in this analysis, namely:

- rate of price inflation in the year to end January 2003;
- contribution to national inflation in the year to end January 2003.

² The term COICOP (Classification of Individual Consumption by Purpose) refers to categories of consumer goods/expenditure, with the major categories, of which there are twelve, referred to as “COICOP 1” (e.g. food and non-alcoholic beverages). COICOP 2 (e.g. food) is the next level of aggregation, with COICOP 4 (e.g. bread) being the highest level of disaggregation considered for the purposes of this analysis.

COICOP 2 product/service categories that recorded the highest rate of inflation in the year under review were: financial services (23%); hospital services (19%); water, refuse and related services (19%); tobacco (14%); and third, second and primary-level education (12%). Consistent with the analysis contained in Table 2, this analysis points to unusually high rates of inflation in the price of Government-influenced products/services – the large increase in financial services largely attributable to Budget 2003 changes to stamp duty charges on ATM, Laser and Credit Cards.

The second measure of inflation, i.e. contribution to inflation in the year ended January 2003, has regard to the rate of inflation as well as the share of expenditure accounted for by a given product service/category, i.e. a moderate rate of inflation coupled with a large share of consumer expenditure may suffice for inclusion on the list. Product/service categories found to have contributed most significantly to national inflation in the year ended January 2003 were: catering services/pubs (26%); tobacco (13%); insurance (10%); and the operation of personal transport equipment (9%) – all of which recorded rates of price inflation in excess of the national average. Again, a predominance of the non-traded sector and excisable products is in evidence.

Finally, the consultants were required to identify the major drivers of inflation in a selection of COICOP level 1 categories of expenditure. Findings are presented in Table 3.

Table 3: Major Drivers of Inflation, Selected COICOPs [Level 1], Year to End January 2003

	COICOP Level	Rate of Inflation	% Contribution to National Inflation
Pubs & Restaurants	1	8%	29%
Restaurants, Cafes & Licensed Premises	3	8%	26%
Licensed Premises	4	n.a.	17%
Alcohol & Tobacco [Off Licence]	1	12%	19%
Tobacco	3	14%	13%
Miscellaneous Goods & Services	1	8%	15%
Insurance	2	10%	10%
Health Insurance	3	17%	5%
Recreation & Culture	1	5%	10%
Cultural Services	3	9%	4%
Television Services	4	19%	3%
Health	1	8%	4%
Hospital Services	2	19%	3%

Source: CSO (PWC Derived)

Again, Table 3 points to a predominance of excisable products – particularly alcohol & tobacco – and government provided (e.g. hospital services) or regulated (e.g. television services/RTE Licence Fee) services as the most important drivers of inflation in those categories of consumer expenditure that have contributed significantly to national inflation in recent years.

Chapter 1 Introduction

This study was commissioned by Forfás following concerns that high price levels and costs were now posing problems for the competitiveness of Irish industry, particularly in efforts to develop industry across the island. The report exhibits and analyses key pricing problems which will lead to a better understanding of this key economic issue.

The purpose of the assignment is two-fold, namely: to determine the implications of sustained high rates of consumer price inflation in Ireland for the affordability of consumer goods/services relative to our European neighbours; and to identify the relative contributions of the various categories of consumer good/service to overall consumer price inflation in recent years.

The comparative price assessment will provide an indication of the cost, in national competitiveness terms, of relatively high rates of consumer price inflation, while the analysis of inflation drivers will provide policymakers with an improved basis for the development of initiatives aimed at countering high levels of inflation going forward.

This report represents a partial update of a report commissioned by Forfás to PricewaterhouseCoopers in March 2002ⁱ – which assessed the relative affordability of consumer goods and services in Ireland vis-à-vis other eurozone countries, and examined the extent to which claims that there were unusual consumer price developments during the € changeover period had any basis in reality.

The remainder of this report comprises four chapters.

The next chapter presents secondary research findings regarding the relative price of consumer goods/services in Ireland, while Chapter 3 presents an analysis of the major drivers of consumer price inflation in Ireland. Chapter 4 presents national and international inflation data for a number of consumer good/service categories – selected on the basis of having made a particularly significant contribution to national inflation in recent years, while Chapter 5 presents a summary of key report findings.

Chapter 2 Consumer Prices in EU15 Perspective

Summary of Chapter Findings

This chapter presents an analysis of secondary research findings on the affordability of consumer goods/services in Ireland relative to a selection of other European countries. Key findings are the following:

- Ireland is a relatively expensive country for consumer goods/services – ranking second most expensive in the **eurozone** for a nationally representative sample of consumer goods/services in 2002 (PricewaterhouseCoopers estimate) – marginally behind Finland (+ 1% higher);
- this second ranking is consistent with Ireland’s ranking in 2001, although Ireland is likely to reach price parity in the very near future, if current inflation differentials between the two countries persist. In other words, it is very likely that Ireland will become the most expensive country in the eurozone during 2003;
- in a wider **EU15** context, Ireland was found to be the fifth most expensive country in which to purchase a nationally representative sample of consumer goods/services in 2001 – after the UK (+2% higher), Finland (+3%), Sweden (+8%) and Denmark (+11%);
- Ireland’s fifth ranking in 2001 is consistent with findings for 2000 – notwithstanding the fact that the rate of consumer price inflation in Ireland was the highest in the EU15 for the period in question;
- this apparent contradiction can be attributed to the fact that Ireland has moved away from that group of EU15 countries with relatively low consumer price levels, and is playing “catch up” with a small number of countries where price levels have traditionally been high in an EU15 context;
- it is, however, likely that this “catch up” process may be approaching an end – with Ireland likely to reach consumer price parity with the UK as well as Finland in the near future, if Ireland’s rate of consumer price inflation continues to deviate so sharply from that of the EU15’s traditionally high-price economies;
- in other words, it is likely that Ireland will become the third most expensive country in the EU15 if current inflation differentials between Ireland and the UK and Finland persist throughout 2003;
- there is a broad consistency in the profile of **goods/services** found to be particularly expensive in Ireland in 2001 and 2002 – namely, food and non-food consumables, residential rents, alcohol & tobacco, and pubs & restaurants.

2.1 Introduction

This chapter presents findings on the cost of consumer goods and services in Ireland relative to other European countries. Findings presented in this chapter are essentially an update of those contained in Chapter 3 of the 2002 Forfás study on consumer prices, albeit extended to incorporate, as possible, non-eurozone economies, i.e. the UK, Sweden and Denmark. As detailed in the 2002 study, international comparative price studies are subject to a series of methodological difficulties (see Annex 1).

A general methodological issue that merits re-mention here is the distinction between representative and non-representative comparative price studies. Representative price studies seek to mirror the precise consumption patterns of the residents of that country in which consumer prices are being measured, while non-representative studies seek to measure the price of replicating a country-specific consumption pattern in another country. To reflect the fact that both approaches have their respective strengthsⁱⁱ, and in common with the original study, findings from representative (i.e. Eurostat) and non-representative (e.g. Mercer) price surveys are presented in the remainder of this chapter. An overview of the three sources of comparative price data used in this chapter is presented in Box 1.

Box 1 Introduction to Sources of Comparative Price Data

Eurostat/PPPⁱⁱⁱ-derived 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 exchange rates. Eurostat/PPP-derived comparative price data are representative of consumption in the country in which prices are measured, i.e. the selection of products/services reflects national preferences, as does the weighting of the different categories of consumer expenditure.

Mercer HR Consulting collect international comparative price data on a bi-annual basis to assist clients in setting remuneration levels for employees being relocated overseas. Reflecting this focus, the comparative price data is not representative, i.e. the survey is based on a relatively standard set of goods/services, and weightings to reflect national consumption patterns are typically not applied. This distinguishes this source of comparative price data from the foregoing, i.e. Eurostat PPP, which is nationally representative. For methodological reasons, Mercer comparative price data is presented for eurozone countries only.

While the **European Commission** produces a series of comparative price studies, limited coverage of Ireland and other methodological issues mean that just two are directly relevant to this study. These are the European Commission Annual Cost of Living Survey and DG IV (Competition) data on the comparative price of motor vehicles. The Annual Cost of Living Survey is derived from Eurostat PPP data, but is not nationally representative, i.e. product/service weightings reflect typical consumption patterns of Commission employees, reflecting the purpose of the exercise which is to determine remuneration levels for Commission employees placed outside of Belgium. Moreover, comparative price findings are presented for a selection of cities as opposed to being grossed up to country level. Comparative price data on motor vehicles are produced annually by DG IV.

The remainder of this chapter comprises three sections, which describe comparative price data from Eurostat (PPP), Mercer HR Consulting and the European Commission respectively.

2.2 Eurostat/PPP

Table 2.1 shows the development of consumer prices in Ireland relative to the EMU12 between 1995 and 2002 – shading indicating that Ireland is among the six most expensive countries. It should be noted that rankings for 2002 are PwC estimates – derived from the application of full-year 2002 rates of consumer price inflation (HICP) for each of the eurozone countries to 2001 Eurostat/PPP comparative price indices.

Table 2.1 Consumer Prices in Ireland in Eurozone Perspective (1 = Most Expensive in Eurozone)

	2002 (e)	2001	1999	1997	1995
All Private Household Consumption	2	2	4	7	8
Food & non-alcoholic beverages					
Food	1	2	6	8	9
- Bread and cereals	5	5	5	9	11
- Meat	7	7	8	9	9
- Fish	6	6	11	10	12
- Milk, cheese and eggs	1	1	1	1	3
- Oils and fats	5	6	11	8	9
- Fruits, vegetables, potatoes	1	1	3	5	8
- Other food	2	2	6	10	12
Non-alcoholic beverages	1	2	4	1	2
Off-Licence Alcohol & Tobacco					
- Alcoholic beverages	2	2	2	1	2
- Tobacco	1	1	1	1	2
Clothing & footwear	11	11	12	8	10
Gross rents, fuel & power	1	1	4	8	11
- Rentals for housing	1	1	4	8	11
- Electricity, gas and other fuels	7	7	7	9	10
Furnishings, equipment, maintenance	3	3	6	6	9
Health	3	4	7	7	10
Transport	4	2	2	n.a.	n.a.
Communications	9	8	6	3	2
Recreation & culture	2	2	5	n.a.	n.a.
Education	5	6	9	9	8
Pubs & Restaurants	1	1	2	n.a.	n.a.
Miscellaneous goods & services	5	7	7	7	6

Source: Eurostat (PwC Derived/2002 is PwC Estimate)

Key findings from Table 2.1 are the following:

- Ireland was the 2nd most expensive country in the EMU12 for all consumer goods and services in 2002 and 2001. This compares with a rank of 8 in 1995;
- in 2002, Ireland is found to be particularly expensive for food (1), non-alcoholic beverages (1), alcoholic beverages (2), tobacco (1), residential rents (1), pubs & restaurants (1), and recreational and cultural services/goods (2);
- by contrast, Ireland was found to be relatively cost-competitive for clothing and footwear (11), communications (9) and household utilities (7);

Ireland's ascent through the ranks of Europe's most expensive has decelerated somewhat in recent years – notwithstanding a rate of consumer price inflation that has deviated significantly from the EMU12 average. This apparent anomaly is explained by the fact that Ireland has now moved out of the cluster of countries with relatively low consumer price levels and is currently playing "catch-up" with Finland, where consumer price levels have traditionally been very high relative to most eurozone countries. This is evidenced in Figure 2.1, which shows an index of consumer price levels across the EMU12 in 2002.

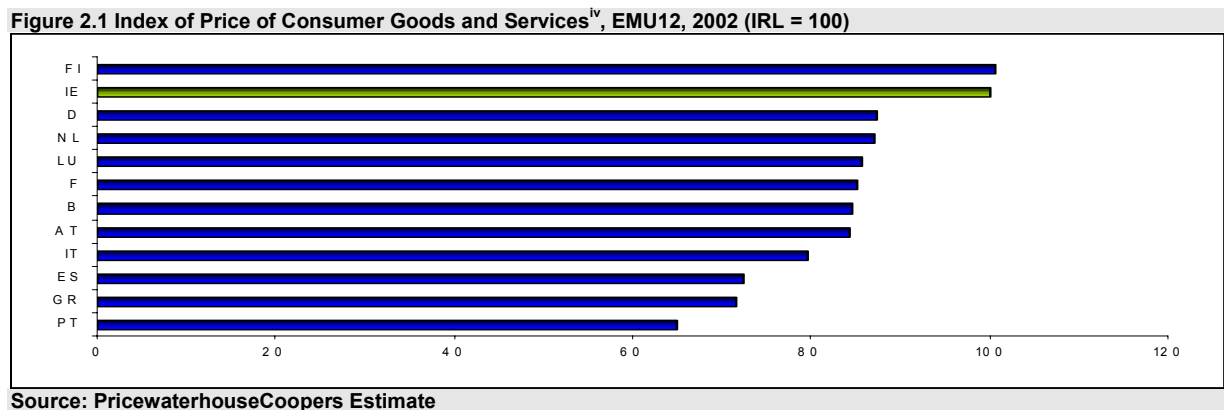


Figure 2.1 suggests that this "catch-up" process may now be approaching an end – consumer price levels in Ireland having just reached parity with Finland's at end 2002.

Table 2.2 presents a more detailed look at price differentials between eurozone countries by broad category of consumer expenditure at end 2002, with shading indicating a country that is more expensive than Ireland. Again, it should be noted that the data presented in Table 2.2 are PricewaterhouseCoopers estimates, based on the application of 2002 Eurostat inflation data for the eurozone countries to 2001 Eurostat/PPP comparative price indices.

Table 2.2 Index of Price of Consumer Goods/Services, EMU12, 2002 (IRL = 100)

	PT	GR	ES	IT	AT	B	F	LU	NL	D	FI
All Private Household Consumption	65	72	72	80	84	85	85	86	87	87	101
Food and non-alcoholic beverages	75	75	72	86	89	86	96	95	87	88	99
Food	75	75	73	88	91	87	98	98	88	89	99
Non-alcoholic beverages	82	81	56	75	71	77	74	74	81	85	99
Off-Licence Alcohol and Tobacco											
- Alcoholic beverages	58	59	39	53	53	52	52	53	58	47	112
- Tobacco	40	48	42	52	61	58	68	46	57	59	79
Clothing and footwear	94	130	124	117	126	129	110	142	125	126	128
Gross rents, fuel and power	31	53	54	59	64	75	68	86	81	85	83
- Rentals for housing	19	48	46	43	49	63	64	79	68	69	74
- Electricity, gas and other fuels	118	71	90	149	114	104	66	88	123	113	94
Furnishings & Maintenance	79	83	89	88	96	93	99	101	107	98	95
Health	87	n.a.	79	89	96	68	76	103	62	78	105
Transport	91	69	78	84	100	87	86	80	103	96	111
Communications	115	125	103	120	104	113	117	73	89	95	109
Recreation and culture	79	80	83	91	95	91	91	90	87	91	118
Education	69	41	50	82	105	87	98	128	85	106	115
Pubs and Restaurants	66	87	76	81	76	86	83	80	74	73	96
Miscellaneous goods and services	74	84	86	94	101	99	114	82	104	98	124

Source: PricewaterhouseCoopers Estimate

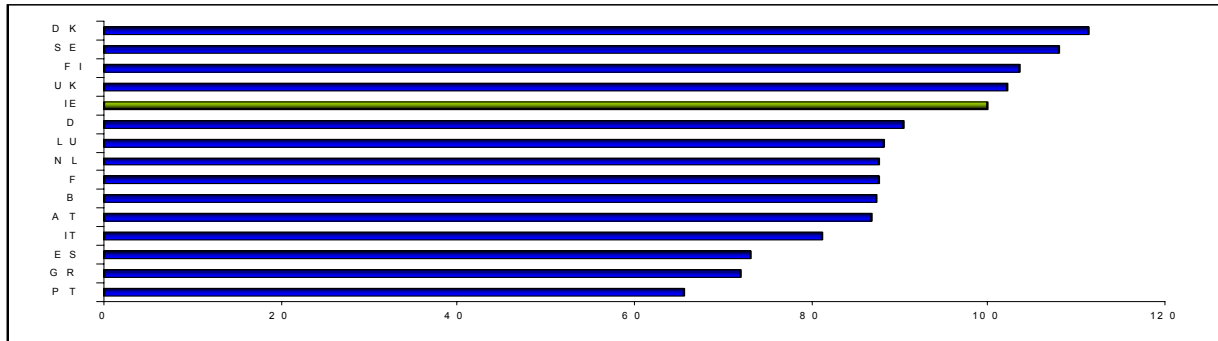
The information contained in Table 2.2 supplements that contained in Table 2.1 by showing the scale of the price differential with other countries and indicating the countries that are more expensive than Ireland for a given consumer good/service category.

Particularly noteworthy are the very expensive nature of alcohol, tobacco and residential rents in Ireland. Data contained in Table 2.2, for example, shows that the cost of residential rents in Portugal is a fifth of the respective cost in Ireland. Similarly, off-licence alcohol and tobacco is more than 60% cheaper in Spain than in Ireland. Price differentials are less pronounced in the opposite direction (i.e. countries that are more expensive than Ireland), with a small number of notable exceptions, e.g. the price of clothing and footwear is 42% higher in Luxembourg than in Ireland.

As was highlighted in the 2002 Forfás report on the relative affordability of consumer goods/services in Ireland, the three non-eurozone EU15 members, i.e. Denmark, Sweden and the UK, have been traditionally the most expensive European countries in which to buy consumer goods and services. Therefore, the focus on the eurozone in the foregoing tables/diagrams may act to overstate the relative affordability of consumer goods/services in a wider EU15 context. This contention is borne out in Figure 2.2, which shows the relative

price of a basket of consumer goods/services in 2001 for all EU15 countries. Regrettably data limitations mean that comparative data on an EU15 basis is only available as of yet for 2001.

Figure 2.2 Index of Price of Consumer Goods and Services, EU15, 2001 (IRL = 100)



Source: Eurostat (PwC Derived)

In 2001, Ireland was the fifth most expensive country in the EU15 in which to buy consumer goods/services – with the UK, Finland, Sweden and Denmark found to be more expensive. This fifth ranking compares with a ranking of 11 in 1995. While it is not possible to produce 2002 estimates for non-eurozone countries, a review of inflation rates for the UK, Denmark and Sweden* for the full year to end 2002 suggest that Ireland may have, or will soon have, reached consumer price parity with the UK, as well as Finland. In other words, if current (December 2003) inflation differentials with the UK and Finland persist through 2003, Ireland is likely to become the third most expensive country in the EU15.

* *Annex 2 provides analysis of recent rates of consumer prices inflation in an EU15 perspective.*

2.3 Mercer Human Resource Consulting

Alcohol & Tobacco [Off-Licence]

A relatively high level of price divergence between eurozone countries is, however, in evidence in that category of consumer expenditure that is most heavily influenced by Government policy on indirect taxation, i.e. alcohol and tobacco. Ireland was the second most expensive country in which to purchase a selection of alcohol and tobacco products in 2002 (see Table 2.3) - consistent with the finding for 2001.

Table 2.3 Relative Cost of Off-Licence Alcohol & Tobacco, 2002 (1 = most expensive in eurozone)

	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	4
Cigarettes (pack of 20 cigarettes)	1	1	1
Total Alcohol and Tobacco	2	2	2

Source: Mercer HR Consulting (PwC Derived)

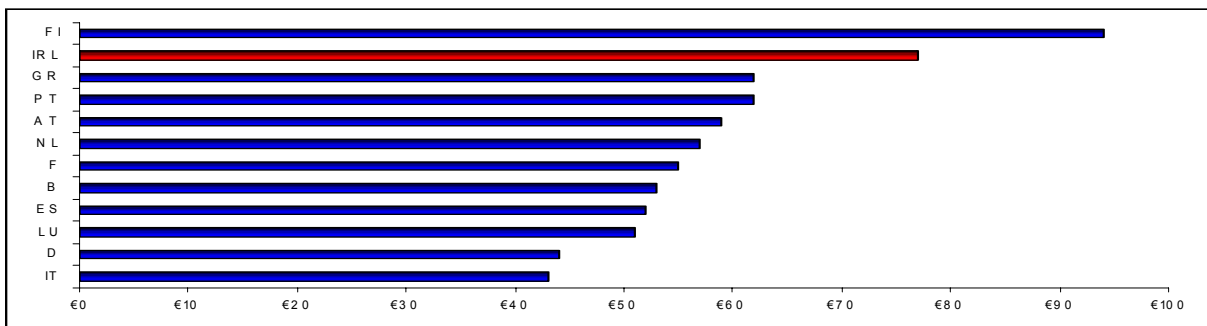
Marked differences in the price of alcohol and tobacco products are evidenced in Table 2.4 and Figure 2.3, which show the absolute cost of the goods described in Table 2.3 for the eurozone economies – shading indicating a country that is more expensive than Ireland.

Table 2.4 Actual € Costs of Basket of Off-Licence Alcohol & Tobacco, Eurozone Members, 2002

€	IRL	PT	GR	ES	IT	LU	AT	B	NL	D	F	FI
High	€86	€68	€77	€55	€52	€58	€69	€65	€66	€54	€63	€94
Medium	€77	€62	€62	€52	€43	€51	€59	€53	€57	€44	€55	€94
Low	€72	€56	€51	€50	€33	€44	€52	€45	€46	€39	€47	€87

Source: Mercer HR Consulting (PwC Derived)

Figure 2.3 Cost of Basket of Off-Licence Alcohol & Tobacco (Mid-priced Outlets), Eurozone Members, 2002



Source: Mercer HR Consulting (PwC Derived)

At €77 (mid-priced outlet), the cost of this basket of goods from a mid-priced outlet is €34 higher in Ireland than in Italy, €33 higher than in Germany and €26 higher than in Luxembourg. By contrast, residents of Finland paid €17 more for this basket of goods (mid-priced) in 2002 than residents of Ireland.

Pubs & Restaurants

Table 2.5 presents 2002 comparative price data for a selection of goods/services falling into the “pubs & restaurants” category of consumer expenditure – shading indicating a country that is more expensive than Ireland.

Table 2.5 Actual € Prices in Pubs and Restaurants (Mid-priced Outlets), Eurozone, 2002

€	IRL	PT	GR	ES	IT	LU	AT	B	NL	D	F	FI
3 Course Dinner for Two (High Class Restaurant)	€ 175.0	€ 110.0	€ 115.0	€ 193.8	€ 145.0	€ 157.5	€ 190.0	€ 132.5	€ 130.0	€ 159.5	€ 175.0	€ 135.0
1 Cup of Coffee	€ 2.80	€ 1.88	€ 3.40	€ 1.77	€ 2.40	€ 1.70	€ 3.30	€ 2.00	€ 2.10	€ 2.57	€ 1.85	€ 3.00
Fast Food Hamburger Menu	€ 6.50	€ 3.75	€ 5.45	€ 5.50	€ 4.60	€ 5.20	€ 6.40	€ 5.22	€ 6.90	€ 4.60	€ 5.63	€ 5.00
1 Glass of Mineral Water	€ 3.50	€ 1.75	€ 2.95	€ 1.80	€ 2.05	€ 1.80	€ 2.90	€ 2.30	€ 1.75	€ 2.79	€ 3.60	€ 3.00
1 Glass of Heineken beer ^v	€ 3.50	€ 2.50	€ 4.50	€ 2.63	€ 4.35	€ 2.25	€ 4.10	€ 2.85	€ 2.10	€ 2.70	€ 5.50	€ 5.00
Index (IRL = 100)	IRL	PT	GR	ES	IT	LU	AT	B	NL	D	F	FI
3 Course Dinner for Two	100	63	66	111	83	90	109	76	74	91	100	77
1 Cup of Coffee	100	67	121	63	86	61	118	71	75	92	66	107
Fast Food Hamburger Menu	100	58	84	85	71	80	98	80	106	71	87	77
1 Glass of Mineral Water	100	50	84	51	59	51	83	66	50	80	103	86
1 Glass of Heineken beer	100	71	129	75	124	64	117	81	60	77	157	143

Source: Mercer HR Consulting (PwC Derived)

Ireland typically ranks second or third most expensive country in the eurozone for the selection of “pubs & restaurants” expenditure items included in Table 2.5 – somewhat lower than the respective Eurostat ranking presented in the previous section (i.e. joint first most expensive country with Finland). The relatively low cost of a glass of Heineken beer, noteworthy in view of the relatively high rates of excise duty on alcohol in Ireland, may be attributed to volume-related factors – Heineken being the lager of choice for a large share of the Irish population, who’s “pubs & restaurants” consumption patterns are relatively heavily skewed in favour of alcohol/bars.

Medical Goods & Services

Table 2.6 presents comparative price data for a small selection of medical goods and services, with shading indicating a country that is more expensive than Ireland.

Table 2.6 Actual € Cost of Selected Medical Services/Products, Euro-zone Members, 2002

€	IRL	PT	GR	ES	IT	LU	AT	B	NL	D	F	FI
Antibiotics, Augmentin 500, box of 12	€20.5	€12.0	€6.2	€6.6	€15.8	€14.5	€15.6	€14.7	€13.9	€54.7	€11.1	€16.4
Private doctor, General Practitioner 30 mns	€38.5	€50.0	€47.0	€83.0	€86.3	€32.0	€75.0	€20.8	€28.3	€45.5	€30.0	€51.0
Box of 20 band-aids	€2.9	€1.5	€1.9	€2.1	€2.1	€1.8	€2.9	€3.1	€2.4	€2.1	€2.8	€2.3
Cough & throat relief, box of 20	€3.5	€3.1	€1.8	€5.8	€6.6	€3.7	€7.7	€2.3	€1.8	€3.5	€4.1	€3.7
IRL = 100	IRL	PT	GR	ES	IT	LU	AT	B	NL	D	F	FI
Antibiotics, Augmentin 500, box of 12	100	59	30	32	77	71	76	72	68	267	54	80
Private doctor, General Practitioner 30 mns	100	130	122	216	224	83	195	54	73	118	78	132
Box of 20 band-aids	100	51	66	72	73	60	98	105	82	72	96	80
Cough & throat relief, box of 20	100	89	53	167	189	106	221	67	50	99	118	105

Source: Mercer HR Consulting (PwC Derived)

Table 2.6 findings regarding the relative affordability of a selection of medical products/services are mixed – Ireland being one of the most expensive country's in which to procure a box of band-aid (supply of which is supermarket dominated), and among the cheapest in which to visit a general practitioner. It should, however, be noted that the price of medical products/services is heavily influenced by national healthcare policies.

Food and Non-Food Consumables

Table 2.7 presents Mercer 2002 findings on the relative affordability of foodstuffs in Ireland vis-à-vis other eurozone members, in low-, mid- and high-priced food retail outlets, with shading indicating that Ireland is among the six most expensive eurozone countries for the product/service in question.

Table 2.7 Relative Cost of a Food Shopping List in Ireland, 2002 (1 = most expensive in eurozone)

	Low-priced Stores	Mid-priced Stores	High-priced Stores
Milk, pasteurised whole milk (1lt)	6	7	7
Butter, table quality (500 gr)	9	12	12
Eggs, large, grade A (12)	1	1	2
Bread, whole wheat sliced toast (1kg)	10	11	11
Rice, long grain type (1kg)	7	7	5
Sugar, granulated white (1kg)	4	7	9
Cornflakes, plain (375 gr)	9	10	11
Instant coffee (125 gr)	5	6	7
Tea in bags (25)	12	12	12
Coca Cola (1lt)	9	8	8
Mineral water, non-sparkling (1lt)	1	2	3
Corn oil, for frying (1lt)	1	1	5
Potatoes (1kg)	1	1	2
Onions (1kg)	1	2	2
Tomatoes (1kg)	3	1	3
Lettuce (1kg)	1	1	1
Oranges (1kg)	1	1	1
Apples (1kg)	1	4	5
Bananas (1kg)	4	8	8
Tin of Peas (250 gr)	9	4	5
Tin of Peaches, in halves (510 gr)	3	4	6
Beef, for roast beef (1kg)	5	7	8
Lamb Chops (1kg)	2	3	3
Ham, sliced cooked for sandwiches (1kg)	1	2	4
Bacon strips (1kg)	2	4	5
Fish, fresh salmon or sole filet (1kg)	9	7	6
Potato chips, natural flavour (150 gr)	1	1	1
Fine table salt (500gr)	1	1	1
Black pepper whole or ground (50 gr)	9	10	11
Biscuits, butter biscuits (200 gr)	1	1	1
Ketchup (340 gr)	7	8	11
Baby food, meat & vegetables (130 gr)	4	7	8
Instant soup, box of 4 individual (75 gr)	1	1	3
Total Food Retail	1	2	3

Source: Mercer HR Consulting (PwC Derived)

Table 2.7 shows that Ireland was the most expensive country in the eurozone for foodstuffs from low-priced outlets in 2002, the second most expensive for foodstuffs from mid-priced outlets and the third most expensive for foodstuffs from high-priced retail outlets. Notwithstanding methodological differences, these findings are broadly consistent with those of Eurostat – presented in the previous section - which showed Ireland to be the most expensive country in the eurozone for foodstuffs.

Table 2.8 presents Mercer 2002 findings regarding the relative affordability of non-food consumables in Ireland vis-à-vis other eurozone members, with shading indicating that Ireland is among the six most expensive eurozone countries.

Table 2.8 Relative Cost of Non-food Shopping List in Supermarkets in Ireland, 2002 (1 = most expensive in eurozone)

Retail (Non-food)	Low-priced stores	Mid-priced Stores	High-priced Stores
Retail (Non-Food)			
Laundry detergent normal (5 kg)	2	2	2
Dishwashing machine detergent (1kg)	4	4	8
Furniture polish (330 gr)	8	10	10
Light bulbs (2 bulbs, 60 watt)	2	3	4
Two batteries, AA size	2	5	3
Tampon (box of 40 /regular)	2	2	3
Toilet tissue (2 rolls)	3	1	2
Soap, 1 bath size (150 gr)	2	5	4
Shower gel (250 ml)	2	1	1
Hair shampoo 2 in 1 (200 ml)	1	1	1
Disposable diapers (box of 52)	7	8	8
Toothpaste, with fluoride (120 gr)	2	3	3
Deodorant, roll-on (50 ml)	11	12	12
Razor blades (5 blades)	1	1	1
Total Non-Food Consumables	2	2	2
Total Food and Non-Food Consumables	1	1	2

Source: Mercer HR Consulting (PwC Derived)

Broadly consistent with findings from the 2002 Forfás study, Ireland was found to be the second most expensive country in which to buy non-food consumables in the eurozone across all retail types. The 2002 finding for high-priced outlets represents a small deterioration on 2001 – when Ireland was the third most expensive country. Combining food and non-food consumables, it is found that Ireland was the most expensive country in which to buy a selection of supermarket goods in low- and mid-priced outlets in 2002. The respective ranking for high-priced outlets was second, after France.

Table 2.9 and Figure 2.4 supplement the foregoing by providing absolute price data for the basket of food and non-food consumables set out in Tables 2.7 and 2.8, and showing the price relativities that exist between Ireland and the other eurozone countries. Shading in Table 2.9 indicates that a country is more expensive than Ireland.

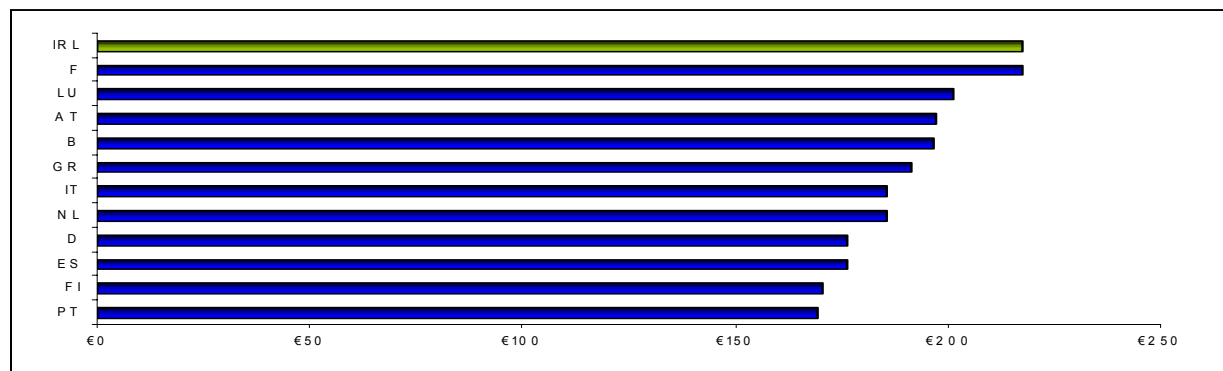
Table 2.9 Prices of a Basket of Supermarket Consumables, Eurozone, 2002

All Food Retail												
€	IRL	PT	GR	ES	IT	LU	AT	B	NL	D	F	FI
High	€ 162.7	€ 122.7	€ 112.5	€ 126.6	€ 139.8	€ 165.8	€ 154.8	€ 161.2	€ 139.4	€ 155.4	€ 175.0	€ 116.7
Medium	€ 137.8	€ 102.0	€ 95.5	€ 117.2	€ 119.3	€ 134.5	€ 124.7	€ 127.9	€ 117.6	€ 120.2	€ 146.2	€ 105.1
Low	€ 123.9	€ 92.4	€ 80.6	€ 111.1	€ 105.8	€ 100.9	€ 97.7	€ 104.1	€ 104.1	€ 96.3	€ 108.2	€ 89.0
IRL = 100	IRL	PT	GR	ES	IT	LU	AT	B	NL	D	F	FI
High	100	75	69	78	86	102	95	99	86	95	108	72
Medium	100	74	69	85	87	98	90	93	85	87	106	76
Low	100	75	65	90	85	81	79	84	84	78	87	72

All Retail Supermarkets												
€	IRL	PT	GR	ES	IT	LU	AT	B	NL	D	F	FI
High	€ 253.9	€ 201.7	€ 221.8	€ 192.3	€ 214.4	€ 245.3	€ 235.5	€ 244.1	€ 222.8	€ 224.0	€ 257.6	€ 190.0
Medium	€ 217.6	€ 169.1	€ 191.4	€ 176.6	€ 185.7	€ 201.2	€ 197.0	€ 196.5	€ 185.5	€ 176.6	€ 217.3	€ 170.7
Low	€ 190.7	€ 148.2	€ 161.0	€ 165.6	€ 161.9	€ 158.5	€ 155.3	€ 162.2	€ 156.5	€ 145.5	€ 163.6	€ 148.1
IRL = 100	IRL	PT	GR	ES	IT	LU	AT	B	NL	D	F	FI
High	100	79	87	76	84	97	93	96	88	88	101	75
Medium	100	78	88	81	85	92	91	90	85	81	100	78
Low	100	78	84	87	85	83	81	85	82	76	86	78

Source: Mercer HR Consulting (PwC Derived)

Figure 2.4 Actual € Cost of a Basket of Food and Non-Food Consumables, Mid-Priced Supermarkets, Eurozone, 2002



Source: Mercer HR Consulting (PwC Derived)

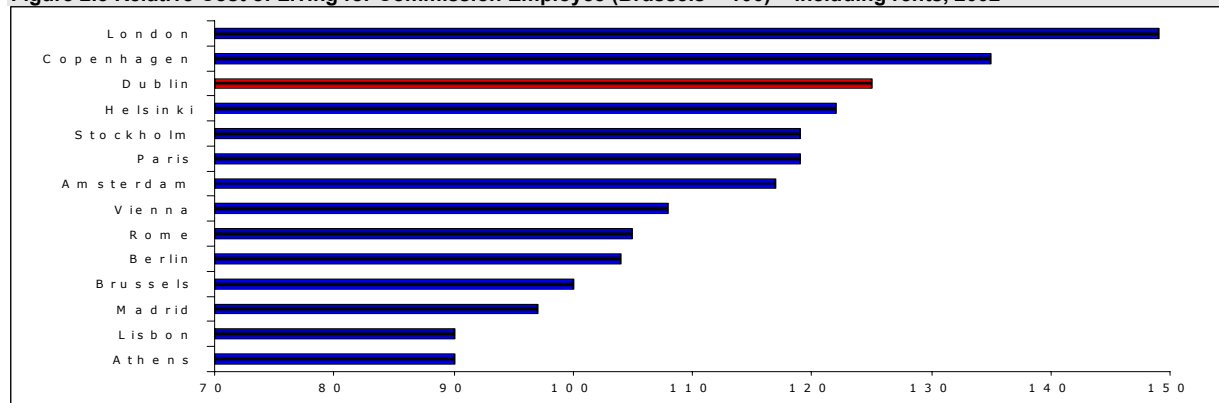
The estimated cost of the basket of food and non-food consumables, described in Tables 2.7 and 2.8, in mid-priced retail outlets in Ireland is €218. While this price is broadly in line with that paid by French consumers (€217), it is at least €17 more than that paid in any of the remaining eurozone countries. Relative to other categories of consumer goods/service, however, the price of food and non-food consumables across the eurozone operates within a relatively tight range (i.e. +/- 30%).

2.4 European Commission

Annual Cost of Living Survey

Figures 2.5 and 2.6 present findings from the Annual Cost of Living Survey for the year 2002, where the cost of funding the typical European Commission employee lifestyle in Brussels is equal to 100.

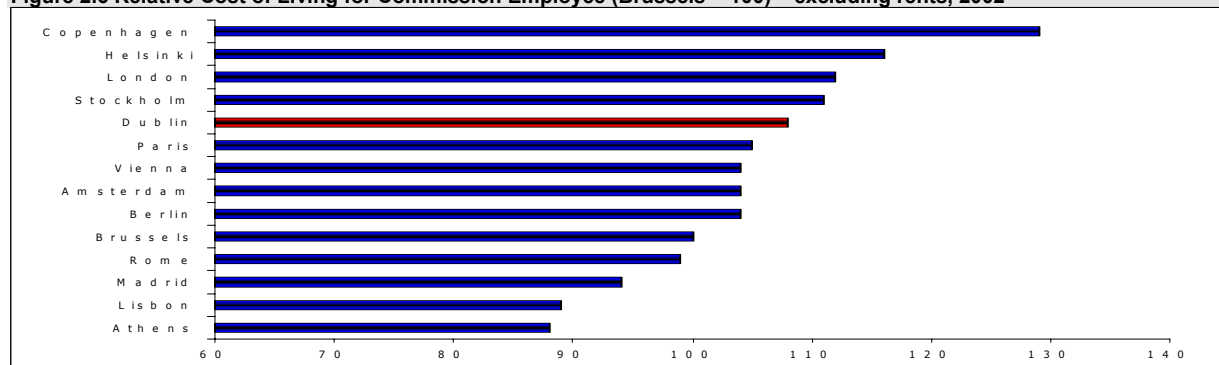
Figure 2.5 Relative Cost of Living for Commission Employee (Brussels = 100) – including rents, 2002



Source: European Commission

Figure 2.5 shows that the cost of funding the typical lifestyle of a European Commission employee (including rent) in a European capital in 2002 was highest in London (149), followed by Copenhagen (135) and then Dublin (125). Dublin's third ranking represents a small deterioration on the situation in 2001, when Dublin and Helsinki were found to be equally expensive (122). These findings are, however, heavily skewed by the inclusion of residential rents – the relative affordability of which has deteriorated sharply in Ireland in recent years. To control for this, Figure 2.6 presents European Commission Annual Cost of Living findings, excluding residential rents.

Figure 2.6 Relative Cost of Living for Commission Employee (Brussels = 100) – excluding rents, 2002



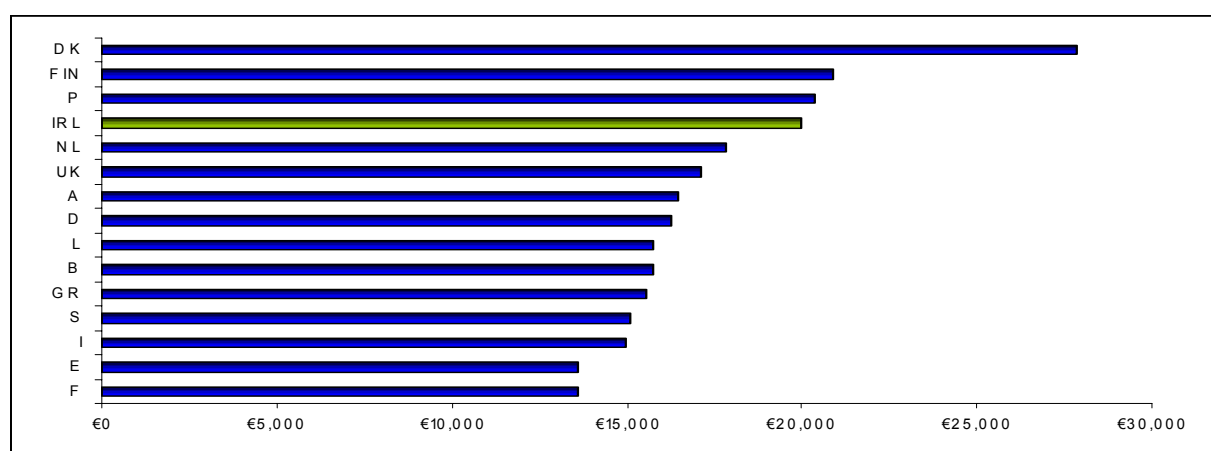
Source: European Commission

Excluding residential rents, Dublin is found to be the fifth most expensive European capital (108), after Copenhagen (129), Helsinki (116), London (112) and Stockholm (111). In 2001, Dublin was also found to be the fifth most expensive capital (104).

DG IV / Motor Vehicle Prices

Figure 2.7 and Table 2.10 present DG IV findings on the relative affordability of cars in the EU15 in 2002, with shading indicating a country more expensive than Ireland.

Figure 2.7 Average Purchase Cost of a Ford Focus (€), EU15, 2002



Source: European Commission

Table 2.10 Car Prices, EU15, 2002

Index - IRL = 100	IRL	A	B	D	E	F	FIN	GR	I	L	NL	P	DK	S	UK
Medium Segments															
Ford Focus	100	83	79	81	68	68	105	78	75	79	89	102	139	75	86
VW Golf	100	92	89	91	91	86	112	80	90	90	110	110	161	91	88
Opel Astra	100	94	78	81	73	74	116	78	71	74	96	101	158	91	81
Small Segment															
Peugeot 206	100	87	82	86	85	83	115	72	78	78	96	90	139	88	85
Toyota Yaris	100	79	74	73	76	65	113	78	68	70	88	83	122	74	83
Opel Corsa	100	83	78	77	83	82	114	78	73	74	91	86	137	82	80
Large Segments															
Audi A4	100	87	76	78	80	80	118	97	83	72	102	102	166	76	81
BMW 318i	100	84	75	75	78	77	111	97	78	74	91	100	156	74	79

Source: European Commission (PwC Derived)

Ireland counts among the most expensive countries in the EU15 in which to buy a new motor vehicle. Finland, Denmark and Portugal are the only countries found to be normally more expensive than Ireland. Relative to Denmark, however, Ireland is found to be

relatively cheap for certain types of car – the Audi A4, for example, costing €56,309 new in Denmark compared with €33,883 in Ireland.

These findings are consistent with those for 2001, presented in the 2002 Forfás report.

Chapter 3 Analysis of National Drivers of Inflation

Summary of Chapter Findings

This chapter presents a high level analysis of the underlying drivers of consumer price inflation in Ireland for the 12 and 36-month periods to end January 2003. Key findings are the following:

- an analysis of 12 and 36-month inflation to end January 2003 shows the **non-traded** sector to be the primary driver of consumer price inflation in Ireland. The 12-month analysis showed the non-traded sector accounted for 67% of national inflation compared with a national consumer expenditure share of 52%. The respective contribution in the 36-month analysis was 73% - indicating some convergence of rates of inflation in the traded sector on those in the non-traded sector. This, in spite of the fact that the € has been appreciating against Sterling and the US\$ in recent months;
- an examination of the products/services driving inflation in the government-influenced category of spend, found that **excisable goods** (e.g. alcohol) accounted for the greatest share of the "government-influenced" category's contribution (i.e. 41% of 59%) to national inflation in the 12 months to end January 2003. However, relatively modest changes in rates of excise in recent budgets – tobacco being the obvious exception – suggested to the consultants that this significantly **overstated** the role of Government, i.e. market forces were also driving prices;
- this view was confirmed by a closer examination of the excise provisions of Budgets 2001, 2002 and 2003, which showed that certain of the most important excisable products (e.g. beer) had not been subject to any excise change in the 36 month period under review. Excluding these products from the analysis, the contribution of excisable products to "**government-influenced**" inflation fell from **41% to 30%** in the 12 months to end January 2003. Similarly, it was found that, even in the case of excisable products that had been subject to an increase, the excise change rarely accounted for close to the full amount of the inflation contribution, i.e. independent pricing decisions by product suppliers played an important contributory role;
- price increases in **state provided services** are, however, almost entirely within the control of the public sector. In the 12 months to end January 2003, the price of state provided services to the final consumer grew by an estimated 15%, compared with national inflation of 4.8%. Increases in the price of hospital services, motor taxation and third-level education were the most significant drivers of inflation in this category, which contributed 7% to national inflation in the 12 month period under review, compared with an expenditure share of just 2%;

Summary of Chapter Findings – cont'd

- the price of **government-regulated** services (e.g. rail transport) grew by 7.2% in the 12-month review period and by 17.4% in the 36-month review period, resulting in contributions to national inflation of 10.6% and 7.8% respectively. The largest share of the 12 month contribution (i.e. 5.4%) was accounted for by Government approval of an 18% increase in the price of VHI health insurance in September 2002;
- all in all, the analysis contained in this chapter lends support estimates that the Irish public service accounted for between **30% and 40%** (equivalent to between 1.4% and 1.9% of total 4.8%) of the increase in consumer prices experienced in the year to end January 2003. The Central Bank in its Spring Bulletin Report 2003 estimates that government added around 1.5% to overall inflation in the period under review.
- an analysis of **COICOP 1** level drivers of national inflation found the “pubs & restaurants” category of expenditure to be consistently the most important driver of national inflation – accounting for nearly 30% of the increase in the price of the standard basket of consumer goods/services in the year to end January 2003.
- combined with alcoholic beverages and tobacco (19%), transport (16%), and miscellaneous goods & services (15%), these categories of expenditure accounted for 80% of national inflation in the single-year analysis. The respective share for the three-year analysis was lower at 56% - reflecting a slow-down in the rate of inflation in the housing expenditure category in the past 12 months;
- a COICOP 2-level analysis of the **top drivers** of 12 month inflation supported COICOP 1 level findings – catering services (i.e. pubs) emerging as the single largest COICOP 2 level contributor (26%), followed by tobacco (13%), insurance (10%) and the operation of personal transport equipment, e.g. petrol (9%);
- similarly, a COICOP 2-level 12 month analysis of the products/services displaying the **highest rates of inflation** (which has no regard to expenditure share) found financial services to have experienced the largest price increase in the period (23.3%), followed by hospital services (19.3%), water supply & refuse services (19.3%), tobacco (13.7%) and third-level education (12.1%). A prevalence of government-influenced products/services is evident;
- finally, Irish inflation for the periods under review was the highest of any **EU15** country – with an analysis of inflation to year end 2002 showing exceptionally high rates of inflation in the “alcohol & tobacco”, “education”, “pubs & restaurants” and “miscellaneous goods & services” categories of expenditure.

3.1 Introduction

This chapter presents a detailed analysis of Irish consumer price inflation in the period January 2000 to January 2003, and places consumer price developments in this period in a wider EU15 context. The remainder of this chapter comprises two main sections. Section 3.2 presents a detailed analysis of consumer price inflation in Ireland, while Section 3.3 places this analysis in a wider EU15 context.

3.2 Consumer Price Inflation (CPI), 2000 to 2003

COICOPs Explained

This section presents a detailed analysis of consumer price inflation in Ireland in the periods January 2002 to January 2003 (i.e. 12 month inflation), and January 2000 to January 2003 (i.e. 36 month inflation). In advance of doing so, however, it is worthwhile explaining the “COICOP” system on which the national system for measuring CPI is based.

The aggregate national rate of consumer price inflation is derived from very detailed price information at individual product/service level, which is collected monthly by the CSO. Consumer products and services are organised into COICOPs (Classification of Individual Consumption by Purpose), which are assigned expenditure weights derived from the CSO’s Household Budget Survey.

There are five distinct COICOP levels, the highest of which (i.e. COICOP 1) relates to a very general expenditure category (e.g. “food & non-alcoholic beverages”) and the lowest of which (i.e. COICOP 5) can pertain to a very precise product/service, e.g. apples. An example of a CSO COICOP structure is provided in Table 3.1.

Table 3.1 Illustrative Example of COICOP Structure

COICOP 1	Health
COICOP 2	Medical Products, Appliances & Equipment
COICOP 3	Pharmaceutical Products
COICOP 3	Other Medical Products, Therapeutic Appliances & Equipment
COICOP 2	Outpatient Services
COICOP 3	Medical Services, Paramedical Services
COICOP 3	Dental Services
COICOP 2	Hospitals Services

The implication of the COICOP structure for the current exercise is that in identifying the drivers of national consumer price inflation in Ireland, the selection of the COICOP level to be used for the analysis will have a crucial bearing on the product/services identified. For example, the selection of COICOP level 3 for this analysis will mean that certain categories of expenditure will not be represented at all in the final analysis (as certain categories of expenditure do not go below COICOP level 2). Similarly, the COICOP level 3 analysis may highlight certain products/services as having very high rates of inflation, which may have gone unnoticed under a COICOP 2 level analysis. To overcome these problems, the consultants have adopted, where possible, a multi-level COICOP approach to the analysis of the drivers of national inflation in Ireland.

The remainder of this section comprises four sub-sections, which describe the primary drivers of consumer price inflation in Ireland in recent years.

Overview of National Inflation Drivers [Traded & Non-Traded^{vi}]

The annual rate of consumer price inflation in Ireland to end January 2003 was 4.8% - compared with 4.9% for the year ended January 2002 and 5.2% for the year ended January 2001. While the overall rate of consumer price inflation in Ireland has remained consistently high over the past three years, there has been considerable movement in the composition of its underlying drivers. This is evidenced in Figure 3.1, which shows the relative contributions of traded & non-traded items of expenditure to overall national inflation for the 12 and 36-month periods under review.

Figure 3.1 % Contribution to National Inflation, Traded & Non-Traded Items of Expenditure

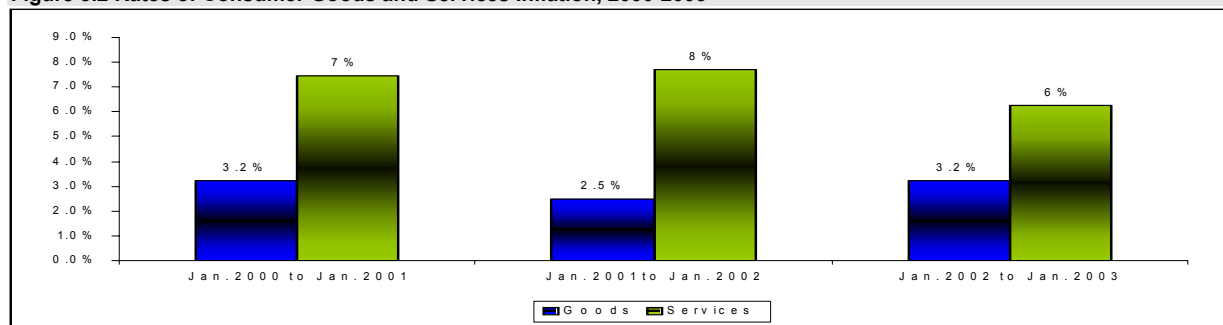


Source: CSO/PwC Derived

The key finding from Figure 3.1 is that the non-traded sector continues to drive consumer price inflation in Ireland – accounting for 67% of national inflation in the twelve months to end-January 2003. The share of total inflation accounted for by the non-traded sector in the 12 month analysis is, however, marginally lower than for the 36 month analysis – pointing to some convergence of rates of inflation in the traded sector of the economy on those of the non-traded sector, i.e. the ratio of traded to non-traded inflation was 1:1.9 in the 12 month analysis compared with a 1:2.5 ratio in the 36 month analysis.

This finding is supported by CSO findings on goods and services inflation differentials for the three years under review (see Figure 3.2).

Figure 3.2 Rates of Consumer Goods and Services Inflation, 2000-2003



Source: CSO

These findings are noteworthy to the extent that one may have expected some abatement of consumer price inflation in the traded sector of the economy in recent months in response to the appreciation of the € against Sterling and the US \$. To the end of January 2003, there were, however, no signs of any such development.

Overview of National Inflation Drivers [Government-influenced]

This section seeks to determine the relative contributions of government-influenced categories of consumer expenditure to national inflation in the period 2000-2003. Determining Government's influence on the national rate of inflation is not a straightforward task, to the extent that Government can directly (e.g. VAT) or indirectly (e.g. corporate tax rates) influence the price of any given consumer product/service. There are, however, certain products/services where Government can exert a particularly strong influence on price. Products or services falling into this category include:

- services provided and priced directly by the public sector, e.g. hospital services;
- products/services where Government approval is required if a price increase is to be effected, e.g. electricity;
- products/services where Government policy in the area of indirect taxation (i.e. excise duty) has a crucial bearing on the price to the consumer, e.g. tobacco.

Table 3.2 shows the contribution of those categories of consumer good/service, price developments in which are subject to some level of Government influence, to national inflation for the 12 and 36 periods under review.

Table 3.2 National Inflation and Government-influenced^{vii} Consumer Products/Services

	% of Expenditure	36 Month (Percentile Contribution)	12 Month (Percentile Contribution)
Alcoholic Beverages & Tobacco (2)	7.5%	1.41	0.90
Alcoholic Beverages	3.1%	0.5	0.3
Tobacco	4.4%	0.9	0.6
Total Public	7.5%	1.4	0.9
Housing & Utilities (4)	12.3%	2.49	0.25
Water Supply & Refuse Services	0.2%	0.1	0.0
Electricity	1.4%	0.1	0.0
Natural Gas	0.5%	0.0	0.0
Total Public	2.1%	0.2	0.0
Health (6)	2.5%	0.75	0.20
Prescribed Drugs	0.3%	0.1	0.0
Paramedical Services	0.1%	0.0	0.0
Hospital Services	0.6%	0.3	0.1
Total Public	1.0%	0.4	0.1
Transport (7)	13.2%	1.07	0.76
Fuels & Lubricants	3.1%	0.2	0.3
Motor Tax	0.7%	0.1	0.1
Driving Licences	0.0%	0.0	0.0
Rail Transport	0.3%	0.0	0.0
Bus Fares	0.65	0.1	0.1
Taxi Fares	0.6%	0.1	0.0
Total Public	5.3%	0.5	0.5
Communications (8)	1.9%	-0.2	0.0
Postal Services	0.1%	0.0	0.0
Recreation and Culture (9)	10.8%	1.83	0.49
Television Services	0.7%	0.31	0.13
Education (10)	1.5%	0.45	0.16
Third-level Education	0.7%	0.2	0.1
Restaurants (11)	17.8%	3.83	1.40
Beer in Licensed Premises	6.4%	1.3	0.5
Spirits in Licensed Premises	1.6%	0.5	0.3
Wine & Cider in Licensed Premises	0.7%	0.2	0.1
Total Public	8.7%	2.0	0.8
Miscellaneous Goods and Services (12)	9.0%	2.48	0.72
Health Insurance	1.5%	0.49	0.26
Total	100.0%	15.7	4.8
Government Influenced as a % of Total	28%	35%	59%

Source: CSO (PwC Derived)

The first point to note in relation to Table 3.2 is that the rate of inflation in government-influenced consumer goods and services has been higher than that for all consumer goods and services for the 12 and 36 month periods under review, i.e. the % contribution that

these goods/services have made to national inflation is greater than their share of national consumer spend. This differential has been particularly pronounced in the past 12 months with government-influenced goods/services accounting for more than half of national consumer price inflation (59%), compared with a national expenditure share of just 28%. In other words, the rate of increase in the price of all government-influenced products/services over the 12-month period (10%) was more than twice the national average (4.8%). However this figure needs to be treated with severe caution.

It is, however, important to emphasise that the level of Government influence varies considerably across the products/services included in Table 3.2. In the case of alcohol and tobacco, for example, price increases are determined not alone by Government decisions regarding rates of excise, rather are **heavily influenced by the independent pricing decisions of product suppliers**. By contrast, the price of directly provided public services (e.g. hospital services) is largely within the control of Government. **The implication of this is that the figures presented in Table 3.1 overstate Government's actual contribution to national inflation in recent years. To partially compensate for this, Table 3.3 presents an analysis of the contribution of government-influenced consumer products/services to national inflation, distinguishing between the following:**

- goods/services where the public sector directly determines price levels;
- goods/services where price changes are subject to Government approval;
- consumer goods which are subject to excise duties;
- consumer goods, levels of excise on which increased in the past 3 years.

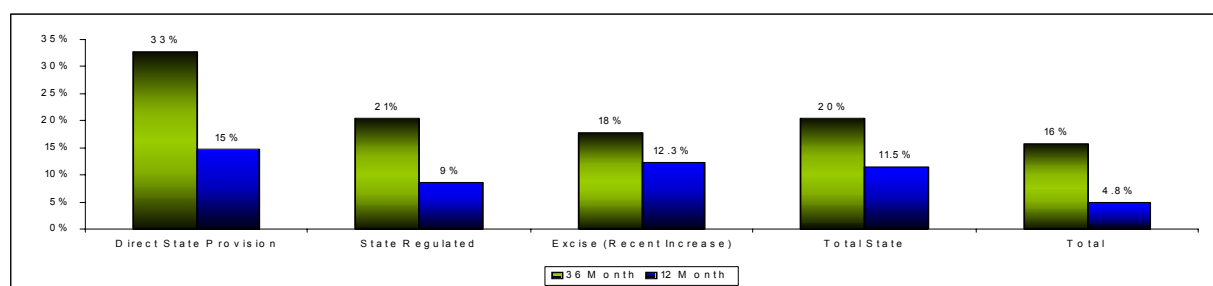
Rates of price inflation within these categories of government-influenced expenditure are compared with national inflation figures in Figure 3.3.

Table 3.3 National Inflation and Government-influenced Products/Services by Type

	36 Month	12 Month
Directly State Provided		
Percentile Contribution to National Inflation	0.8	0.3
% Contribution to National Inflation	5%	7%
Government Regulated/Approved		
Percentile Contribution to National Inflation	1.2	0.5
% Contribution to National Inflation	8%	11%
Excise Duty-influenced (Total)		
Percentile Contribution to National Inflation	3.5	2.0
% Contribution to National Inflation	23%	41%
Excise Duty-influenced (Recent Increase Only)^{viii}		
Percentile Contribution to National Inflation	2.1	1.5
% Contribution to National Inflation	14%	30%

Source: CSO (PwC Derived)

Figure 3.3 Rates of Consumer Price Inflation, Government-influenced and Total



Source: CSO (PwC Derived)

Key findings from Table 3.3 and Figure 3.3 are the following:

- the contribution of “government-influenced” goods and services to national inflation in recent years has been driven by goods that are subject to excise duty, i.e. motor fuel; alcohol; and tobacco. These accounted for 70% of inflation in the government-influenced product/service category in the year to end January 2003, consistent with their share of expenditure;
- while Government has the potential to influence the price of products/services subject to excise duty, a closer look at developments in excise duty over the period under review suggest that Government played a relatively small role in driving inflation in this category of spend over the past three years;
- this is evidenced in the fact that very important items of expenditure in this government-influenced category, i.e. beer and wine, were not subject to any increase in excise during the period under review, while other alcoholic products (e.g. spirits) were subject to relatively small increases. Similarly, a review of

month-on-month inflation data shows price hikes in the immediate aftermath of a change in excise to be often higher than those engendered by the change and regular monthly changes in price that may not be attributed to tax change;

- the possible exception in this regard is tobacco products, which have been subject to a series of sizeable increases in excise duty in recent years. Tobacco contributed 13% to national inflation in the 12 months to end January 2003 – a contribution that was largely attributable to an increase of 50c in excise duty on a packet of 20 cigarettes in Budget 2003;
- increases in the price of Government provided and/or regulated consumer goods and services contributed 18% to national inflation in the twelve months to end January 2003. This represented a 5% increase on the 13% contribution made by these goods/services to national inflation in the three year period;
- given that Government provided and/or regulated consumer goods and services account for just 8% of consumer expenditure in Ireland, it is clear that rates of price inflation in this category of government-influenced expenditure have outstripped those for all consumer goods and services;
- this is evidenced in Figure 3.3, which shows that the prices of Government provided services grew by 15% in the 12 month period to end January 2003, while those goods/services, the prices of which are regulated by Government, grew by 9%. This compares with a national rate of inflation of just 4.8%.

In summary, “government-influenced” data presented in Table 3.2 **significantly over-state** Government’s actual contribution to national inflation in recent years – high rates of inflation in product/services that are subject to excise duty being, in large part, the result of independent pricing decisions by product suppliers. Notwithstanding this, it is clear that a series of sizeable increases in the price of Government provided/regulated services (e.g. health insurance) as well as significant increases in the levels of excise duty on tobacco have made an important contribution to the high levels of consumer price inflation experienced in Ireland in recent years and, particularly, in the past 12 months. Analysis contained in Table 3.3 places this contribution at between **30% and 40%** - consistent with third-party estimates that Government accounted for circa 40% (1.9%) of full-year inflation (i.e. 4.8%) to end January 2003. The Central Bank in its Spring Bulletin 2003 estimated that government contributed 1.5% to the overall inflation rate in 2002.

Analysis of Inflation by Expenditure Category (COICOP 1)

The previous section presented a high-level overview of the drivers of national inflation in Ireland, distinguishing between the contribution made by the traded and non-traded sectors of the economy and identifying the role of Government. This section furthers this analysis by presenting inflation data by category of consumer expenditure (i.e. COICOP).

Table 3.4 presents a COICOP 1-level analysis of consumer price inflation in Ireland – with shading indicating a rate of price inflation in excess of the national average.

Table 3.4 Analysis of 12 and 36-Month Inflation by Category of Consumer Expenditure (COICOP 1)

COICOP Category	January 2002 – January 2003		January 2000 – January 2003	
	% Change	% Contribution to National Inflation	% Change	% Contribution to National Inflation
Food and Non-Alcoholic Beverages	2.4%	7%	14.0%	12%
Alcoholic Beverages and Tobacco	11.7%	19%	18.8%	9%
Clothing & Footwear	-7.8%	-8%	-13.7%	-4%
Housing, Water & Fuels	2.0%	5%	20.3%	16%
Furnishings & Household	-0.4%	0%	7.0%	2%
Health	7.9%	4%	29.9%	5%
Transport	5.6%	16%	8.2%	7%
Communications	0.0%	0%	-9.0%	-1%
Recreation and Culture	4.5%	10%	17.0%	12%
Education	10.2%	3%	29.3%	3%
Pubs & Restaurants	7.7%	29%	21.7%	24%
Miscellaneous Goods and Services	7.8%	15%	27.8%	16%
Total	4.8%	100%	15.7%	100%

Source: CSO (PwC Derived)

Key findings from Table 3.4 are the following:

- with the exception of the “alcoholic beverages and tobacco” category of expenditure, price changes in which are determined largely by Government, those categories of expenditure that have recorded the highest rates of inflation in recent times are characterised by a predominance of non-traded goods/services;
- with the exception of the housing category of expenditure, rates of inflation in which have abated considerably in the past 12 months, the primary drivers of inflation in Ireland have remained relatively constant over the past three years;
- these are pubs & restaurants (29%), off-licence alcoholic beverages and tobacco (19%), transport (16%), and miscellaneous goods & services (15%). Combined

these expenditure categories accounted for close to 80% of national inflation in the year ending January 2003. Reflecting a slow-down in the rate of inflation in the housing expenditure category in the past 12 months, the respective share over three years was lower at 56%;

- three categories of expenditure, all traded, recorded insignificant or negative price change in the past 36 months. These are clothing and footwear (-14%), communications (-9%), and furnishings and household equipment (+7%).

The analysis presented in Table 3.3 supports findings presented in the earlier section, i.e. they indicate the strong role of the non-traded sector, and pubs and restaurants in particular, and Government in driving price inflation.

Analysis of Inflation by Expenditure Category (COICOPs 2 & 3)

This section supplements the foregoing by identifying those precise consumer goods/service categories, price developments in which have been most noteworthy over the past 12 months. Two measures were used in preparing this analysis, namely:

- % contribution to national inflation (COICOP 2);
- % increase in prices (COICOP 2).

Table 3.5 shows the 15 (COICOP 2) categories of consumer expenditure that contributed most to national inflation in the 12 months to end January 2003, with shading indicating that the category in question also recorded a rate of inflation greater than the national average in the same period, i.e. a product/service can make a significant contribution to national inflation even at normal rates of inflation, if the product/service in question accounts for a relatively large share of consumer spend.

Table 3.5 Top 15 COICOP 2 Level Drivers of National Inflation, January 2002 to January 2003

Rank	COICOP Designation (2, 3 and 4)	% Contribution to 12 Month Inflation	12 Month Rate of Inflation
(1)	Catering Services	26%	7.8%
	Restaurants, cafes & licensed premises	25.9%	8.1%
	<i>Beer - Licensed Premises</i>	9.7%	7.1%
	<i>Rest. Café & Fast Food</i>	8.6%	7.0%
	<i>Spirits - Licensed Premises</i>	5.5%	15.7%
	<i>Wine & Cider - Licensed Premises</i>	1.3%	8.3%
(2)	Tobacco	13%	13.7%
	Cigarettes	12.5%	14.0%
(3)	Insurance	10%	10.3%
	Health Insurance	5.4%	17.2%
	Transport Insurance	3.0%	6.4%
(4)	Operation of Personal Transport Equipment	9%	8.2%
	Fuels & Lubricants	5.9%	8.8%
	<i>Petrol</i>	5.0%	8.9%
	<i>Diesel</i>	0.8%	8.7%
(5)	Food	6%	2.2%
	Bread & Cereals	2.1%	4.0%
(6)	Alcoholic Beverages (Off-licence)	6%	8.9%
	Spirits	3.7%	20.4%
	Wine & Cider	1.5%	5.3%
(7)	Recreational & Cultural Services	5%	6.8%
	Cultural Services	4.1%	8.9%
	<i>Television Services</i>	2.8%	18.7%
(8)	Purchase of Vehicles	4%	3.0%
	Purchase of Motor Cars	3.9%	3.1%
(9)	Package Holidays	3%	4.7%
(10)	Accommodation Services	3%	6.3%
(11)	Electricity, Gas and Other Fuels	3%	3.9%
	Liquid Fuels	2.3%	16.0%
(12)	Transport Services	3%	6.9%
	Road Passenger Transport	1.7%	6.6%
(13)	Hospital Services	3%	19.3%
(14)	Personal Care	2%	4.5%
	Hairdressers	1.4%	9.8%
(15)	Newspapers, Books & Stationery	2%	5.3%
	Newspapers & Periodicals	1.5%	7.2%

Source: CSO (PwC Derived)

Key findings from Table 3.5 are the following:

- six of the fifteen categories of expenditure included in Table 3.5 are there simply because they account for a large share of national consumer spend, i.e. they recorded “normal” rates of price inflation in the past 12 months. These are: food; purchase of vehicles; package holidays; electricity, gas and other fuels; personal care; and newspapers, books and stationery;
- the remaining categories of expenditure, i.e. those that made a significant contribution to national inflation and experienced relatively high rates of inflation in the past 12 months, are characterised by a predominance of “government-influenced” and “non-traded” goods/services;
- combined, catering services (which are dominated by pubs) and cigarettes accounted for close to 40% of national inflation last year. While increases in the excise duty charged on cigarettes and spirits/alcopops announced in December 2002 undoubtedly accounted for some share of this contribution, rates of inflation in these categories of expenditure, particularly spirits, were considerably higher than those engendered by the increase in excise duties;
- similarly, developments in the price of motor fuels are nearly entirely attributable to market factors – petrol, for example, was exempt from an increase in excise duty in Budget 2003;
- the hand of Government is, however, in evidence in the inflation contributions of the insurance (e.g. VHI), recreational and cultural services (e.g. television services), transport services (e.g. bus and rail services) and hospital services categories of expenditure.

Table 3.6 shows those COICOP 2 categories of expenditure that recorded the highest rates of inflation in the 12 months to end January 2003 – with shading indicating that the category in question contributed more than 5% to national inflation in this period. This measure is distinct from the foregoing to the extent that it has no regard to the share of national expenditure accounted for by the category of expenditure in question.

Table 3.6 15 COICOP 2 Categories of Expenditure with Highest Rates of Inflation, Jan. '02 to Jan. '03

Rank	COICOP (2, 3 & 4) Designation	12 Month Rate of Inflation	% Contribution to National Inflation
(1)	Financial Services	23.3%	0.2%
(2)	Hospital Services	19.3%	2.6%
(3)	Water Supply, Refuse & Related Services	19.3%	0.8%
	Refuse Collection	19.6%	n.a.
	Other Services relating to Dwelling	9.5%	n.a.
(4)	Tobacco	13.7%	12.9%
	Cigarettes	14.0%	12.5%
	Other Tobacco Products	9.9%	0.4%
(5)	Third Level Education	12.1%	1.8%
(6)	Second Level Education	12.1%	0.4%
(7)	Primary Level Education	11.6%	0.0%
(8)	Other Services	10.7%	1.7%
(9)	Insurance	10.3%	9.5%
	Health Insurance	17.2%	5.4%
(10)	Alcoholic Beverages (Off-licence)	8.9%	5.9%
	Spirits	20.4%	3.7%
(11)	Postal Services	8.8%	0.0%
(12)	Operation of Personal Transport Equip.	8.2%	9.1%
	Other Transport Services	9.4%	2.4%
	<i>Motor Tax - motor cycles</i>	11.9%	1.8%
	Fuels & Lubricants	8.8%	5.9%
	<i>Petrol</i>	8.9%	5.0%
	<i>Diesel</i>	8.7%	0.8%
(13)	Social Protection	8.1%	1.6%
(14)	Catering Services	7.8%	26.1%
	Restaurants, Cafes & Licensed Premises	8.1%	25.9%
	<i>Spirits - Licensed Premises</i>	15.7%	5.5%
	<i>Soft Drinks & Water</i>	10.4%	0.9%
	<i>Wine & Cider</i>	8.3%	1.3%
(15)	Other Education & Training	7.5%	1.1%

Source: CSO (PwC Derived)

The main point to note in relation to Table 3.6 is the predominance of publicly-provided or influenced services, ranging from motor taxation to the provision of hospital services. Indeed, a large increase in the cost of financial services in January 2003 (evidenced in an annual rate of inflation of 23%) is nearly entirely attributable to the introduction of fixed annual charges on debit and credit cards in Budget 2003.

Chapter 4 Analysis of COICOP Level 1 Drivers of Inflation

Summary of Chapter Findings

- this chapter describes the underlying drivers of inflation within those COICOP 1 categories of expenditure that have displayed the highest rates of price inflation in Ireland in recent years. Key findings are as follows:
- **pubs & restaurants** – an analysis of inflation in this category of expenditure showed a modest increase in the rate of inflation in recent months – largely the result of a significant increase in the rate of inflation in the “spirits in licensed premises” item of expenditure. While spirits and alcopops were subject to an increase in excise in Budget 2003, a more detailed analysis of spirit prices suggests that less than half of the 12 month price increase (i.e. 16%) was attributable to the change in excise regulations. Similarly, relatively large increases in the cost of other beverages in licensed premises (e.g. 7.1% increase in cost of beer) cannot be attributed to excise change. With the exception of restaurants, cafes and pubs, other items of expenditure within this category (i.e. canteens and accommodation services) experienced 12 months rates of inflation that were smaller than the national average (i.e. 4.8%);
- **alcohol & tobacco** – price developments in this category of expenditure appear to be driven, largely, by changes in excise regulations, spirits (20.4%) and tobacco (13.7%) recording very high rates of inflation relative to other products in this basket (e.g. beer – 3.4%). A more detailed analysis of monthly developments in the price of twenty cigarettes in the 12 month period under review suggests that the largest share (i.e. 70%) of the price increase effected in this period was attributable to the 50c increase in excise introduced in Budget 2003;
- **miscellaneous goods & services** – recent months have seen a reduction in the rate of inflation in this category of expenditure – reflecting abatement in the rate of increase of the cost of transport insurance. At 7.8%, however, inflation in the 12 month period to end January 2003 was considerably in excess of the national average (4.8%). The major driver of inflation in this period was health insurance, price increases in which, by-and-large, negated the inflation benefits associated with more modest rates of increase in transport insurance. Health insurance accounted for 5.4% of the 14.9% contribution this category of expenditure made to national inflation in the 12 month period under review;
- **recreation & culture** – inflation in this category of expenditure has also abated in recent months – with the result that the annual rate of inflation to end January 2003 (4.5%) was less than the national average (4.8%). Notwithstanding this, two services within this category of expenditure exhibited significant price increases in recent months, which are worthy of note. The first, and most readily explained, is “television services”, a significant component of which is the RTE Licence Fee. Government approval of a €43 increase (equivalent to 40%) in the cost of the Licence resulted in an 18.7% price increase in this item of expenditure to end 2003. Less easily explained is the 12.5% increase in sports admittances – considerably higher than an average 7% for the 36 month period under review. This development stands in contrast to price changes in other sports-related services, the rate of increase in which has abated in recent months, e.g. sports participation fees and club subscriptions.
- **health** - health inflation in Ireland has abated in recent months – annual inflation to end January 2003 standing at 7.9%, compared with 11.8% for the preceding year. This reduction in the rate of inflation is evidenced across all expenditure items – with the exception of hospital services, the price of which are, by-and-large, determined within the public sector. Hospital services were the major driver of health inflation in Ireland in the 12 month period under review, accounting for more than 60% of the health sector’s 4.2% contribution to inflation. The cost of health insurance is, however, not included in this category of spend/COICOP.

4.1 Introduction

This chapter entails a more detailed look at the individual product/service categories that have been driving consumer price inflation in Ireland in recent years. The emphasis is on those broad categories of expenditure (i.e. COICOP 1 level) that were identified as the most important drivers of inflation in Ireland in the past 12 months, namely:

- pubs & restaurants;
- health;
- alcoholic beverages and tobacco;
- recreation & culture;
- miscellaneous goods & services.

The remainder of this section comprises five sections, which review national and EU15 inflation within each of these categories of expenditure.

4.2 Pubs & Restaurants

EU15 Comparison

Table 4.1 compares inflation within the pubs & restaurants category of expenditure in Ireland with respective developments across the EU15 for the twelve month period ending December 2002.

Table 4.1 Inflation in the Pubs and Restaurants Category of Expenditure, EU15, 12 Months to End December 2002

	EU15		Ireland	
	Inflation	% Contribution to National Inflation	Inflation	% Contribution to National Inflation
Pubs & Restaurants (1)	4%	19%	7%	30%
Catering Services (2)	4%	16%	7%	27%
Restaurants, Cafes & Licensed Premises (3)	4%	15%	8%	27%
Canteens (3)	3%	1%	1%	0%
Accommodation services (2)	5%	4%	5%	3%

Source: CSO/Eurostat (PwC Derived)

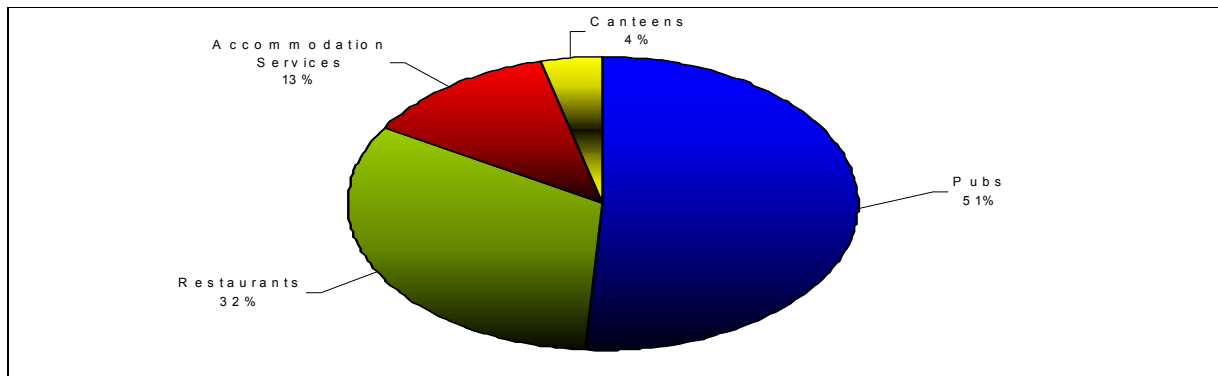
Table 4.1 shows that the pubs & restaurants category of expenditure is a more significant driver of consumer price inflation in Ireland than for the EU15 as a whole. In the 12-month period to end 2003, this expenditure category contributed 30% to inflation in Ireland. The

respective share for the EU15 was 19%. This differential is, however, not attributable to relatively high rates of inflation in Ireland – in fact the Irish rate of inflation in this expenditure category was closer to the EU15 average than the overall rate of inflation – rather reflects the high share of consumer expenditure accounted for by pub and restaurant services in Ireland (19.6% - Eurostat defined) relative to the rest of Europe (9.6%).

National Analysis

The pubs & restaurants category of expenditure (i.e. COICOP 11) accounts for 17.8% of national consumer expenditure, with the largest share of this expenditure accounted for by consumer expenditure in pubs (see Figure 4.1).

Figure 4.1 Distribution of Consumer Expenditure on “Pubs and Restaurants”



Source: CSO

Table 4.2 presents a detailed analysis of inflation in the pubs and restaurant expenditure category for the 12 and 36 month periods ending January 2003, with shading indicating a rate of inflation in excess of the COICOP average.

Table 4.2 Analysis of “Pubs & Restaurants” Inflation in Ireland

	12 Month Analysis (end January 2003)		36 Month Analysis (end January 2003)	
	Inflation	% Contribution (National)	Inflation (Annualised)	% Contribution (National)
Pubs & Restaurants (1)	7.7%	29.2%	7.2%	24.4%
Catering Services (2)	7.8%	26.1%	7.3%	21.6%
Restaurants, Cafes & Licensed Premises (3)	8.1%	25.9%	7.4%	21.0%
Beer in Licensed Premises (4)	7.1%	9.7%	6.7%	8.1%
Spirits in Licensed Premises (4)	15.7%	5.5%	10.8%	3.3%
Wine & Cider in Licensed Premises (4)	8.3%	1.3%	7.6%	1.0%
Soft Drinks & Water in Licensed Premises (4)	10.4%	0.9%	10.2%	0.8%
Restaurants & Cafes (4)	7.0%	8.6%	7.1%	7.8%
Canteens (3)	1.4%	0.2%	4.8%	0.6%
Accommodation Services (2)	6.3%	3.1%	6.5%	2.8%

Source: CSO (PwC Derived)

The first point to note in relation to Table 4.2 is that the contribution made by the pubs & restaurants expenditure category to national inflation for the periods under review is considerably higher than its share of national expenditure – indicating rates of inflation well in excess of the national average. In other words, while the pubs & restaurants category of expenditure accounts for just 18% of national expenditure, it contributed 29% to national inflation in the 12 month period to end 2003. The respective contribution for the three-year analysis is 24.4% - indicating a higher rate of inflation in the past 12 months than in the previous two years. A closer examination of the products/services driving inflation in this category of expenditure shows that beer in licensed premises and restaurant/café services accounted for more than 60% of inflation in this COICOP – although rates of inflation in both these categories of spend were less than for the COICOP as a whole. While Government can influence the price of beer through the introduction of revised rates of excise, no change in the rate of duty payable on beer has been effected since 1994. In fact, the only changes in the rates of excise charged on alcohol effected during the 12 months to end January 2003 (i.e. Budget 2003) was a 20c increase (including VAT) on the price of a standard measure of spirits and a 35c increase in the cost of alcopops – bringing their rates of excise into line with those for other spirits. This change, however, only partially explains the large increase in the price of spirits for the periods under review. This is evidenced in Table 4.3, which shows the price of a standard measure of vodka for the twelve months to end January 2003.

Table 4.3 Developments in the Price of a Standard Measure of Vodka, January 2002 – January 2003

	Price (€)	Index
January 2002	€ 2.64	100.0
February 2002	€ 2.64	100.1
March 2002	€ 2.65	100.7
April 2002	€ 2.69	102.1
May 2002	€ 2.70	102.5
June 2002	€ 2.70	102.6
July 2002	€ 2.71	102.7
August 2002	€ 2.71	102.7
September 2002	€ 2.64	100.1
October 2002	€ 2.71	102.8
November 2002	€ 2.71	102.8
December 2002	€ 2.89	109.5
January 2003	€ 3.17	120.4
Price Change (full-year)	€ 0.54	20%
Price Change (November to January)	€ 0.46	17%
Excise-induced Change (November to January)	€ 0.20	7%

Source: CSO (PwC Derived)

Table 4.3 indicates that the price of a standard measure of spirits increase by 48c in the 12 months to end January 2003, equivalent to a 16% increase – with the greatest share of this increase (i.e. 30c or 9%) effected in the months immediately after the implementation of Budget 2003 excise provisions (i.e. December and January). It should, however, be noted that the price increase effected would appear to be greater than that which was excise-induced (i.e. 20c or 6%). It would, thus, be erroneous to conclude that price increases were entirely attributable to excise changes – even though the timing of the change coincides.

4.3 Alcohol & Tobacco [Off-Licence]

EU15 Comparison

Table 4.4 compares alcohol and tobacco inflation in Ireland with that across the EU15.

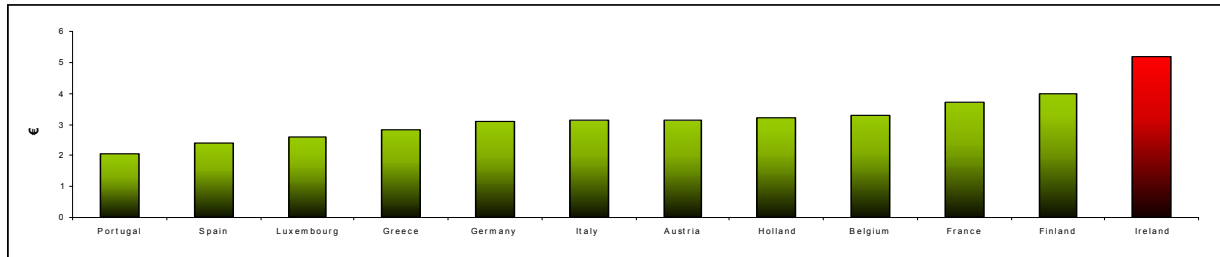
Table 4.4 Inflation in the Alcohol & Tobacco Category of Expenditure, EU15, 12 Months to end December 2002

	EU 15		Ireland	
	Inflation	% Contribution	Inflation	% Contribution
Alcoholic Beverages & Tobacco (1)	4%	7%	10%	18%
Alcoholic Beverages (2)	2%	1%	6%	5%
Spirits (3)	1%	0%	10%	2%
Wine (3)	1%	0%	5%	2%
Beer (3)	2%	1%	3%	1%
Tobacco (2)	5%	6%	13%	14%

Source: CSO/Eurostat (PwC Derived)

Again, the large contribution of alcohol and tobacco to inflation in Ireland (18%) relative to that for the EU15 as a whole (7%) is largely explained by the fact that this expenditure category accounts for a relatively large share of consumer expenditure in Ireland (i.e. 8.3% in Ireland vs. 4.2% for EU15) – the ratio of Irish: EU15 inflation being largely consistent with the ratio for the full basket of consumer goods and services. High rates of excise on alcohol and tobacco have contributed to Ireland's status as the second most expensive country in the eurozone for these products, after Finland. Indeed, Mercer data from September 2002 indicate that Ireland is now the most expensive country in the eurozone in which to purchase of box of 20 cigarettes (see Figure 4.2).

Figure 4.2 € Price of a Box of 20 Cigarettes, Eurozone, 2002

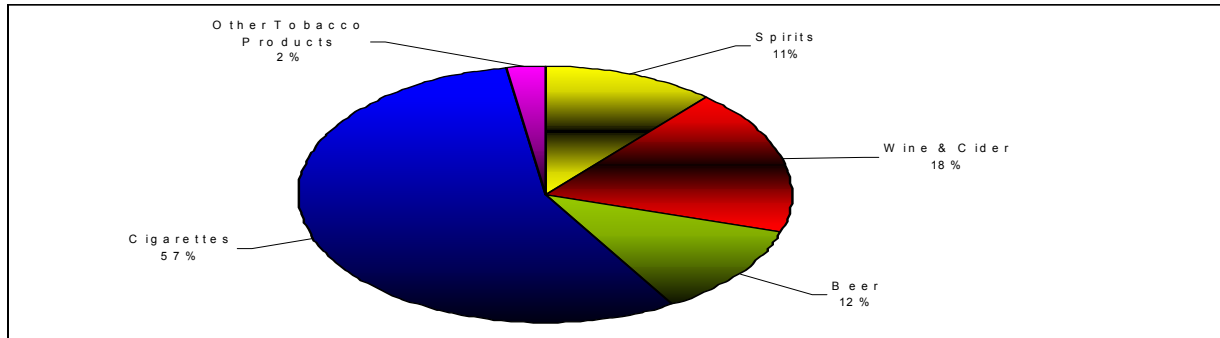


Source: Mercer HR Consulting

National Analysis

Off-licence alcohol and tobacco account for 7.5% of consumer expenditure in Ireland – with the largest share of this amount (i.e. 4.2%) accounted for by cigarettes (see Figure 4.3).

Figure 4.3 Distribution of Consumer Expenditure on Off-licence Alcohol and Tobacco



Source: CSO

To end January 2003, the alcohol and tobacco category of expenditure had contributed nearly 19% to national inflation – considerably higher than an average contribution of 9% for the three years ended January 2003. A detailed analysis of the major drivers of inflation within this expenditure category is presented in Table 4.5 – with shading indicating a rate of inflation in excess of the COICOP average.

Table 4.5 Analysis of Alcohol & Tobacco Inflation in Ireland

	12 Months		36 Months	
	Inflation	% Contribution to National Inflation	Inflation (Annualised)	% Contribution to National Inflation
Alcoholic Beverages & Tobacco (1)	11.7%	18.7%	6.3%	9%
Alcoholic Beverages (2)	8.9%	5.9%	5.0%	3%
Spirits (3)	20.4%	3.7%	8.1%	1%
Wine & Cider (3)	5.3%	1.5%	3.7%	1%
Beer (3)	3.4%	0.6%	3.9%	1%
Tobacco (2)	13.7%	12.9%	7.1%	6%
Cigarettes (3)	14.0%	12.5%	7.2%	6%
Other Tobacco Products (3)	9.9%	0.4%	5.5%	0%

Source: CSO (PwC Derived)

Table 4.5 points clearly to spirits and cigarettes as the major drivers of inflation within this category of expenditure to the year ended January 2003 – consistent with the situation for the three-year period under review. Significant increases in the price of these products are largely attributable to changes in the rate of excise charged – cigarettes having been subject to increases in excise rates in every budget for the period under review, and spirits having been subject to an increase in Budget 2003. A detailed review of developments in the price of both products indicates that increases were driven largely, albeit not entirely, by changes in the excise regime – evidenced in the case of cigarettes in Table 4.6.

Table 4.6 Developments in the Price of 20 Cigarettes, January 2002 – January 2003

12 Month Inflation	Price (€)	Index
January	€ 5.01	100.0
February	€ 5.01	100.1
March	€ 5.16	103.0
April	€ 5.17	103.3
May	€ 5.18	103.4
June	€ 5.18	103.4
July	€ 5.18	103.4
August	€ 5.18	103.4
September	€ 4.89	97.6
October	€ 5.20	103.8
November	€ 5.20	103.9
December	€ 5.64	112.5
January	€ 5.71	114.0
Price Change (full-year)	€ 0.70	14.0%
Price Change (November to January)	€ 0.51	9.8%
Excise-induced Change (November to January)	€ 0.50	9.6%

Source: CSO and Department of Finance/PwC-Derived

4.4 Miscellaneous Goods & Services

EU15 Comparison

Table 4.7 compares inflation in the miscellaneous goods & services category of expenditure in Ireland with that for the EU15.

Table 4.7 Inflation in the Miscellaneous Category of Expenditure, EU15, 12 Months to end December 2002

	EU15		Ireland	
	Inflation	% Contribution	Inflation	% Contribution
Miscellaneous Goods & Services (1)	3%	10%	7%	9%
Personal Care (2)	2%	3%	4%	2%
Hairdressing & Personal Grooming (3)	4%	2%	9%	2%
Electrical Appliances for Personal Care (3)	1%	1%	2%	1%
Personal Effects n.e.c. (2)	2%	1%	-4%	0%
Jewellery, Clocks & Watches (3)	2%	1%	0%	0%
Other Personal Effects (3)	1%	0%	-6%	0%
Social Protection (2)	3%	1%	8%	2%
Insurance (2)	4%	3%	14%	4%
Financial Services (2)	4%	1%	23%	0%
Other Services n.e.c. (2)	3%	1%	11%	1%

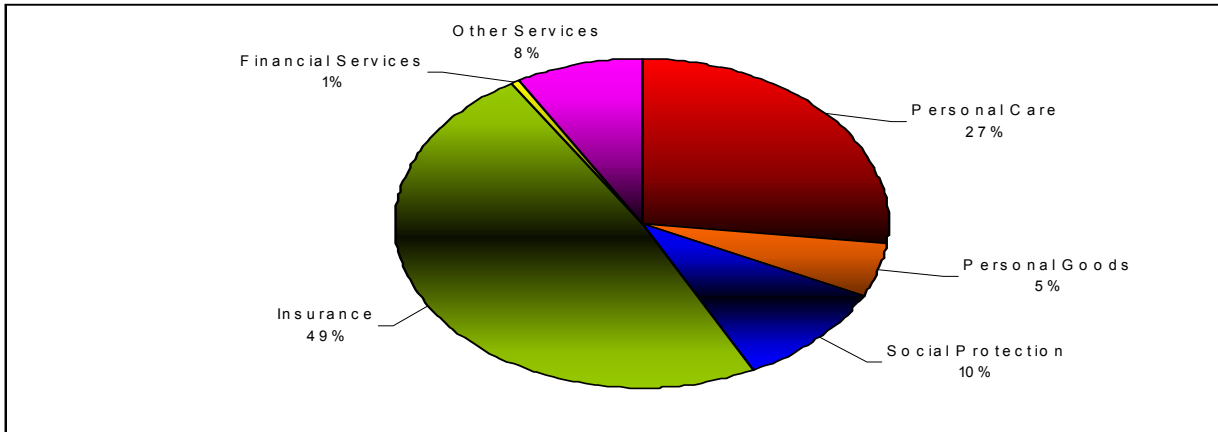
Source: CSO/Eurostat (PwC Derived)

The role of the miscellaneous goods & services category of expenditure in driving inflation in Ireland (i.e. 9% contribution) is broadly consistent with that for the EU15 (10%) – reflecting a combination of an Ireland: EU15 inflation differential that is marginally higher than for all consumer goods and services, and a relatively low share of national expenditure in Ireland (6% vs. 8% for EU15). Points of note from Table 4.8 include the very high rate of insurance and financial services inflation in Ireland relative to EU15, and relatively low levels of inflation in products contained under the “personal effects” category.

National Analysis

Miscellaneous Goods and Services account for 9% of consumer expenditure in Ireland, with insurance and personal care (e.g. hairdressing) services accounting for the greatest share of this expenditure (see Figure 4.4).

Figure 4.4 Distribution of Consumer Expenditure on Miscellaneous Goods and Services



Source: CSO

Table 4.8 presents a detailed analysis of inflation in the miscellaneous goods & services category for the 12 month and 36 month periods ending January 2003 – with shading indicating a rate of inflation in excess of the average for the COICOP as a whole.

Table 4.8 Analysis of Miscellaneous Goods and Services Inflation

	12 Months		36 Months	
	Inflation	% Contribution to National Inflation	Inflation (Annualised)	% Contribution to National Inflation
Miscellaneous Goods and Services (1)	7.8%	14.9%	9.3%	15.8%
Personal Care (2)	4.5%	2.3%	6.7%	3.1%
Hairdressing Salons & Personal Grooming (3)	9.8%	1.4%	11.3%	1.6%
Electric Appliances for Personal Care (3)	-1.4%	n.a.	-1.4%	n.a.
Other Appliances, Articles and Products (3)	2.5%	0.9%	4.4%	1.5%
Personal Goods (2)	-4.1%	-0.4%	-0.8%	-0.1%
Jewellery, Clocks & Watches (3)	-0.5%	0.0%	1.5%	0.0%
Other Personal Goods (3)	-6.4%	-0.4%	-3.0%	-0.1%
Social Protection (2)	8.1%	1.6%	10.8%	1.9%
Childcare (3)	8.3%	1.3%	10.6%	1.5%
Other Social Protection (3)	7.5%	0.3%	11.7%	0.4%
Insurance (2)	10.3%	9.5%	12.2%	10.1%
Dwelling Insurance (3)	7.7%	1.1%	10.9%	1.5%
Health Insurance (3)	17.2%	5.4%	11.2%	3.1%
Transport Insurance (3)	6.4%	3.0%	13.1%	5.5%
<i>Motor Cycle Insurance (4)</i>	25.9%	0.1%	28.5%	0.1%
<i>Motor Car Insurance (4)</i>	6.2%	2.9%	12.9%	5.4%
Financial Services (2)	23.3%	0.2%	8.6%	0.1%
Other Services (2)	10.7%	1.7%	5.2%	0.7%

Source: CSO (PwC Derived)

The first point to note in relation to this category of expenditure is that its potency as a national driver of inflation has abated somewhat over the course of the past twelve months, attributable, in some part, to a considerable decline in the rate of inflation in transport insurance. This decline was, however, somewhat negated by a large increase in the price of private health insurance – following Government’s approval of an 18% increase in the price of VHI premia in September 2002. Products/services that recorded the highest rates of inflation in this category of expenditure in the full-year ended January 2003 were motor cycle insurance (26%), financial services (23%), health insurance (17.2%), and hairdressing salons & personal grooming (10.7%). As stated previously, the large increase in the cost of financial services was affected almost entirely in December 2002 – in the wake of large increases in the stamp duty charged on credit, debit and ATM cards. The very small share of consumer expenditure accounted for by financial services, however, meant that this measure had a very limited impact on national inflation.

4.5 Recreation & Culture

EU15 Comparison

Table 4.9 places recreation & culture inflation in Ireland in an EU15 context.

Table 4.9 Inflation in the R&C Category of Expenditure, EU15, 12 Months to end December 2002

	EU15		Ireland	
	Inflation	% Contribution	Inflation	% Contribution
Recreation & Culture (1)	1%	5%	4%	11%
Audio-visual & Photographic Equipment (2)	-6%	-5%	-1%	-0.3%
Other Major Durables for R&C (2)	2%	0%	1%	0.0%
Other Recreational Items (2)	-0.1%	-0.1%	2%	0%
Games Toys & Hobbies (3)	-3%	-3%	-4%	-0.3%
Equipment for Sport, Camping & Outdoor R&C (3)	-1%	-0.3%	4%	0%
Gardens, Plants & Flowers (3)	2%	2%	3%	0%
Pets & Related Products/Services (3)	2%	2%	5%	0%
R & C Services (2)	3%	4%	6%	6%
Recreation & Sporting Services (3)	4%	2%	8%	3%
Cultural Services (3)	3%	2%	4%	2%
Newspapers, Books & Stationery (2)	3%	2%	5%	2%
Books (3)	3%	1%	3%	2%
Newspapers (3)	3%	1%	7%	1%
Stationery (3)	2%	0%	2%	2%
Package Holidays (2)	5%	3%	5%	11%

Source: CSO/Eurostat (PwC Derived)

Table 4.9 shows a large differential in the rates of recreation & culture inflation between Ireland and the EU15 – manifested in a contribution to Irish inflation (11%) that is considerably higher than for the 15 member states combined (5%). Particular noteworthy are increases or negligible declines in the cost of certain recreational goods in Ireland, when prices across the EU15 would appear to have fallen very significantly. These include audio-visual and photographic equipment (-1% vs. -6%), other recreational items (+1.6% vs. -0.1%), and equipment for sport and camping (+3.8% vs. -0.7%).

National Analysis

Expenditure on recreation & culture accounts for 11% of national consumer spend in Ireland, with the largest share of this accounted for by package holidays (31%), cultural services (20%), recreation and sporting services (10%), and newspapers, books and stationery (18%). Table 4.10 presents a detailed analysis of inflation in the recreation &

culture category of expenditure in recent years – with shading indicating a rate of inflation in excess of the average for the COICOP.

Table 4.10 Analysis of Recreation & Culture Inflation

	12 Months		36 Months	
	Inflation	% Contribution to National Inflation	Inflation (Annualised)	% Contribution to National Inflation
Recreation & Culture (1)	4.5%	10.3%	6%	11.6%
Audio-visual & Photographic Equipment (2)	-1.8%	-0.4%	-1%	-0.2%
Other Major Durables for R&C (2)	1.7%	0.0%	1%	0.0%
Other Recreational Items (2)	1.5%	0.4%	2%	0.4%
Games Toys & Hobbies (3)	-2.7%	-0.2%	-2%	-0.1%
Equipment for Sport, Camping & Outdoor R&C (3)	3.6%	0.1%	3%	0.1%
Gardens, Plants & Flowers (3)	3.6%	0.3%	4%	0.3%
Pets & Related Products/Services (3)	2.9%	0.2%	3%	0.2%
R & C Services (2)	6.8%	4.8%	8%	5.3%
Recreation & Sporting Services (3)	2.8%	0.6%	7%	1.5%
<i>Sports Admittance (4)</i>	12.5%	0.4%	7%	0.2%
<i>Sports Participation (4)</i>	2.5%	0.2%	12%	1.0%
<i>Club & Society Subscriptions (4)</i>	0.0%	0.0%	4%	0.3%
Cultural Services (3)	8.9%	4.1%	9%	3.8%
<i>Cinema (4)</i>	4.4%	0.2%	6%	0.3%
<i>Nightclubs (4)</i>	4.4%	0.3%	4%	0.3%
<i>Cultural Admittances (4)</i>	4.6%	0.7%	8%	1.0%
<i>Other Entertainment (4)</i>	3.3%	0.2%	7%	0.3%
<i>Television Services (4)</i>	18.7%	2.7%	15%	2.0%
Newspapers, Books & Stationery (2)	5.3%	2.1%	7%	2.5%
Books (3)	3.6%	0.4%	4%	0.4%
Newspapers (3)	7.2%	1.5%	9%	1.8%
Stationery (3)	2.3%	0.2%	3%	0.3%
Package Holidays (2)	4.7%	3.4%	6%	3.7%

Source: CSO (PwC Derived)

The first point to note in relation to Table 4.10 is that price inflation in the recreation & culture category of expenditure (4.5%) to the year ended January 2003 was lower than for all consumer goods and services (4.8%) – leading to a contribution to national inflation (10.3%) lower than the category’s share of national expenditure (11%). More modest rates of inflation were evidenced across nearly all expenditure items, with a small number of notable exceptions, namely “television services” and “sports admittances”.

The predominant item of expenditure in the television services category of expenditure is the RTE Licence Fee, which has been subject to a series of Government-approved increases in recent years – culminating in the approval of a €43 increase (equivalent to 40%) from

January 2003. This increase explains the unusually high rate of inflation in the television services expenditure item.

The second item of expenditure to record a higher rate of price inflation in the very recent past than the in the three years to end January 2003 is "sports admittances". The price of sports admittances grew by 12.5% in the 12 month period under review, compared with an average inflation rate of just 7% in the three year period. The anomalous nature of these price increases is evidenced in the fact that inflation in all other expenditure items within the "recreational and sport services" category has abated in recent times. There is no apparent explanation for this development.

4.6 Health

EU15 Comparison

Table 4.11 compares health inflation in Ireland with the EU15.

Table 4.11 Inflation in the Health Category of Expenditure, EU15, 12 Months to end December 2002

	EU15		Ireland	
	Inflation	% Contribution to National Inflation	Inflation	% Contribution to National Inflation
Health (1)	3%	5%	8%	5%
Medical Products, Appliances & Equipment (2)	1%	1%	4%	1%
Pharmaceutical Products (3)	1%	1%	5%	1%
Other Medical Products, Therapeutic Appliances & Equipment (3)	2%	0%	3%	0%
Outpatient Services (2)	4%	3%	6%	1%
Medical Services, Paramedical Services (3)	5%	2%	5%	1%
Dental Services (3)	4%	1%	9%	1%
Hospitals Services (2)	4%	1%	16%	2%

Source: CSO/Eurostat (PwC Derived)

Table 4.11 shows that the contribution of health-related items of consumer expenditure to national inflation in Ireland in the 12 months to end December 2002 was consistent with the experience for the EU15 as a whole – although rates of inflation were clearly much higher. Health-related items of expenditure that experienced rates of inflation that were particularly anomalous in an EU15 context are hospital services (16% vs. 4%) and pharmaceutical products (1% vs. 5%).

National Analysis

Health-related products/services account for 2.5% of consumer expenditure in Ireland, the greatest share of which is accounted for by medicines (30%), hospital services (25%) and doctors' fees (17%). Table 4.12 presents a detailed analysis of the drivers of health inflation in Ireland for the 12 and 36 month periods under review – shading indicating a rate of inflation in excess of that for the entire COICOP.

Table 4.12 Analysis of Health Inflation in Ireland

	12 Month		36 Month	
	Inflation	% Contribution to National Inflation	Inflation (Annualised)	% Contribution to National Inflation
Health (1)	7.9%	4.2%	10.0%	4.8%
Medical Products (2)	3.7%	0.8%	5.3%	1.1%
Pharmaceutical Products (3)	4.6%	0.6%	5.2%	0.6%
<i>Prescribed Drugs (4)</i>	5.4%	0.4%	5.3%	0.4%
<i>Other Medicines (4)</i>	3.7%	0.2%	4.5%	0.2%
Other Medical Products (3)	3.5%	0.1%	4.7%	0.2%
Therapeutic Appliances (3)	1.9%	0.1%	6.0%	0.3%
Outpatient Services (2)	4.1%	0.8%	10.5%	1.8%
Medical Services (3)	2.4%	0.3%	11.6%	1.2%
<i>Doctors Fees (4)</i>	2.2%	0.2%	11.6%	0.9%
Dental Services (3)	8.0%	0.4%	8.6%	0.4%
Paramedical Services (2)	4.8%	0.1%	6.5%	0.1%
Hospital Services (2)	19.3%	2.6%	15.1%	1.9%

Source: CSO (PwC Derived)

Health inflation in Ireland has abated in recent months – annual inflation to end January 2003 standing at 7.9%, compared with 11.8% for the preceding year. This reduction in the rate of inflation is evidenced across all expenditure items – with the exception of hospital services, the price of which is, by-and-large, determined within the public sector. Hospital services were the major driver of health inflation in Ireland in the 12 month period under review, accounting for more than 60% of the health sector's 4.2% contribution to inflation. The respective contribution in the three-year period to end January 2003 was 40%. It should, however, be noted that this COICOP does not include the cost of private health insurance, the price of which has increased substantially in the past six months.

ⁱ see <http://www.forfas.ie/publications/cc-pricing-eurozone/PWC-Forfas.pdf>

ⁱⁱ 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 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.

ⁱⁱⁱ Purchasing Power Parity

^{iv} The ranking of countries below Ireland is worthy of note to the extent that in 1999 France and Germany were the countries found to be marginally more expensive than Ireland. Figure 2.1, however, shows France to have slipped behind Luxembourg and the Netherlands in terms of the relative affordability of consumer goods/services in the intervening years. While much of this decline can be attributed to differentials in the rates of consumer price inflation between the countries, this development is partially attributable to the fact that PPP comparative price data is not specifically designed to show price developments over time (i.e. temporal comparison). This design limitation does not, however, affect Ireland's ranking – which remains at two regardless of the methodology applied to update the 1999 data (i.e. application of inflation data vs. acceptance of updated Eurostat price data). The issue arises primarily when a group of countries are tightly grouped in terms of relative affordability.

^v It should be noted that this price pertains to restaurants as opposed to bars. The price of a glass of Heineken in a bar is likely to be significantly less.

^{vi} See Annex 3 for full listing of traded and non-traded products/services.

^{vii} It should be noted that this analysis was carried out to COICOP 4 level, with the implication that certain of the product/service categories included in the "government-influenced" analysis are not subject to any Government influence. "Television services", for example, incorporates the cost of privately-provided services such as NTL. Similarly, "third-level education" includes not just student registration fees, rather also the cost of maintaining a student away from home.

^{viii} i.e. those excisable products that were subject to an excise increase in Budgets 2003, 2002 and 2001.

Annex 1: Methodological Issues with Comparative Price Surveys

Information Sources and Research Limitations

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 the following sections.

- General issues that beset comparative price surveys.
- Description of methodology underpinning the computation of Eurostat PPP-derived comparative price data.
- Strengths and weaknesses of Mercer Human Resource Consulting comparative price data as used in this study,
- Description of comparative price data available from the European Commission.

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 question^{viii}. 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 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.

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) headings^{viii} (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.

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”^{viii}** – 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 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 affect 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.

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.

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.

Annex 2: European Rates of Consumer Price Inflation 2002

Irish Inflation in European Perspective

This Table presents comparative inflation data for the full-year to end December 2002 for the EU15, where shading indicates a rate of inflation in excess of that recorded in Ireland.

Consumer Price Inflation (HICP), EU15, December 2001 to December 2002 ^{viii}																
	EU15	IRL	UK	B	I	D	F	NL	E	P	A	S	FIN	DK	GR	LUX
All-items	2.2%	4.6%	1.7%	1.3%	3.0%	1.1%	2.2%	3.5%	4.0%	4.0%	1.7%	1.7%	1.7%	2.6%	3.5%	2.8%
Food and non-alcoholic beverages	1.3%	2.8%	-0.2%	1.0%	3.2%	-1.0%	1.4%	2.4%	4.5%	0.9%	0.3%	0.6%	0.4%	1.8%	1.3%	2.8%
Alcohol & tobacco	3.6%	10.0%	1.7%	1.9%	3.1%	3.8%	5.0%	4.3%	4.6%	5.4%	5.2%	2.6%	0.8%	0.9%	5.8%	5.1%
Clothing and footwear	0.5%	-5.5%	-7.4%	1.2%	3.2%	-0.6%	0.6%	-0.6%	5.3%	2.1%	0.4%	-1.3%	-0.2%	2.4%	2.8%	1.6%
Housing & Utilities	1.9%	3.7%	2.6%	1.6%	1.1%	0.9%	2.6%	4.2%	2.9%	3.7%	1.3%	4.0%	3.6%	2.7%	6.3%	3.1%
Furnishings & household equipment	1.2%	0.2%	-0.8%	1.6%	2.1%	0.5%	1.0%	3.4%	2.4%	3.0%	1.3%	1.2%	0.9%	2.1%	1.4%	1.6%
Health	3.1%	7.7%	3.3%	1.9%	6.4%	-0.1%	4.0%	3.8%	2.6%	4.5%	2.4%	3.3%	4.2%	-1.0%	n.a.	-4.5%
Transport	3.6%	4.3%	4.4%	2.3%	3.0%	3.7%	2.6%	3.7%	5.2%	6.4%	1.8%	3.9%	2.6%	4.4%	4.3%	2.8%
Communications	-0.9%	0.6%	0.0%	0.7%	-1.1%	0.6%	-0.4%	4.0%	-5.1%	1.7%	-2.9%	-1.4%	-4.6%	-0.1%	-7.2%	-4.3%
Recreation and culture	1.0%	4.1%	1.6%	2.0%	2.1%	0.1%	0.5%	2.7%	1.8%	2.7%	1.7%	0.6%	1.1%	1.7%	2.9%	1.8%
Education	5.0%	11.6%	8.5%	1.6%	3.2%	3.1%	2.7%	5.5%	4.7%	4.8%	3.5%	-24%	5.5%	11.0%	4.5%	9.7%
Pubs & Restaurants	4.4%	7.1%	3.4%	4.5%	4.9%	3.2%	3.4%	5.9%	5.8%	6.6%	3.6%	3.0%	4.1%	2.0%	6.5%	4.5%
Miscellaneous goods and services	2.9%	6.8%	3.0%	2.2%	3.8%	2.0%	2.5%	4.2%	3.6%	5.7%	2.7%	-0.7%	1.8%	4.9%	2.5%	2.1%
Goods	1.4%	3.0%	-1.2%	1.0%	2.6%	0.7%	1.6%	2.7%	3.9%	2.5%	1.0%	1.4%	1.2%	2.1%	3.0%	2.8%
Services	3.4%	6.5%	5.0%	1.8%	3.5%	1.9%	3.0%	4.6%	4.6%	6.7%	2.6%	2.2%	2.6%	3.6%	4.3%	2.9%

Source: Eurostat (PwC Derived)

Ireland recorded the highest rate of consumer price inflation of any EU15 member in the year to end December 2002 – evidenced in an overall EU15 inflation rate of just 2.2% compared with 4.6% for Ireland. Other relatively high inflation economies in this year were Spain (4%), Portugal (4%), Greece (3.5%) and the Netherlands (3.5%). In relative terms, Ireland recorded exceptionally high rates of inflation in the following COICOP 1 categories:

- **alcohol & tobacco** – Ireland’s 10% increase dwarfs that of any other country, with the possible exception of Greece (5.8%);
- **health** – a 7.7% increase in the cost of health products and services compares with an increase of just 3.1% for the EU15 as a whole;

- **recreation & culture** – Ireland’s 4.1% compares with 1% for the EU15 as a whole and a meagre 0.1% in Germany;
- **education** – at 11.6%, the only countries to come close were Denmark (11%) and Luxembourg (9.7%);
- **pubs & restaurants** - while the differential between Ireland and the EU15 is small relative to other categories of expenditure (i.e. 1: 0.6), Ireland still recorded the largest increase of any EU15 country;
- **miscellaneous goods & services** – again, Ireland recorded by far the largest increase in this category of expenditure.

On a more positive note, Ireland recorded one of the lowest annual rates of inflation in the clothing & footwear, and furnishings and household equipment categories of expenditure.

Finally, it is worth noting that rates of services and goods inflation in Ireland were equally anomalous in an EU15 context. This is, by-and-large, attributable to the high level of inflation recorded in the “alcohol and tobacco” expenditure category – price movements in which were influenced, to some extent, by changes in excise duty regulations in Ireland.

The following table presents an identical analysis for the three year period to end December 2002.

Consumer Price Inflation (HICP), EU15, December 1999 to December 2002

	EU15	IRL	UK	B	I	D	F	NL	E	P	A	S	FIN	DK	GR	LUX
All-items	6.6%	14.2%	3.6%	6.3%	8.2%	5.0%	5.4%	12.0%	10.9%	12.2%	5.4%	6.3%	7.1%	7.2%	11.1%	8.2%
Food and non-alcoholic beverages	8.5%	14.2%	4.4%	8.0%	10.6%	4.8%	10.1%	12.4%	13.6%	10.6%	5.6%	6.6%	8.5%	7.6%	13.9%	11.8%
Alcohol & tobacco	9.1%	16.5%	9.5%	5.8%	7.0%	5.9%	11.5%	15.2%	12.7%	10.5%	11.4%	4.1%	5.8%	4.4%	18.5%	15.7%
Clothing and footwear	1.2%	-11%	-21%	3.0%	8.6%	0.9%	1.9%	4.0%	14.2%	6.2%	-0.2%	5.2%	1.6%	0.0%	10.4%	5.1%
Housing & Utilities	8.1%	16.6%	5.9%	9.2%	8.1%	7.8%	5.4%	17.9%	8.8%	11.3%	6.5%	11.1%	9.4%	10.5%	13.6%	6.9%
Furnishings & household equipment	3.9%	6.8%	-2.7%	5.8%	6.3%	2.1%	4.5%	11.8%	7.3%	9.1%	3.7%	5.6%	4.5%	6.0%	5.9%	5.5%
Health	6.3%	24.1%	10.5%	3.5%	7.2%	2.0%	2.9%	17.2%	7.1%	11.9%	11.5%	13.5%	11.4%	4.0%	n.a.	8.0%
Transport	6.3%	7.8%	4.2%	6.3%	6.5%	7.0%	4.3%	9.3%	8.2%	16.9%	5.7%	4.9%	4.9%	7.5%	8.9%	5.0%
Communications	-7.3%	-7.3%	-7.8%	-8.1%	-5.1%	-5.4%	-9.1%	-2.9%	-9.9%	-4.8%	-5.2%	-5.0%	0.6%	-8.2%	-17%	-20%
Recreation and culture	3.6%	15.8%	3.9%	3.1%	5.8%	2.3%	0.5%	5.7%	9.6%	7.7%	1.8%	3.7%	6.9%	5.4%	7.7%	7.3%
Education	13.3%	32.0%	21.4%	n.a.	9.6%	5.9%	7.6%	11.6%	14.1%	16.6%	42.5%	-22%	13.2%	20.1%	12.3%	18.4%
Restaurants and hotels	11.4%	20.7%	11.4%	10.9%	12.8%	6.5%	8.8%	16.7%	15.1%	15.5%	8.0%	9.7%	9.2%	8.1%	15.7%	11.2%
Miscellaneous goods and services	8.6%	22.5%	7.9%	7.9%	10.5%	7.1%	7.5%	11.9%	9.9%	16.7%	7.3%	5.2%	9.0%	13.4%	7.9%	6.8%
Goods	5.0%	9.3%	-3.4%	5.9%	7.5%	4.9%	5.2%	12.2%	9.8%	9.8%	3.3%	5.6%	5.2%	5.4%	10.9%	7.5%
Services	8.8%	21.1%	12.9%	6.9%	9.5%	5.2%	5.9%	11.6%	13.1%	16.5%	7.9%	7.4%	10.1%	10.6%	11.4%	9.6%

Source: Eurostat (PwC Derived)

Key messages emerging from the three year analysis are broadly consistent with those from the 12 month analysis. There are, however, a number of noteworthy distinctions, namely:

- three year inflation in the **food** and non-alcoholic beverages category of expenditure in Ireland was higher than in any other EU15 country – although the ratio of Irish inflation to EU15 inflation was as per the single year analysis;
- a review of rates of **services** inflation in Ireland and across the EU15 indicates some level of normalisation of Irish rates in recent months – the Ireland: EU15 ratio of services inflation standing at 1:2.4 in the three year period to end December 2002, compared with 1:1.9 in the 12 month analysis;

Annex 3: Traded and Non-Traded Classification

COICOP Level		
All Traded	1	<u>Food & Non-Alcoholic Beverages</u>
All Traded	1	<u>Alcoholic Beverages & Tobacco</u>
All Traded	1	<u>Clothing & Footwear</u>
	1	<u>Housing, Water, Electricity & Gas</u>
Non-Traded	2	Rents & Other Housing Costs
Non-Traded	3	Local Authority Rents
Non-Traded	3	Private Rents
Non-Traded	3	Mortgage Interest
	2	Maintenance & Repair of Dwelling
Traded	3	Materials for Maintenance
Non-Traded	3	Services for Maintenance
Non-Traded	2	Water Supply & Refuse Collection
	2	Household Utilities
Non-Traded	3	Electricity
Non-Traded	3	Natural Gas
Traded	3	Bottled Gas
Traded	3	Liquid Fuels
Traded	3	Solid Fuels
Non-Traded	3	Heat Energy
	1	<u>Furnishings & Household Equipment</u>
Traded	2	Furniture, Furnishings & Carpets
Traded	3	Furniture & Furnishings
Traded	3	Carpets & Floor Covers
Non-Traded	3	Repair of Furniture
Traded	2	Household Textiles
	2	Household Appliances
Traded	3	Major Household Appliances
Traded	3	Small Electric Household Appliances
Non-Traded	3	Repair of Household Appliances
Traded	2	Glassware & Tableware
Traded	2	Tools & Equipment for Home and Garden
Traded	2	Goods & Services for Routine Household Maintenance
Traded	3	Non-durable Household Goods
Non-Traded	3	Domestic & Household Services
	1	<u>Health</u>
Traded	2	Medical Products
Non-Traded	2	Outpatient Services

	1	<u>Transport</u>	
Traded	2		Purchase of Vehicles
	2		Operation of Personal Transport Equipment
Traded	3		Spare Parts & Accessories
Traded	3		Fuels & Lubricants
Non-Traded	3		Maintenance & Repair
Non-Traded	3		Other Services
Non-Traded	2		Transport Services
Non-Traded	1	<u>Communications</u>	
	1	<u>Recreation & Culture</u>	
	2		Audio-visual Equipment
Traded	3		Equipment for Reception/Recording
Traded	3		Photography & Cinema Equipment
Traded	3		Information Processing Equipment
Traded	3		Recording Media
Non-Traded	3		Repair of Audio-visual Equipment
Traded	2		Other Major Durables for R&C
Traded	2		Other Recreational Items & Equipment
Non-Traded	2		Recreational & Cultural Services
Traded	2		Newspapers, Books & Stationery
Non-Traded	2		Package Holidays
Non-Traded	1	<u>Education</u>	
Non-Traded	1	<u>Hotels & Restaurants</u>	
	1	<u>Miscellaneous Goods & Services</u>	
	2		Personal Care
Non-Traded	3		Hairdressing & Beauty Salons
Traded	3		Electric Appliances for Personal Care
Traded	3		Other Appliances for Personal Care
Traded	2		Personal Goods
Non-Traded	2		Social Protection
Non-Traded	2		Insurance
Non-Traded	2		Financial Services
Non-Traded	2		Other Services N.E.C.

Annex 4: Abbreviations

Euro area-12

B	Belgium
D	Germany
GR	Greece
E(S)	Spain
F	France
IE(IRL)	Ireland
I(T)	Italy
LU	Luxembourg
NL	Netherlands
AT	Austria
PT	Portugal
FI(N)	Finland

Ex-Euro area (but EU15)

S(E)	Sweden
DK	Denmark
UK	United Kingdom

EMU12	Euro area
EU15	European Union