

## Preface

This report has been prepared by the Skills and Labour Market Research Unit in FÁS for the Expert Group on Future Skills Needs. It represents a part of a series of monitoring reviews of the supply and demand in different economic sectors in Ireland. The primary aim of the report is to identify any current and future shortages of financial skills, as well as to put forward recommendations for future policy formulation in this area. The report provides detailed analysis of the labour market in the financial area, as well as the forecasts for the period 2003 to 2010.

The authors would like to express gratitude to the Central Statistics Office, the Higher Education Authority, the Department of Enterprise, Trade and Employment, the Department of Education and Science for the provision of data and assistance in the production of the report.

The accuracy of the data, as well as the views expressed in this report are the exclusive responsibility of the authors.

November, 2003

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## Table of contents

Table of contents	2
Executive summary	3
Introduction	7
1. Employment Trends in Financial Occupations	9
1.0 Introduction	9
1.1 Total Employment in Financial Occupations	10
1.2 The Distribution of Employment by Sector	11
1.3 The Financial Sector	13
1.3.1 The Domestic Financial Services Sector	14
1.3.2 The International Financial Services Sector - IFSC	14
1.4 The Distribution of Employment within the Financial Sector	17
1.4.1 Banking	19
1.4.2 Insurance	25
1.4.3 Other Financial Services	30
2. Methodology	39
2.1 Demand	39
2.1.1 Replacement demand	39
2.1.2 Expansion demand	40
2.2 Supply	43
2.3 Gap analysis	49
3. Forecast Employment and Skill Shortages	52
SOC 120: Treasury and Company Financial Managers	52
SOC 131: Bank, Building Society and Post Office Managers	55
SOC 139: Other Financial Institution and Office Managers	57
SOC 250-251: Chartered/Certified Accountants and Management Accountants	60
SOC 252: Actuaries, Economists, Statisticians	64
SOC 362: Taxation Experts	68
SOC 361: Underwriters, Claims Assessors, Brokers and Investment Analysts	71
SOC 130: Credit Controllers	76
SOC 410: Accounts and Wages Clerks, Book-Keepers, Other Financial Clerks	79
SOC 411: Counter Clerks and Cashiers	82
4. Summary and Recommendations	86
4.1 Developments Expected to Affect Future Demand and Supply of Financial Skills	86
4.2 Implications at the Occupational Level	88
4.3 Recommendations	89

## Executive Summary

### Introduction

The financial services sector experienced strong growth in 1990s. In 2002, almost 7 percent of the labour force in Ireland was employed in financial occupations. In order to examine future demand and supply of financial skills the analysis focused on the following sub-set of occupations:

- Treasury and company financial managers
- Bank managers
- Other financial managers
- Accountants
- Actuaries, economists, statisticians
- Taxation experts
- Underwriters, claims assessors, brokers
- Credit controllers
- Accounts clerks, bookkeepers, other financial clerks
- Cashiers, bank clerks

With faltering growth prospects for the Irish economy in the short run, the expansion in employment in all sectors is likely to be modest. Further down the time horizon, employment growth is expected to recover with a stronger performance forecast for the Irish economy beyond 2004. The provision of high-level financial skills has been and will remain instrumental in attracting foreign investment and is also central to the preservation of our reputation in the global financial domain.

### Demand Projections

Principal drivers of the future demand for financial skills include overall economic growth, regulation, technological change and the globalisation of the financial services sector.

Given the integration of financial skills across all sectors of the economy, the overall performance of the economy is particularly important for the future employment of those skills. In the short run, current forecasts of international, as well as Irish economic growth are less favourable than anticipated in last year's forecasts (i.e. 2002). The ESRI adjusted downwards output growth and employment growth to reflect weaker economic performance for the period 2003-2004. Therefore, it can be expected that employment growth across financial occupations will be correspondingly slower in the next two years. The recovery is expected to occur beyond 2004.

Importantly, not all occupations will be affected in the same manner by the general economic performance. Structural changes within the financial services sector, as well as in the rest of the economy will result in some occupations experiencing higher employment growth than average and vice versa.

The regulatory environment is another key factor determining future performance of the financial services sector and the associated employment demand for financial skills. The creation of the Irish Financial Services Regulatory Authority (IFSRA) will have implications for the employment of financial skills. It can be expected that the IFSRA will introduce mandatory qualifications affecting some financial occupations. In the short run, an introduction of mandatory qualifications could result in a shortage of regulated occupations. On the positive side, the regulatory changes are likely to produce a demand for new financial skills and enhance the stability and reputation of the sector overall.

Technological advances will continue to drive changes in the financial services sector. The automation of processes which reduce costs and improve the delivery systems for financial products is expected to remain an important determinant of future employment requirements. On the one hand, technological changes involving automation will reduce demand for some occupations. On the other hand,

the changes will create demand for a further synthesis of financial and IT skills, not only to use and maintain the information systems, but also to develop financial products.

Financial liberalisation is expected to progress further leading to an increase in competition in financial services provision globally. As a result, further mergers and acquisitions between financial institutions worldwide can be expected. In general, restructuring leads to loss of jobs, as companies seek to utilise economies of scale and curb costs. However, structural changes are expected to improve the performance of the industry and enhance future employment prospects.

On the whole, high level skills will be required in order to meet the demands of the financial services sector in the future. This is a direct result of the need to create higher value-added products and services in order to remain competitive on an international level.

Overall, the demand for financial skills is expected to be low in the short run and to recover beyond 2004.

### Supply Projections

In 2002, there were 60,000 persons undertaking at least some level of financial training or education. This figure encapsulates the total provision of training across all educational institutions in the country at all educational levels. In terms of professional training, there were 21,000 persons registered in accounting, 3,300 in insurance, 2,000 in banking, 1,900 in investment management, 1,500 in financial services, 950 in taxation, 500 in actuary and 100 in treasury courses. There were 1,800 students registered in economics and statistics related courses. The remaining 27,000 persons were enrolled in general finance, business or commerce related courses which contain finance related modules.

There has been a significant response to demands for particular skills by universities, private colleges, professional institutions and FÁS. The professional institutions have been and are expected to continue to be the key provider of specific financial skills. The establishment of the International Financial Institute of Ireland is also an important development in the provision of specialist skills in the financial services area.

In terms of quantitative forecasts of the future supply of financial skills, the following difficulties were encountered:

- lack of requirement for mandatory qualifications for most of the skills analysed,
- a high incidence of training through continuous rather than the initial education process,
- a wide variation in the time taken to attain qualification.

Each of these issues was dealt with in respect of each individual occupation.

Overall, in terms of the provision of financial skills, the market appears to be responding to the demand. The institutions that most notably responded to the market developments include universities, private colleges, professional institutions and FÁS.

### Gap Analysis

#### Treasury and company financial managers

Both quantitative and qualitative sources suggest that it is unlikely that there will be any shortages of treasury and company financial managers in the future, given that persons currently working in both the treasury and financial areas can be promoted to management level after a number of years of experience.

### Bank Managers

It was concluded from the analysis of the available sources that no shortages of bank managers can be expected in the coming years. In fact, it was pointed out that many branches have been closed and others are likely to be closed in the future, which will result in decreased demand for bank managers.

### Other Financial Managers

It was concluded from the analysis of the qualitative data that no shortages of financial managers are envisaged over the projection period 2003-2010.

### Accountants

The average number of persons emerging with accounting qualifications annually is higher than the forecast demand in the short-term. In the medium run, the demand is expected to increase, however no shortages are projected. Professional bodies have demonstrated their ability to increase supply as the need arises, as evident in the late 1990s. However, there are some indications that project accountants are currently difficult to source, and this is expected to continue to be an issue in the future.

### Actuaries, Economists, Statisticians

The outflow of graduate economists is expected to remain greater than the projected market requirement for persons to work as economists.

The supply of actuaries is identified as an area of concern. The actuarial population is relatively small and competition for them is at a global level. Moreover, many senior actuaries who move to consultancy and strategic management are proving increasingly difficult to replace.

### Taxation Experts

Comparing projected annual recruitment demand and the projections of the numbers completing professional taxation exams, it is concluded that no shortages of taxation experts can be expected in the coming years.

### Underwriters, Claims Assessors, Brokers

There are two main issues that need to be considered in respect of this occupational group. Firstly, with the changing financial environment, there is an increase in the demand for new financial products. However, this is not an immediate source of concern in terms of skills gaps as the sector is currently capable of providing extensive in-house training. Secondly, it is expected that the Irish Financial Services Regulatory Authority will seek to regularise qualifications in these occupations in the near future. It is expected that the implementation of a mandatory qualification requirements may create initial shortages in the regulated areas.

### Credit Controllers

From consultations held with recruitment agencies and industry representatives of the credit management sector, it was concluded that there are no shortages of skills for credit controllers. The skills required for work in this area are relatively modest and short on-the-job training is sufficient to prepare an individual with good generic skills to work as a credit controller.

### Accounts Clerks, Bookkeepers, Other Financial Clerks

From the interviews with financial sector representatives it was concluded that there are no shortages of skills for the accounts clerk, book-keeper and other financial clerk positions.

### Cashiers, Bank Clerks

From the quantitative analysis and the interviews with financial sector representatives it was concluded that no future shortages are envisaged, given that jobs in this occupation require relatively low skill levels.

## Summary

In the short run, employment growth is not predicted to be significant and the supply of skills appears to be sufficient to meet demand. Nevertheless, there are several areas which need to be closely monitored.

The results from the analysis suggest that there are some difficulties in sourcing actuaries, project accountants and quantitative modelers. Identified difficulties usually refer to the small number of people with specific skills within the occupation, rather than to the occupation in general. Moreover, in some cases it is the combination of particular skills that is lacking.

In the medium run, it can be expected that IFSRA will introduce some regulatory changes. It is likely that the Qualified Financial Adviser (QFA) qualification or similar qualifications will become mandatory across a widening range of occupations. It is possible that there will be some shortages in the short run following the introduction of such regulations.

The regulatory changes are also expected to address the concerns caused by recent financial scandals. This will have positive implications on the demand for compliance officers. The increasing presence of this occupation is reflected in the recent establishment of the Association of Compliance Officers in Ireland (ACOI).

Technological progress and increased dependency on automation and information systems will lead to a greater demand for IT skills in the financial services sector. The recovery of the IT sector is likely to intensify competition for IT skills across all sectors of the economy which may create difficulties in sourcing those skills for work in the financial area.

## Recommendations

- The changes in the financial regulatory environment and their implications on supply should be closely monitored
- The FÁS Traineeship for junior financial advisors in the insurance industry, currently run in Dublin and Dundalk, should be extended to the rest of the country
- The demand for actuaries should be closely monitored
- The portfolio of courses, offered by the new school in financial services at NCI should emphasise the development of combined skills

## Introduction

Since early 1990s, the financial services sector has been one of the most vibrant areas of the Irish economy. In 2002, there were 123,000 persons employed in financial occupations. This represents an increase of 33 percent on the level recorded in 1998. When compared with the overall employment growth for this period of 16 percent, this is a remarkable expansion. Of total employment in financial occupations in 2002, 40 percent was employed directly in the financial sector, while the remainder of 60 percent was employed elsewhere in the economy. Thus, high employment growth for financial skills recorded in recent times reflected an overall performance of the Irish economy, as well as some specific developments associated with the financial services sector. Among other factors, the latter refers to the expansion of the Irish Financial Services Centre (IFSC) and the establishment of Dublin as a globally recognised centre for financial intermediation.

This study represents a review of the demand and supply for financial skills covering the period 2002-2010. It provides forecasts for the recruitment requirement across selected financial occupations, including the expansion and replacement dimension. It also examines the provision of skills associated with selected occupations and discusses gaps and shortages of financial skills, as well as any related issues.

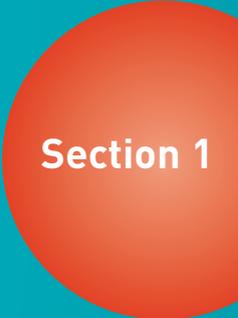
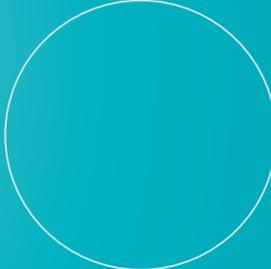
The demand forecasts were based on historical trends, most recently published sector employment forecasts and consultations with the industry representatives. The latter source provided information on the likely implications of the changes in regulatory, fiscal and technological areas on future demand.

On the supply side, the analysis included examination of trends in student enrolments in finance-related courses, the results from the first destination survey focusing on the graduates with finance backgrounds and the demographic structure of the population. Most importantly, the forecasts were based on the supply of financial professionals, the data supplied by the professional institutions which are a major provider of financial education and training.

The analysis included quantitative and qualitative sources. A numeric estimate of the skills gap is provided where it is possible to quantify supply. For skills where there was no identifiable source of supply, the results were based on the examination of vacancies and salary trends. The qualitative input in forecasting skill gaps were based on consultations with the industry representatives.

The report is structured as follows; Chapter I focuses on the historical employment trends in the selected financial occupations and discusses developments within the financial sector underlying these trends; chapter II provides a detailed overview of the methodology used to forecast future demand and supply of financial skills; Chapter III contains forecasts and gap analysis for each of the selected occupations; finally, Chapter IV provides a summary of the report and the recommendations arising from the analysis.

**Employment Trends in Financial Occupations**



# 1. Employment Trends in Financial Occupations

## 1.0 Introduction

The objective of this report is to examine future labour demand and supply of financial skills in Ireland. In order to do this, the analysis focuses on employment trends of a sub-set of ten 'financial' occupations. The occupations were chosen from the three digit Standard Occupational Code (SOC) system, through an assessment of the nature of the work involved and occupations requiring at least some level of financial skills were selected. The report focuses on the following ten key occupations:

- Treasury and company financial managers (SOC 120)
- Bank managers (SOC 131)
- Other financial managers (SOC 139)
- Accountants (including management accountants) (SOC 250/251)
- Actuaries, economists, statisticians (SOC 252)
- Underwriters, brokers, analysts (SOC 361)
- Taxation experts (SOC 362)
- Credit controllers (SOC 130)
- Accounts clerks, bookkeepers (SOC 410)
- Cashiers and bank clerks (SOC 411)

In this chapter, the occupations are analysed in three stages. Firstly, overall employment trends of the occupations are observed over time. Secondly, the proportion of persons in these occupations employed in the financial sector, as opposed to other sectors, is examined. Thirdly, the distribution of persons employed in these occupations within the financial sector is analysed in more detail by looking at the numbers employed in banking, insurance, etc. Each of these stages observes employment over the past five years.

The analysis does not focus on the financial sector in isolation because most financial skills are employed across the entire economy. In addition, the financial sector employs a number of occupations with non-financial skills. However, a detailed overview of the developments in the financial sector is provided in the report since the demand and supply of financial skills greatly depends on the performance of this sector. It is important to note that when there is a reference made to any financial sector employment, unless it is explicitly stated otherwise, this refers to financial sector employment in these ten financial occupations, and not the employment of the sector as a whole.

## 1.1 Total Employment in Financial Occupations

Employment in the ten financial occupations has been increasing significantly over the past five years. In 1998, total employment amounted to 93,275 persons. This increased to 123,600 by 2002, which is an increase of 33%. Total employment in Ireland grew by 16% during this period. Thus, financial occupations experienced a much greater increase in employment than that experienced overall in the economy.

Table 1.1 below displays employment trends by occupation in the past five years. The general trend across all occupations is one of consistent growth. However, the rate of growth has declined from the late 1990s, with employment growing by only 2% from 2001 to 2002 compared to almost 9% from 2000 to 2001. This is still higher than the overall employment growth rate of 1.3% during the same period, but the attenuation in growth is notable.

Table 1.1 Total Employment of Financial Occupations, 1998-2003 (000s)

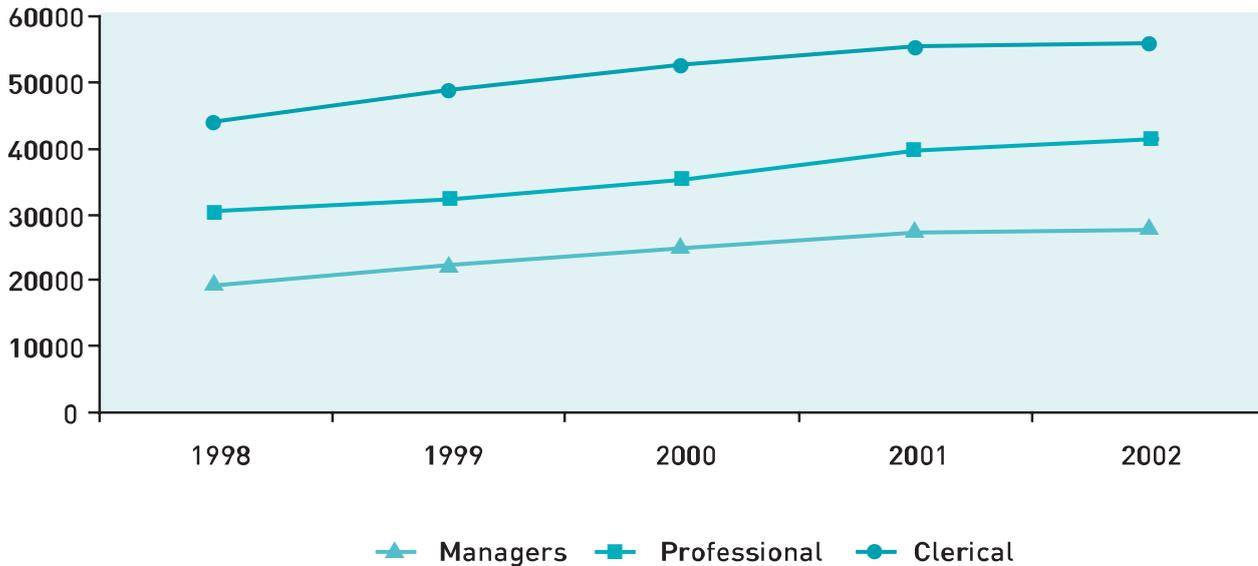
	1998	1999	2000	2001	2002
<b>Managers</b>					
Treasury and company financial managers	2.5	3.2	2.7	3.2	3.5
Bank, building society and post office managers	5.6	5.8	6.8	5.9	6.9
Other financial institution and office managers	11.2	12.5	15	18	17
Subtotal	19.3	21.5	24.5	27.1	27.4
<b>Professional/Associate Professional</b>					
Accountants	20.4	20.6	21.8	25	26.8
Actuaries, economists and statisticians	0.9	1.2	1.3	1.1	1.1
Underwriters, claims assessors, brokers, analysts	6	6.6	7.9	9.1	8.9
Credit Controllers	2	2.6	2.7	3.2	3.2
Taxation experts	0.9	0.9	0.9	0.9	0.8
Subtotal	31.9	34.1	36.9	42.1	40.8
<b>Clerical</b>					
Accounts clerks, bookkeepers, other financial clerks	20.8	22.2	24.2	27	27.6
Counter clerks and cashiers	23	26.4	28.4	28	27.8
Subtotal	44.9	49.8	53.9	56.2	56.4
<b>Total</b>	<b>93.3</b>	<b>102.0</b>	<b>111.7</b>	<b>121.5</b>	<b>123.6</b>

Source: Derived from QNHS data.

Figure 1.1 displays the employment trends of these occupations over time, grouped into three occupational levels: managerial, professional/associate professional and clerical. Clerical occupations, while represented by only two SOC codes, constitute the greatest proportion of the persons employed in the financial occupations (45% in 2002). Professional and associate professional occupations make up half of the 10 selected SOC codes, and comprise 33% of persons employed in these occupations. Financial managers have been coded under three SOC codes and comprise 22% of persons employed in the identified financial occupations.

<sup>1</sup> QNHS employment figures, annual averages for 1998-2002.

Figure 1.1 Employment Trends of Financial Occupations by Level, 1998-2002



Source: Derived from QNHS data.

Employment growth has been most striking for the management occupations, which experienced 42% growth from 1998 to 2002, rising from 19,300 to 27,400. Professional financial occupations experienced sizeable growth also, increasing from 30,175 in 1998 to 40,800 in 2002, which represents an increase of 35%. Clerical occupations also experienced substantial growth (26%), growing from 43,800 in 1998 to 55,400 in 2002.

In recent times, however, it is the professional occupations that have experienced the highest levels of growth. From 2001 to 2002, professional and associate professional occupations increased from 39,375 to 40,800, which represents an increase of 3.6%. In comparison, managerial occupations grew from 27,100 to 27,400 (a 1% increase) and clerical occupations rose by 0.7%, from 55,000 to 55,800.

### 1.2 The Distribution of Employment by Sector

Table 1.2 below displays the numbers and proportion of each occupation that is employed in the financial sector. Overall, almost 40% of the persons employed in the 10 identified 'financial' occupations are employed within the financial sector, which is a significant minority. While it may appear surprising that the majority of 'financial occupations' are in fact employed outside of the financial sector, it confirms that financial skills are necessary across sectors. The financial sector is, however, the most common sector for persons working in these occupations to be employed.

<sup>2</sup> The 'financial sector' refers to NACE code J.

Table 1.2: Employment Distribution of Persons Employed in Financial Occupations, 2002

	Total Emp. (000s)	Emp. in FS (000s)	% in FS	% Outside of FS
<b>Managers</b>				
Company financial managers	3.5	1.0	27.5	72.5
Bank etc. managers	6.9	6.2	88.8	11.2
Other financial managers n.e.c.	17.0	4.5	26.5	73.5
Subtotal	27.4	11.7	42.8	57.2
<b>Professional/ Associate Professional</b>				
Chartered & certified accountants	26.8	3.5	13.1	86.9
Actuaries, economists, statisticians	1.1	0.7	59.1	40.9
Underwriters, claims assessors & analysts	8.9	7.7	86.2	13.8
Credit Controllers	3.2	0.83	26.2	73.8
Taxation experts	0.8	0	0.0	100.0
Subtotal	40.8	12.73	31.2	68.8
<b>Clerical</b>				
Accounts clerks, other financial clerks	27.6	6.3	22.7	77.3
Cashiers bank & counter clerks	27.8	18.5	66.7	33.3
Subtotal	56.3	24.8	44.8	55.2
<b>Total</b>	<b>123.6</b>	<b>47.7</b>	<b>38.6</b>	<b>61.4</b>

Source: Derived from QNHS data.

The occupations in which the majority of persons are employed in the financial sector are bank managers, actuaries, economists, statisticians, underwriters, claims assessors, brokers, investment analysts and cashiers. This is to be expected, as these occupations constitute a major portion of employment in banking, insurance and auxiliaries to financial intermediation, which are the three NACE sub-sectors of the financial sector .

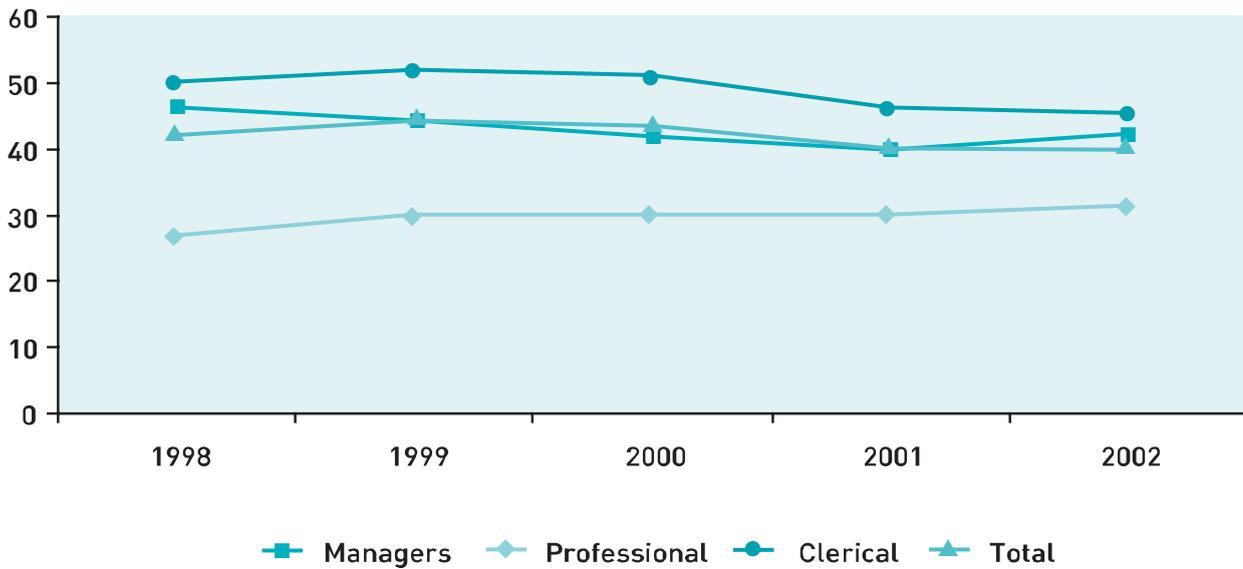
Figure 1.2 displays the percentage of persons employed in these financial occupations that are located within the financial sector, to give an indication of the significance of the financial sector as an employer of persons in these occupations. The average across all occupations has remained approximately 40% over the period.

The proportion of financial managers employed in the financial sector declined steadily from 1998 to 2001, falling from 46% to 40%. This was due to rapid expansion in employment of financial managers in non-financial sectors. There was, subsequently, an increase in the proportion employed in the financial sector in 2002, bringing the level up to over 42%. Overall, employment of financial managers did not increase during this period, but there was an increased demand within the financial sector, specifically in banking.

The proportion of professional and associate professional workers located in the financial sector increased from 27% in 1998 to approximately 31% in 2002.

<sup>3</sup> These occupations made up 47% of total persons employed in the financial sector (NACE code J) in the fourth quarter of 2002.

**Figure 1.2 The Percentage of Persons in Financial Occupations Employed in the Financial Sector, 1998-2002**



Source: Derived from QNHS data.

The percentage of clerical financial workers employed in the financial sector has declined in the past two years. From 1998 to 2000, approximately half of all persons employed in clerical financial occupations were employed in the financial sector and this has declined to 45% in 2002. This is mainly due to employment growth in clerical occupations outside of the financial sector, although there has been a slight decline in the numbers employed within the financial sector.

In general, financial occupations have been experiencing increases in employment in the past five years. Thus, a decline in the proportion of persons employed in the financial sector does not imply a decline in overall employment in the financial sector; rather, in general, it signifies growth in employment for these occupations in other sectors of the economy.

Employment in the financial sector does, however, account for a significant proportion of employment in financial occupations, particularly at the clerical and managerial level, and less so at the professional and associate professional level.

### 1.3 The Financial Sector

In terms of financial skills requirements, the performance of the financial sector and its sub-sectors has been and will continue to be of crucial importance. Over the past decade there has been a rapid growth in the major financial markets and this has been reflected in an expansion of the financial services industry in many countries. In Ireland, the industry has become a significant contributor to employment and value added and has shown real growth in recent years.

**Value Added:** A key measure of the direct contribution of financial services to the Irish economy is its contribution to value added. The value added by the financial services sector is over 5% of Gross Domestic Product (GDP) (Financial Services Industry Association (2003)).

**Employment:** Currently, over 60,000 people are directly employed in the sector with a further 25,000 persons employed indirectly in various support services. Over the last 12 years employment has grown by close to 70% and direct employment in the IFSC alone stands at around 11,000 people (Financial Services Industry Association (2003)). The increase in direct employment over the last twelve years reflects the strengthening of the industry during this period, notwithstanding the extensive introduction of new technology and against a background of falling or static employment numbers in most EU member states.

**Salaries:** The industry directly contributes about €3.6 billion to the economy in wages and salaries and in spending on goods and services. Of the €3.6 billion, the industry's annual wage bill amounts to €1.8 billion. The financial services sector contributes approximately €1.3 billion per annum to the Exchequer in various forms of tax revenue, including income tax (Financial Services Industry Association 2003).

**Balance of Payment:** The international financial services industry made a net contribution of €2.4 billion to Ireland's balance of payments from both services and investment in 2002. The balance of payments statistics show that the sector generated a surplus of €0.4 billion on international trade in services and €2.1 billion in investment income (CSO (2003)). The value of financial services (the third biggest earner) increased strongly in 2002, rising to €3.3 billion in 2002 from €3.0 billion in 2001 – an increase of 13.4%. Dublin's off-shore IFSC merits particular attention. Involved in the provision of a range of financial services, including leasing, insurance and fund management, the IFSC accounted for 27.7% of total services exports in 2002 (Financial Services Industry Association (2003).

### 1.3.1 The Domestic Financial Services Sector

The financial services sector in Ireland is comprised of a domestic sector and an international sector. Ireland has had a long established tradition of providing financial services in the banking, insurance and asset management industry.

### 1.3.2 The International Financial Services Sector - IFSC

International financial services sector has been usually referred to as a jewel in the crown of Ireland's economy over the past decade. In 1987, the Irish Government established the IFSC in Dublin's central Custom House Docks area with the aid of a special 10% corporate tax rate and certain other benefits. Although the 10 per cent tax rate expires in 2005, it has been decided to introduce a universal corporate tax rate of 12.5% from the start of 2003. This initiative was launched in response to the rapid growth of the financial services industry world-wide. It is one of the most tangible manifestations of the favourable economic environment and 'Celtic Tiger' phenomenon over recent years.

The IFSC is largely responsible for the world-wide reputation Ireland now enjoys as a centre of excellence in the provision of financial services. The success of the IFSC has been closely inspected as a model for other developing financial centres. The Centre has provided a hub around which a world-class support network has grown, encompassing software development, telecommunications, shared services centres and legal and accountancy skills. It has also served as a focus to attract the best and brightest of Ireland's young talent into the industry.

#### Principal Activities carried out in the IFSC:

- The IFSC has developed into a world-class centre for a wide range of internationally traded financial services and their ancillary services. The principal activities carried out in the IFSC include:
- Banking, Asset Financing and Leasing
- Corporate Treasury and Management
- Fund Management, Investment Management, Custody and Administration
- Futures and Options Trading
- Insurance, Assurance, Reinsurance, Captive and Broking
- Other new opportunities identified by the Irish Government in Irish financial services are e-Business and pan-European pensions

However, any other activity that can be broadly described as a financial service, which will create substance, may also qualify. These activities must be carried out on behalf of non-residents and in non-Irish currencies.

In the sixteen years since its foundation, the IFSC has been a demonstrable success. For example,

- In total, there are over 400 international institutions directly operating from Dublin with a further 1,000 managed entities carrying on business under the IFSC programme (IDA (2003)).
- The IFSC now ranks as one of the leading locations worldwide for international banking, investment funds, corporate treasury and insurance activities. It is host to more than half the world's top 20 insurance companies and to more than half the world's largest banks (IDA (2003)).
- Total IFSC bank assets were valued at a €229 billion as at September 2002, an increase of 14% on the same period the previous year; the net asset value of Irish authorised collective investment schemes in 2002 were valued at €304 billion and the total number of schemes grew to 3,300 (Central Bank (2003)).
- The total net asset value of total funds administered in Ireland amounted to €434 billion as of June 2002 (€99.7 billion as of June 1998). (Dublin Funds Industry Association (DIMA) (2003)).
- The number of authorised Irish domiciled investment funds currently stands at nearly 1,000 (over 3,000 counting sub-funds) and their total net asset value comes to almost €400 billion as of August 2002 (Central Bank (2003)).
- The IFSC has also been a driving force behind the physical rejuvenation of the north inner city. The successful development of the Custom House Docks Area has provided the foundation for the ongoing development of the wider Docklands area (IDA (2003)).

The creation of a vibrant financial services industry has played an important role in repositioning Ireland as a centre for knowledge-based industries. The presence of successful front-office financial services industries in Ireland helps to attract shared services centres (IDA (2003)).

### Critical Factors Underlying the IFSC's Development

**Pro-Business Environment.** A critical factor underlying the IFSC's development has been the commitment by successive governments since 1987 to its development as an international financial centre. This is a further manifestation of the consistently favourable political will towards inward investment since the late 1950s. This commitment is epitomised by the expedient manner in which regulatory and taxation legislation has been amended and introduced in recent years in order to improve the IFSC's attractiveness to global players.

The regulations applying to IFSC companies have been designed to facilitate their activities within the EU and the Organisation for Economic Co-operation (OECD) jurisdictions, while still maintaining high international standards of regulation and supervision. The legislature and regulators have also proven themselves responsive to the demanding needs of an innovative industry. Successive governments have recognised the importance to the Irish economy of fostering an environment which is supportive of industry, and of providing appropriate infrastructures. The Irish Financial Services Regulatory Authority is the single regulator of all Irish financial institutions.

**An Attractive Fiscal Regime.** Ireland offers one of the most attractive corporate tax environments in the world. Profits derived from qualifying services were subject to a tax rate of 10% until 31st December 2002. From 1st of January 2003, a corporation tax rate of 12.5% applies to Irish trading profits in all sectors, including manufacturing and international services. The 10% rate will still apply to certain internationally traded services and until the end of year 2005 in the case of IFSC and the Shannon Zone area. The tax position of companies carrying out approved activities prior to 31st July 1998 will remain unchanged. Table 1.3 compares Ireland's low rate of corporation tax with that of other EU member states.

The maintenance and expansion of Ireland's tax treaty network is an important aspect of the business environment for industry. Double Taxation Agreements ensure that profits are not subject to double taxation in the home country. Ireland has an extensive network of tax treaties with other EU member states and members of the OECD (Ireland has signed 42 agreements and 8 agreements are under negotiation or awaiting ratification). Where there is no tax treaty in place with a particular country, there are provisions within the Irish Taxes Acts which allow unilateral credit relief against Irish tax for tax paid in the other country in respect of certain types of income (i.e. dividends and interest).

**Table 1.3 Corporation Tax Rates (Manufacturing and Qualifying Services), 2002**

Country	Corporation Tax Rate (%)
Ireland	12.5
UK	30.0
France	34.3
Netherlands	35.0
Spain	35.3
Germany	38.9
US	39.5
Belgium	40.2

Source: Deloitte & Touche 2002.

A generous scheme of capital allowances allows companies to write off immediately 100% expenditure on equipment and owner-occupied buildings used for the purpose of the financial services activity.

**Cluster effect.** An important factor in the success of the IFSC was the clustering of the international financial activity in a hub which generated a critical mass for the establishment of Dublin as one of the globally recognised centres for financial intermediation.

**Industry Association and Government Partnership.** A high degree of enthusiasm from the existing financial services industry is also in strong evidence. Industry associations such as the Financial Services Industry Association (FSIA), Dublin Funds Industry Association (DFIA), the Dublin International Insurance and Management Association (DIMA) and the various policy review groups are examples of the co-operation, which exists both within the industry and between industry practitioners and the relevant authorities.

Indeed, this interactive and progressive partnership between government bodies and industry practitioners, which has been a basis of IFSC development policy to date, has been instrumental in many innovations within the IFSC programme.

**Provision of skills.** The availability of a young, flexible and highly educated workforce has been one of the cornerstones of the IFSC's growth. Table 1.4 shows that Ireland has the youngest workforce among EU countries. Ireland's population reached 3.9 million in April 2002 and 38% of the population is under 25 years of age. Because of the demographic profile of the population, Ireland has invested heavily over the last three decades in the educational system. There are approximately 1 million full-time students in Ireland with 123,000 students at third level, the joint highest percentage in the OECD (OECD 2001).

**Table 1.4 Future Availability of Workforce in 2010**

Country	Percentage Population Under 25
Ireland	35.5
UK	31.0
France	30.1
Netherlands	28.7
Portugal	28.6
Germany	24.4
Spain	24.3
USA	34.2
Japan	25.3

Source: United Nations.

#### Other Advantages

- EU and OECD membership
- Freedom to locate operations anywhere in Ireland
- International air transport infrastructure
- Ireland is the only English speaking member of the Euro-zone
- Competitive cost base
- High professional standards
- Financial services expertise in law, tax and accounting

#### 1.4 The Distribution of Employment within the Financial Sector

The financial sector can be broadly divided into three sub-sectors (NACE codes 65-67):

- Banking
- Insurance
- Auxiliary to financial intermediation (other financial services).

Banking includes credit institutions such as banks, building societies, credit unions and mortgage lenders. Insurance includes all insurance and pension funding institutions. The final category, auxiliary to financial intermediation, usually referred to as other financial services, includes all persons employed in activities supplementary to banking and insurance, such as insurance brokers, independent fund administrators and stockbrokers.

The CSO has overall employment figures for banks, building societies and insurance in its quarterly Banking, Insurance and Building Societies: Employment and Earnings, but this statistical release contains no details regarding occupations. Quarterly National Household Survey (QNHS) employment data is collected at the two-digit NACE sub-sector. It provides enough detail that useful observations can be made.

Table 1.5 below shows the number of persons employed in the ten financial occupations by financial sub-sector.

**Table 1.5 Distribution of Employment in the Financial Sector, 2002**

	Financial Sector Employment			Total FS
	Banking	Insurance	Other 000s	
<b>Managers</b>				
Treasury and company financial managers	0.8	*	*	1.0
Bank, building society and post office managers	6.0	*	*	6.2
Other financial institution and office managers	2.6	1.4	0.5	4.5
Subtotal	9.4	1.4	0.5	11.7
<b>Professional/ Associate Professionals</b>				
Accountants	2.3	0.6	0.5	3.5
Actuaries, economists and statisticians	*	0.3	0.3	0.7
Underwriters, claims assessors, brokers, analysts	2.0	3.3	2.3	7.7
Credit controllers	0.7	*	*	0.8
Taxation experts	*	*	*	*
Subtotal	5.0	4.2	3.1	12.3
<b>Clerical</b>				
Accounts clerks, other financial clerks	2.8	3.0	*	6.3
Counter clerks and cashiers	18.3	*	*	18.5
Subtotal	21.1	3.0	*	24.8
<b>Total Financial Occupations</b>	<b>35.5</b>	<b>8.7</b>	<b>3.6</b>	<b>49.2</b>
<b>Total Financial Sector Employment</b>	<b>47.1</b>	<b>18.0</b>	<b>5.9</b>	<b>71.0</b>

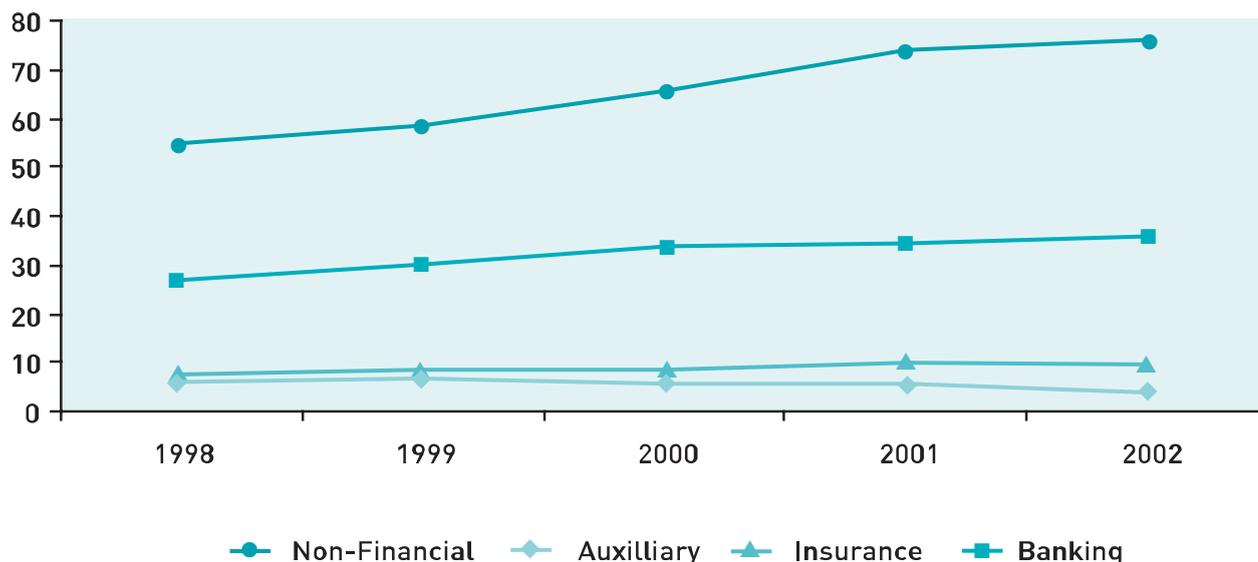
Source: Derived from QNHS data.

Note: \*Less than 300 persons employed.

Employment trends of financial occupations differ greatly by financial sub-sector and by occupational level. This is examined in greater detail below.

Figure 1.3 displays overall employment trends for all ten financial occupations by financial sub-sector. The number of persons from the specified financial occupations employed in banking has steadily increased since 1998, rising from approximately 26,000 in 1998 to 35,400 in 2002. The rate of growth has decreased in the last two years, however. Employment in insurance has increased slightly from approximately 7,000 in 1998 to 9,000 in 2002; employment peaked in 2001 with approximately 9,600 persons employed. Employment in other financial services sub-sector has gradually declined since 1999, falling from 5,000 in 1999 to less than 4,000 in 2002.

Figure 1.3 Total Employment Trends in Financial Occupations by Financial Sub-Sector, 1998 - 2002



Source: Derived from QNHS data.

This graph highlights that while employment in the ten financial occupations has increased over the past five years, this growth has not been experienced equally by all financial sub-sectors. Only the banking sub-sector has experienced consistent growth; the insurance and auxiliary sub-sectors remained fairly stable or experienced a decline. The decline in employment in the insurance sector is not supported by information provided by industry representatives. The indications from the industry are that the insurance sector has been performing well recently and that it is unlikely that any contraction in employment has occurred. The data provided by the CSO could be subject to sampling error and some of the growth in the banking sub-sector employment could include employment data that refers to the other two financial sub-sectors.

Each of the main sub-sectors (banking, insurance and other financial services) of the financial services sector in Ireland is examined in turn below. Firstly, within the banking sub-sector, banking, securitisation and the corporate treasury sector are examined. Secondly, within the insurance sector both the life and non-life sectors of the insurance sector are examined and finally, the funds and asset management sectors are examined in the context of the other financial services sector.

### 1.4.1 Banking

Within the financial sector, banking is the largest employer, employing 47,100 persons, which is two thirds of all persons employed in the financial sector. The high number of persons employed in banking can be understood in light of the large proportion of clerical workers employed in this sub-sector.

Recent developments in each of the main sectors that collectively form the banking sub-sector are examined in detail below.

#### Banking

Of the 90 banks and subsidiaries currently authorised to conduct business in Ireland, the vast majority are foreign banks or majority-owned subsidiaries of foreign banks. This level of market penetration by foreign banks is very high by EU standards. A further 191 credit institutions have notified the Central Bank of Ireland of their intention to provide services into Ireland on a cross-border basis from other EU member states.

Apart from banks, there are three building societies in Ireland. One of these (ICS Building Society) is owned by Bank of Ireland while the other two (EBS and Irish Nationwide) are mutually owned. Building societies are traditionally specialised mortgage lending institutions, although the Building Societies Act, 1989 allowed them to diversify into other banking activities.

There are two savings banks in Ireland. The Post Office Savings Bank is owned by the Government and is a deposit-taking institution whose deposits are all loaned to the Government. The other is a trustee savings bank (TSB) and is mainly concerned with retail lending and money transmission. In addition, there are other banks such as: ACC Bank, Permanent TSB Bank, First Active Bank and the Irish Nationwide, AIB and Bank of Ireland.

Employment in the banking sector has shown steady, consistent growth over the last decade or so. More than 5,000 new recruits were taken on during 2001 alone. The clearing bank groups accounted for over 86% (31,300) of the total number of employed in the sector in 2001. While these bank groups still account for bulk of employment in the sector, the non-clearing banks have also been a major source of new employment.

The contribution of banks to the Irish economy accounted for 4% of GNP in 2001, up from 3.5% in 1998. In terms of the contribution of banking to the national economic performance (total assets of credit institutions as a percentage of GDP), Ireland is ranked second in the EU after Luxembourg (Irish Banker's Federation's (IBF's) "Review of Activities 2002").

The importance of the industry overall to the Irish economy is manifested in other ways too, including the following:

- The worldwide assets of the Irish clearing bank groups stood at €215.5 billion in 2001 compared to €50.8 billion in 1991 (this represents a significant increase of 324%).
- Banks spent €3.3 billion in Ireland during 2001 on services, salaries, capital projects, etc. Of this, €1.7 billion went in the form of wages and related payments.
- Through Pay-as-You-Earn (PAYE), Pay Related Social Insurance (PRSI), Value Added Tax (VAT), Corporation Profits Tax and other taxes, banks contributed in excess of €1 billion to Government revenue in 2001 (IBF 2002).

The ensuing internationalisation of Irish banking is evidenced by the fact that whereas at the end of the 1980s most banks operating in Ireland were Irish-owned and predominantly domestic oriented (with almost 80% of their assets with respect to Irish residents), by the end of the 1990s the majority of banks in Ireland were foreign or subsidiaries of foreign banks and 58.5% of credit institutions' assets were with respect to non-residents as illustrated in Table 1.6.

**Table 1.6 Resident and Non-Resident Asset Shares, 1989 and 2002**

Assets of credit institutions vis-à-vis:	1989		2002	
	million	%	million	%
Residents	28,208	77.8	197,098	41.5
Non-residents	8,070	22.2	277,530	58.5
<b>Total</b>	<b>36,278</b>	<b>100</b>	<b>474,628</b>	<b>100</b>

Source: Central Bank Bulletin, various issues.

Banking in the IFSC. The IFSC banking sector has been at the core of the Centre's development since the IFSC was established in 1987. Many of the world's largest major international banks as well as the principal Irish banking institutions have established operations in the IFSC. Almost all credit institutions operating in the State have also been approved to conduct international business from the IFSC. The majority of the licensed banks in the IFSC concentrate on granting relatively low-risk, low-margin credit facilities to high-quality international corporate customers, central and regional governments and banks. For the most part, funding is obtained from wholesale sources and from parent banks.

The following are some of the typical banking activities that are carried out in the IFSC:

- Asset financing/aircraft leasing/sales aid financing
- International lending and loan syndication's
- Bank treasury operations
- Mutual funds management and administration
- Bond and commercial paper issuance
- Back office operations
- Management of client treasury functions
- Securitisations
- Credit card operations
- Provision of a range of sophisticated banking products
- Custodial/Trustee and administrative Services to the Mutual Funds Industry

The international banking sector continued to increase in 2002 despite the uncertain economic climate. The health of the sector was demonstrated by the continued growth in IFSC bank assets and capital over the year. According to the Central Bank, at the end of November 2002 total IFSC bank assets stood at €232.6 million demonstrating a year on rise of 10.2% compared with the November 2001 figure of €208.1 million.

### Securitisation

Securitisation has become an increasingly important and widely-used method of business financing throughout the world. Securitisation can be broadly defined as the process whereby loans, receivables and other financial assets are pooled together, with their cash flows or economic values redirected to support payments on related securities (i.e. liquid financial assets are converted into tradable capital market instruments by the individual). These securities, which are generally referred to as 'asset-backed securities' (ABS), are issued and sold to investors – principally, institutions in the public and private markets by or on behalf of issuers, who utilise securitisation to finance their business activities.

The financial assets that support payments on ABS include residential and commercial mortgage loans (residential mortgage backed securities (RBMS) and commercial mortgage backed securities (CMBS)) as well as a variety of non-mortgage assets such as trade receivables, credit card balances, consumer loans, lease receivables, automobile loans, and other consumer and business receivables. Although these asset types are used in some of the more prevalent forms of ABS, the basic concept of securitisation may be applied to virtually any asset that has a reasonably ascertainable value, or that generates a reasonably predictable future stream of revenue. As a result, securitisation has been extended to a diverse array of less known assets, such as insurance receivables, obligations of shippers to railways, commercial bank loans, health care receivables, obligations of purchasers to natural gas producers, and future rights to entertainment royalty payments, among many others.

The rise of institutional investors increases the demand for such assets, while improvements in technology and in financial markets makes it easier to create them. This enables companies to tap international securities markets and raise funds at a lower cost than traditional financing methods.

Issuance in the European securitisation market reached another record year in 2002, totalling €157.7 billion, and 2.7% higher than the €153.6 billion issued in 2001. Investors sought the relative safety of securitised debt in response to economic uncertainty and instability in the global equity markets. However, the securitisation volume growth slowed in 2002, as the number of downgrades increased and concerns regarding corporate credit exposure lessened demand.

There has been considerable growth in the Irish securitisation market over recent years both in the volume of transactions and variety of deals that are now being done through Ireland. Ireland has become a popular jurisdiction for locating Special Purpose Vehicles (SPVs) for securitisation and other structured finance transactions. Securitisations of a wide variety of asset classes have taken place, including synthetic and cash flow Collateral Debt Obligations (CDOs), RMBS, CMBS and trade receivables financing.

In 2002, securitisation in Ireland accounted for 1.0% of the European securitisation market, while in 2001 it accounted for 2.3% of the European market. The volume of securitisation in Ireland totalled €1.6 billion in 2002, down 55.1% from the €3.56 billion issued in 2001. Most of the decrease can be attributed to the RMBS sector, where issuance totalled €0.52 billion in 2002, down 71.6% from €1.83 billion in 2001. While, new issuance of ABS totalled €1.08 billion, down 37.6% from €1.73 billion in 2001.

Current industry statistics reveal that although the number of Irish securitisation operations has fallen in 2002, the industry overall has posted positive figures. In September 2002, the deal size of Irish originators stood at €0.7 billion, down from 2001's high of €2.3 billion. However, the market in SPV jurisdiction recorded excellent growth in 2002, up from €3.75 billion in 2001 to €4.65 billion in September 2002. The number of issuers has doubled from 11 to 22 this year alone.

The main factors contributing to Ireland's attractiveness for securitisation activity include:

- Specific legislation with low tax on SPV (important for tax neutrality of vehicle)
- Well regulated environment
- It is possible, by using the new regime for securitisations as introduced by the Finance Act 1999, to securitise a much wider range of assets than is possible using the IFSC regime
- The fact that it is not necessary to apply to the Certification Advisory Committee of the Department of Finance (where the 1999 Act regime is used) has also served to simplify the process involved in bringing one of these deals to closure
- Onshore EU location (an ever-increasing number of originators and arrangers are not prepared to utilise SPVs in 'off-shore' jurisdictions such as the Bahamas and the Cayman Islands)
- Excellent tax treaty network (important for inbound cashflows and withholding taxes)

A new development in this area was the launch of the first issue of a Pfandbrief-style bond under Irish law by the IFSC based DEPFA bank in February 2003. Pfandbrief bonds are low risk bonds collateralised by public sector or mortgage loans. Ireland is the latest country to develop an asset-backed bond market along the lines of the German Pfandbrief, now the eurozone's biggest fixed income market, estimated to be worth €1,200 billion.

Irish covered bonds were established under the Assets Covered Securities Act, 2001. This Act established a regime for the issuance of securities by designated credit institutions. The securities are secured on pools of public credit or mortgage assets, which are ring-fenced from the designated credit institution's other creditors.

### Corporate Treasury Industry in Ireland

The management of Corporate Treasuries is one of the most active sectors in Ireland's financial services industry. Over 200 major international companies use the IFSC as a centre for global treasury activities, such as the following:

- Inter group lending/financing
- Exchange and interest rate risk management
- Active management of group liquidity
- The provision of sales-aid financing
- Cash pooling, netting, cash management
- Cross-border leasing
- Bond and commercial paper issuance

Corporates operating standalone treasury centres in the IFSC include Black and Decker, Ericsson, Tyco and IBM. Although the ending of the ring-fenced IFSC regime in 1999 meant that the 10% tax rate is no longer available for newly establishing treasury centres locating in Dublin, services providers are continuing to see substantial demand from corporates wishing to set up treasury operations under the general corporation tax regime in Ireland.

According to the Department of Finance, no new agency treasury companies were established in 2000 and 2001 and four new captive finance companies were authorised in 2001. These new captive finance companies are: Boston Scientific International Finance Limited; Diebold Global Finance Centre Limited; SAGIFC and Sea Containers Finance Ireland. During 2001, XL Europe's Dublin branch beat off internal competition from other XL offices to be chosen as the location of a new European corporate treasury operation for the group. Other treasury outsourcing providers include AIB, Bank of America, Bank of Ireland, Ulster Bank and ABN AMRO in the IFSC (Finance Dublin 2002).

Many corporate treasury companies include corporate treasury activities as part of their financial shared services centres (FSSCs). Continuous economic globalisation has resulted in international corporations centralising their finance operations in one location. In tandem with the IFSC regime, the Department of Finance has also operated a manufacturing and shared services special corporation tax rate of 10% which are applied to financial shared services centres. However, a 12.5% tax rate is now applied and the system has led to Ireland becoming a centre of choice for the centralised European finance function over the last few years with companies like Whirpool, PepsiCo, Allergan and Accenture basing FSSCs in Ireland. According to the IDA Ireland, Ireland offers companies with shared services a reduction in corporate administration and services of up to 50%. This is achieved through a combination of reduced overheads, economies of scale and a competitive cost environment.

The IFSC offers multinational companies a range of attractions which have made Dublin one of Europe's leading centres for treasury activities.

- A low corporate rate tax (a 10% rate until 31 December 2002, from 1 January 2003, a rate of 12.5% applies)
- Tax treaty network
- No withholding taxes
- Comprehensive range of banking activities
- Wide range of professional service providers in taxation, legal and other services

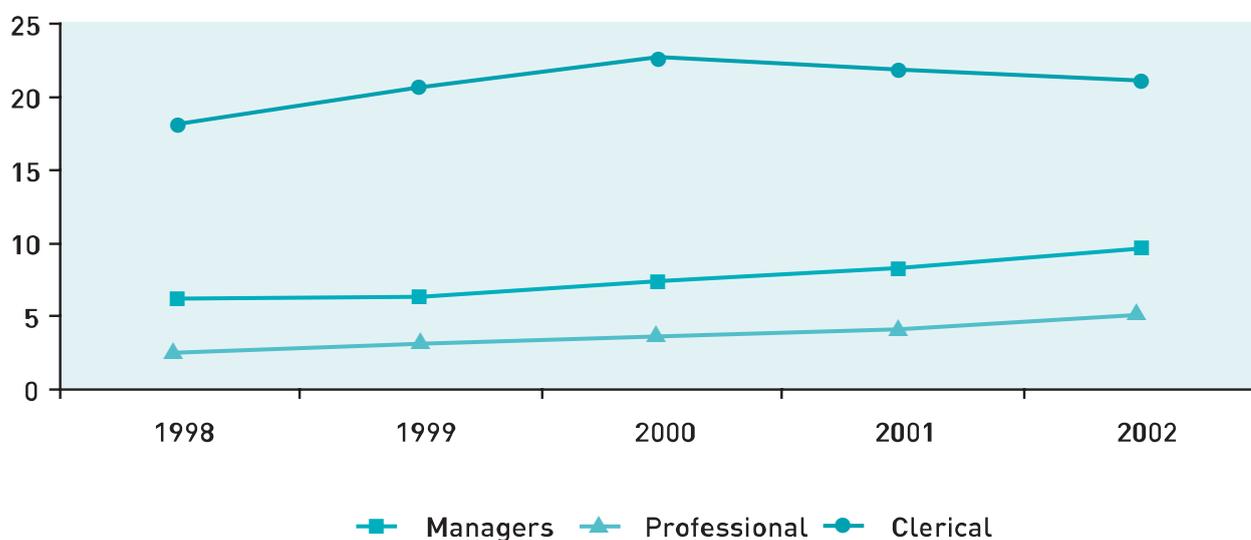
In summary, the main findings of the banking sector's performance which were primarily based on desktop research and through consultations with various professional organisations are summarised as follows:

- Employment in the banking sector has shown steady, consistent growth over the last decade
- The worldwide assets of the Irish clearing bank groups increased by 324%

- The international banking sector continued to perform strongly in 2002 despite economic uncertainty in the global economy
- The number of Irish securitisation operations has fallen in 2002, however the industry overall has posted positive figures; the market in SPV jurisdiction recorded excellent growth in 2002.
- Ireland launched the first issue of a Pfandbrief-style bond in February 2003.

The effects of key developments in the banking, securitisation and corporate treasury sectors in Ireland described above are reflected in employment trends by broad occupational categories in the banking sector over the period 1998 to 2002 in Figure 1.4. Employment has increased for persons employed at a managerial, professional or clerical level in the banking sector over the period. Employment increased by 3,300 for persons employed at a managerial level (54%), 2,800 for persons employed at a professional level (131%) and by 3,000 (17%) for persons employed at a clerical level over the period. The increase in employment for persons employed at a managerial and professional level is mainly due to the overall positive growth recorded in the banking sector. In particular, there has been increased labour demand for persons with strategic management skills in response to increased competition in the sector. Persons employed in clerical positions decreased by 500 persons from 2001 to 2002. It is expected that the share of clerical occupations within the total employment of the banking sector will continue to decline in the future, reflecting the increase in automation of administrative systems driven by ICT.

**Figure 1.4 Employment in Banking, 1998-2002 (000s)**



Source: Derived from QNHS data.

It must be noted that, the banking sector relative to the insurance and other financial services sectors accounts for a significantly higher proportion and wider variety of different types of managers. For example, the sector employs treasury and financial managers and bank and building society managers. Some of the professional occupations included in the professional occupational grouping include various types of analysts, such as credit, business and investment analysts, economists, accountants, mortgage brokers and credit controllers. For the clerical occupational grouping, counter clerks and cashiers comprise of the bulk of total clerks in the sector.

### 1.4.2 Insurance

The insurance sector follows as the second largest employer, with 18,000 persons employed (25% of the financial sector employment). The distribution of the financial occupations differs greatly in insurance compared to banking. Professional and associate professional occupations comprise the largest group in the insurance sector. This is due to the significant number of underwriters and claims assessors employed in the sector.

Ireland has had a long established insurance industry, with more than 150 years tradition of insurance writing. This sector was further developed with the establishment of the IFSC. As a direct result of the establishment of the IFSC, this sector has experienced dramatic growth over recent years and has now evolved into one of the principal activities of the IFSC. Today, Dublin is a leading location for international insurance activities and is home to more than half the world's top insurance companies.

The insurance industry in Ireland is categorised as either life or non-life. There are seven different classes of life assurance and eighteen different classes of non-life insurance. Table 1.7 below gives a breakdown of the structure of the life and non-life insurance sectors in Ireland.

The insurance industry in Ireland continues to post positive growth trends. There was extensive merging activity in the late 1990s. In the course of 2002, authorisations were granted to 13 new insurance companies (11 in 2001), 1 life (4 in 2001) and 12 non-life (7 in 2001). Statistics released by the Department of Enterprise, Trade and Employment reveal continued year on year increases in the industry which illustrates that insurance companies in Ireland have proved remarkably resilient in the current economic climate with challenges such as record losses, inadequate premiums, falling share value and investment income and capacity restraints. According to the 2001 Insurance Annual Report, which was published by the Department of Enterprise, Trade and Employment, total premium income received by head offices and branches in Ireland amounted to €18.93 billion, approximately a 7% increase on 2000 figures. Of the total, €13.6 billion was generated by life companies (this represents 72% of total premium income) while €5.33 billion was generated by non-life companies, representing 28% of total premium income. Total premium income as a percentage of GDP decreased from 17.2% in 2000 to 16.5% in 2001 (life 11.8% and non-life 5.2% as a percentage of GDP in 2001).

<sup>4</sup> Examples of this merging activity can be found in AXA (which absorbed PMPA and Guardian), Commercial General Union (which acquired Norwich Union's insurance branch and Hibernian) and Allianz (which acquired 66.3% of AGF Irish Life, which owned Church & General and Insurance Corporation of Ireland).

Table 1.7 Structure of the Insurance Industry in Ireland

Life Insurance Sector	
1. Commercial Life Assurance	Authorised head office and single administrative base to launch life and pension products in European and offshore markets.
2. Risk Securitisations and Risk Derivatives	Establishment of Special Purpose Vehicles for securitisation of financial assets.
3. Outsourcing Arrangements	Subject to satisfying the requirements of the regulator, companies can outsource certain activities to approved service providers. This is particularly useful for efficient start-ups.
Non-Life Insurance Sector	
1. Commercial Non-Life Insurance	Authorised head office and single administrative base to launch a range of non-life products.
2. Commercial Reinsurance	Global reinsurance activities, including ART, financial reinsurance and conventional reinsurance combining fiscal incentives and lower operating costs to build strength of balance sheet.
3. Captives and Captive Management	Direct writing or reinsurance companies covering all risks including employee benefits. Usually managed by a specialist captive insurance management service provider
4. Risk Securitisations and Risk Derivatives	Established of Special Purpose Vehicles for securitisation of financial assets.
5. Outsourcing Arrangements	Subject to satisfying the requirements of the regulator, companies can outsource certain activities to approved service providers. This is particularly useful for efficient start-ups.

Source: IDA, Ireland.

### Life Insurance

The data in Table 1.8 highlights the performance of the Insurance Industry in Ireland. Life assurance companies represented the greatest proportion of premium increases, generating a value of €13.6 billion in 2001, an increase of 2.7% on the previous year (€13.2 billion). Total gross premium income in respect of Irish Risk Business amounted to €8.1 billion in 2001 (€7.9 billion in 2000) while IFSC life assurance premiums 'Foreign Risk Business' amounted to €5.5 billion in 2001 (€5.31 billion in 2000, €3.43 billion in 1999). Total gross new business premiums amounted to €11.2 billion (€10.7 billion in 2000), of which €5.6 billion related to Irish risk business (5.5 billion in 2000). New single premium business remained the same as in 2000 at €10.1 billion, while new annual premiums increased by 39% during the same period.

**Table 1.8 Key Performance Data for the Insurance Industry in Ireland, 2000-2001**

Key Performance Data Overall Insurance Sector		
	2000	2001
Insurance Undertakings in Ireland of which:		
Head Offices	180	203
Branches	48	51
Branches outside EEA	2	2
Companies writing here on an FOS basis	518	530
Total Premium Income of which	€17.71 billion	€18.93 billion
Life	€13.24 billion	€13.6 billion
Non-Life	€4.47 billion	€5.33 billion
Non-Life Business		
Gross Premium Income	€4.47 billion	€5.33 billion
Irish Risk	€2.81 billion	€3.43 billion
Foreign Risk	€1.66 billion	€1.90 billion
Net Underwriting Result – Irish Risk	(€453 million)	(€390 million)
Investment Income – Irish Risk	€292 million	€317 million
Technical Account – Irish Risk	€161 million	€73 million
Irish and Industrial Assurance		
Gross Premium Income	€13.24 billion	€13.6 billion
Irish Risk	€7.93 billion	€8.1 billion
Foreign Risk	€5.31 billion	€5.5 billion
Gross New Business Premiums of which	€10.96 billion	€11.2 billion
Single Premium	€10.17 billion	€10.1 billion
Annual Premium	€0.79 billion	€1.1 billion

Source: Insurance Annual Report 2001, Department of Enterprise, Trade and Employment.

Table 1.9 analyses the growth in IFSC life assurance premiums over the last decade. The data reveals that IFSC life assurance premiums “Foreign Risk Business” increased by 5% to €5.6 billion in 2002, compared to €5.4 billion in 2000 and €3.4 billion in 1999. There should be no surprise at the significant rate of growth of life assurance writing in 2000, given that approximately 30% of IFSC companies authorised in 1999 (the final year for data on IFSC certificate approvals) were for life assurance and non-life insurance companies. This increase in new insurance companies has fed into the figures, resulting in substantial growth in the sector during 2000 and in the rise in the number of companies writing international business from Ireland. However, in 2001 there was only a 5% increase in the IFSC’s life assurance premiums for ‘Foreign Risk Business’. This largely reflects the contraction of insurance activity globally in 2001.

**Table 1.9 The IFSC's Life Assurance Progress, 1992-2001**

Year	Life Assurers Writing Foreign Risk Business	Premiums (€ millions)	% Change
1992	2	68.0	
1993	4	95.4	40%
1994	4	199.3	109%
1995	9	239.2	20%
1996	14	417.0	74%
1997	16	848.1	103%
1998	18	1,822.2	115%
1999	25	3,364.7	85%
2000	33	5,336.5	59%
2001	36	5,599.1	5%

Source: Insurance Annual Report 2001, Department of Enterprise, Trade and Employment.

The top five companies with head offices in Ireland writing foreign risk business include Sanpaolo Life, Scottish Mutual, St. James' Place, Grow Life and Barclays. In 2002, the position of the largest foreign risk life business was held by Sanpaolo Life while the largest Irish writer of life was Irish Life. During 2003, 2 new life assurance companies were authorised by the Department of Enterprise, Trade and Employment. These were Darta Savings Life Assurance Limited and UBS International Life Limited.

The attraction of Ireland as a base for international life insurance activities is based on a combination of factors which include:

- Tax-free investment income to life policy holders
- 'Gross roll-up' taxation basis for all life companies in Ireland
- Withholding tax exemptions on most interest and dividend payments
- No insurance or reinsurance taxes or levies

### Non-Life Insurance

Total non-life gross premium income written in Ireland in 2001 amounted to €5.33 billion, representing an increase of 19% on 2000 figures. Irish risk business increased by 22% while foreign risk business increased by 14.5%. The comparatively lower growth of foreign risk business reflects, among other factors, the impact of the Department of Enterprise, Trade and Employment's prudential limitation on the level of inward reinsurance written by direct writers to 20% of total premium. In addition, the annual Dublin International and Insurance Management Association (DIMA) statistics for 2001 revealed that the non-life sector has grown steadily. These statistics, compiled from 84 of DIMA's members (insurers, reinsurers and captives) indicate that premiums written in 2001 increased by 43% to €10.1 billion and had assets of €30.7 billion at the end of the year (up 42% on the 2000 level).

The net underwriting result for Irish Risk Business of the non-life market in 2001 showed a 14% improvement on 2000 figures with a loss of €390 million in 2001 (a loss of €453 million in 2000). By comparison, the net underwriting result for Foreign Risk Business showed a 181% increase on 2000 figures with a profit of €256 million in 2001. Total income from investments attributable to the underwriting account amounted to €412 million. This led to a profit on the technical account of €278 million (€53 million in 2000), which represented a 425% increase on the previous year.

Since the formation of the first IFSC captive in 1989, the number has grown and the DIMA now boast a captive population in excess of 220. Dublin based captives can write directly throughout the EU, an advantage not available in the traditional 'offshore' captive locations. This is a direct result of the EU's Third Directive, which was implemented in the early 1990s. This legislation opened the doors to 'single passport' cross-border trading. This means that an insurance company based in Ireland can sell in another EU Member State without having to establish a local presence in that state. US-owned captives have found this a particularly valuable facility.

The captive management industry in Dublin underwent some consolidation throughout 2001. Aon Insurance Managers acquired International Risk Management Group (IRMG) early in the year creating the second largest captive management operation in the world and having an impact on the two respective Dublin offices .

In summary, the following are the main findings regarding the insurance sector:

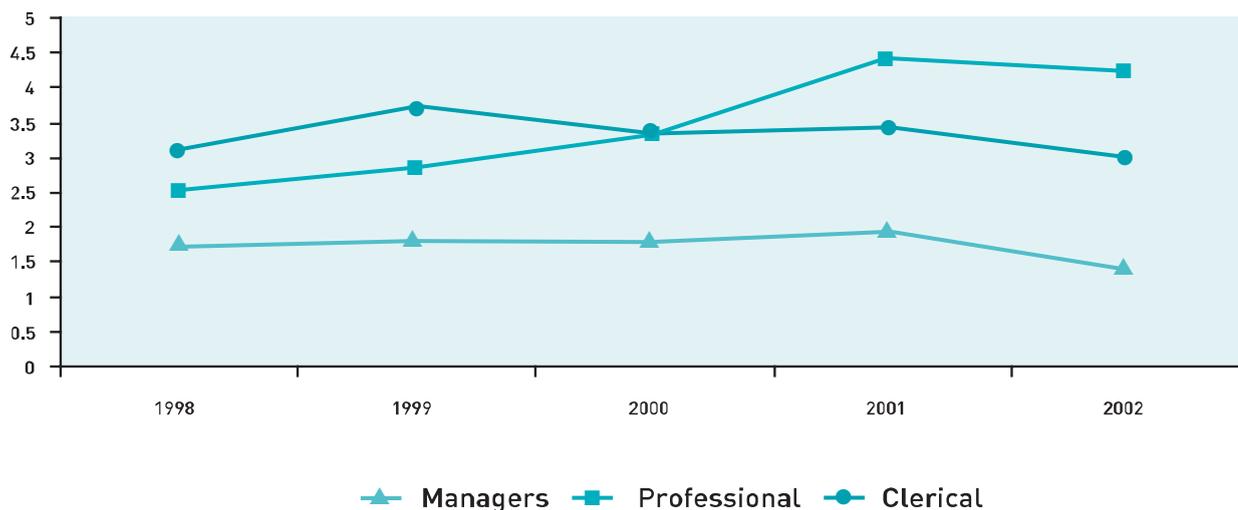
- There was extensive merging activity in the late 1990s.
- 13 new insurance companies were set up in 2002, compared to 11 in 2001. The number of insurance undertakings in Ireland increased from 180 in 2000 to 203 in 2001.
- Total premium income generated in 2001 was €18.93 billion, which is a 7% increase on the 2000 figure. Growth in IFSC life assurance premiums slowed in 2001 to 5%, compared to 30% growth the previous year.
- Premium increases have proven to be insufficient to cover losses - the net underwriting result for Irish risk business in the non-life market in 2001 was a loss of €390 million
- There has been a rapid increase in the number of captives located in Ireland since the formation of the IFSC.

Against this background, the employment trends in the insurance sector are examined.

Figure 1.5 shows employment trends by broad occupational groupings in the insurance sector over the period 1998 to 2002. Persons employed as managers in the sector decreased from 1,700 persons in 1998 to 1,400 persons in 2002 (representing a decrease of 17.6%). The reduction began after 1999 and can be attributed to restructuring following mergers and acquisitions that occurred in the sector over the period as described above. In the case of clerical workers, the number of persons employed increased by 600 persons from 1998 to 1999 and decreased to 3,000 persons in 2002 (which represents an overall decrease of 3.2%). This decrease can be partially attributed to merging activity. However, there has also been a decrease in labour demand for clerical workers in response to the increased use of automated systems in the sector. This decrease in demand was partially offset by the increased labour demand in response to increased customer care service activity in the sector.

Employment for professional workers increased from 2,500 persons employed in 1998 to 4,200 persons in 2002 (an increase of 68%). There was consistent growth in employment of persons employed in professional insurance occupations. This was in response to the buoyant growth recorded in the sector until 2001. After 2001, the market tightened and employment appears to have declined slightly. Some smaller insurance companies have closed their offices and Independent insurance collapsed in 2001. The number of jobs lost, however, is more than offset by the number of new companies setting up.

<sup>5</sup> Aon also merged with Sinser (Ireland) Ltd in October 2001.

**Figure 1.5 Employment Trends in the Insurance Sector, 1998-2002**

Source: Derived from QNHS data.

### 1.4.3 Other Financial Services

Auxiliary to financial intermediation or other financial services broadly refers to independent financial companies, such as brokers and independent fund and asset management companies. This sub-sector employs 5,900 persons (8% of the financial sector) mainly constituted by SOC 361. While the insurance sector employs underwriters and claims assessors, this sub-sector employs brokers and investment analysts.

#### Mutual Funds Administration

Where a group of people pool their money to gain the benefits of being a single, larger investor, this is referred to as an Investment Fund or a Collective Investment Scheme. The combined might of this group of people allows them to invest in a wider range of financial products, to spread the risk, to consult experts to advise them and specialists to look after their investments. These specialists and experts collectively make up the Investment Funds Industry and they invest, account for, administer and manage investment funds in leading global investment centres like Dublin's IFSC. Within the investment funds industry there are three types of players: the fund promoter, who markets and sells the investment opportunity to potential investors, the fund manager who makes the investment decisions to try an increase the value of the fund, and thirdly the fund administrator.

Dublin is now regarded as one of the fastest growing investment funds centres in the world. The Irish and international funds services companies in the IFSC include many of the world's largest financial institutions and together they service from Dublin up to \$350 billion dollars of funds (DIFA (2003)). A noticeable trend has been for institutions which may have existing facilities in other countries where there are labour shortages and or where high operating costs pose serious problems, to establish complementary IFSC operations to take advantage of Dublin's large pool of labour and lower operating costs. To date, groups such as Barings, LGT, Deutsche etc. have taken this step. There are now over 100 service providers who provide fund administration, custody/trustee services, fund management and other specialised services in Ireland. Over 250 fund promoters have Dublin based funds as part of their distribution strategy, including many of the world's most significant players.

While there are some fund promoters and managers based in Dublin, the main focus of the Dublin funds industry is the administration of funds. Dublin has a global reputation in the provision of accounting and administrative services, as well as the provision of shareholder services to Mutual Funds.

Dublin domiciled and non-domiciled funds increased by 41% in 2001 to reach €407.7 billion and increased by 6.4% in 2002 to reach €434 billion. In 2002, 66.3% of the total was in Dublin domiciled funds, with the remainder in non domiciled funds. Both sectors rose but the fastest growth was seen in the domiciled sector which rose by 27.1% (non-domiciled funds rose by 6.2%). This is the flip coin of the situation in 2001, when the non-domiciled funds rose by over a third in value in 2001.

Irish registered collective investment schemes continue to grow and increased by 6.9% in 2002 from €284.2 billion to €303.9 billion. The rate of growth has slowed however, as Net Asset Values (NAVs) grew by 36% in 2001 and by 39% in 2000.

The number of funds registered in Ireland also increased, with 430 new funds registered in 2002. The total number of Irish registered collective investment schemes grew to 3,300. This growth marks a 15% increase on the figure of 2,870 for 2001. However, the rate of growth has slowed down from 20% in 2001 and 22% in 2000.

Undertaking for Collective Investment in Transferable Securities (UCITS) fund structures grew by 11% in 2002, and represent 78% of all funds authorised or €238.5 billion.

Table 1.10 illustrates that statistics from the Central Bank reveal that the number of investment schemes for all categories of investment types over the period 2001 to 2002 increased, with the exception of non-designated investment companies' schemes. The number of designated investment companies' schemes increased by 21.7% followed by UCITS investment schemes with 16.2%.

**Table 1.10 Number of Collective Investment Schemes Approved Authorisations, 2000-2002 (including sub-funds) (€millions)**

Type of Fund	Total Funds (incl. Sub-funds)		
	2000	2001	2002
UCITS	1,344	1,640	1,905
Unit Trusts	410	468	494
Designated Companies	559	729	887
Non-gated Companies	40	31	12
Investment Limited Partnerships (ILPs)	2	2	2
<b>Total</b>	<b>2,355</b>	<b>2,870</b>	<b>3,300</b>

Source: Central Bank of Ireland, Quarterly Bulletin, Winter 2002.

There has been significant growth in funds under administration and custody in the various companies. In 2001, for example, Credit Agricole, Indosuez, BNP Paribas and Goldman Sachs all developed their fund administration activities.

The hedge fund sector has been driving much of the growth of the funds industry in Ireland. Hedge funds are becoming more and more part of the mainstream types of investment (both institutional and retail). The key drivers of the growth in hedge funds are the continued globalisation of financial markets, the increasing sophistication and demands of the marketplace (especially institutional requirements and the potential for greater returns even in falling markets), and the upheaval and intense review of the international and domestic regulatory environments, driven by the need for transparency and accountability. Global hedge funds reached US\$600-700 billion as of January 2002, and is predicted to reach US\$2 trillion by 2010. Currently the hedge fund market accounts for a tenth of the size of the traditional funds marketplace. At the end of 2001, Dublin had become one of the major global centres for hedge fund administration. It is estimated that over €100 billion worth of hedge fund assets are under administration in Dublin. Ireland is also, a leading domicile for Exchange Traded Funds and these types of funds will continue to be significant drivers of the overall sector growth in the future. Money market funds have also contributed to the significant growth of the industry over the years.

The IFSC presents the international mutual funds Industry with a unique set of attractions as a domicile for funds and a centre from which to administer, market and service funds in all other international locations. The following are some of Ireland's key attractions of the IFSC that led to the significant growth in this industry:

- A reduced 10% tax rate is applicable to non-collective investment undertakings, fund managers, administrators, investment advisers and custodians
- A comprehensive range of Tax Transparent Fund Structures (A complete exemption from Irish taxation for authorised collective investment undertakings (including Undertaking for Collective Investment in Transferable Securities (UCITS))
- No Irish Capital Gains Tax on Funds gains
- No duty on the registration, issue or transfer of shares, units of interests
- No tax on net asset valuation
- No Value Added Tax on fund management services
- A wide choice of international funds administrators, custodians and trustee service providers
- Stock Exchange listings (The Irish Stock Exchange is prepared to list not only funds domiciled in Ireland but funds from all jurisdictions/Irish domiciled funds and non-domiciled funds may also seek a listing on the Irish Stock Exchange)

A report by Pricewaterhouse Coopers, commissioned by the Federation of the European Investment Funds Industry, revealed that discriminatory tax measures in most European Union member states were preventing the development of a real single market in investment funds. The report looked at the tax discrimination faced by European fund managers trying to sell UCITS across borders in the EU and found that many of the tax rules identified could be illegal under EU law because they discriminate against foreign funds. One of the main positive developments during 2001 was the removal of a block the Spanish authorities had imposed on the sale of domiciled funds. Dublin domiciled funds can now sign distribution agreements for their products with Spanish participants. As a consequence, promoters of Dublin domiciled funds now have access to one of the largest European funds markets and now many promoters are preparing to enter the Spanish market.

The Central Bank's position on Prime Brokers changed in 1999. This has helped to boost Ireland's hedge fund attraction. Fund promoters have increasingly sought to establish Irish institutional hedge funds that comply with prime brokers and this has proved the most promising basis for establishing hedge funds in Ireland.

The Dublin Funds Industry Association has highlighted that cross border funds are more popular internationally than local market funds – 'Euroland and global funds are the way forward and fund manufacturers must use this information to their advantage'.

Political agreement was reached to update the UCITS Directive in October 2000. The Irish funds industry had been concerned by the proposed capital requirements and restrictions on the delegation of management functions in the draft UCITS Directive. Implementation of UCITS III was seen as a major challenge and opportunity for the industry in 2002. The proposals relating to capital adequacy requirements and the issue of delegation by management companies to third parties and the introduction of a simplified prospectus were all agreed with the removal of the contentious delegation proposal. The scope of the UCITS amendments should enhance Ireland's position as a domicile for internationally distributed investment funds.

### Asset Management

Historically, asset management activity was contained within banks and insurance companies. However, in recent years, the asset management function has developed as a distinct and separate function through the establishment of subsidiaries and independent operations, and asset management is now recognised as an industry in its own right. Irish asset managers, through the Irish Association of Investment Managers (IAIM) are founding members of the European Association of Asset Managers which was established in the last 5 years, and its existence reflects the increasing recognition, throughout Europe, of the discrete function of asset management.

Asset Management companies are the interface between the individual/corporate clients and the financial markets. Asset Managers purchase, hold and sell securities for investment purposes, on behalf of their clients. The service of asset management is provided to clients in a number of different ways, primarily through pooled or mutual fund or on a bespoke basis. As a key component of the financial services industry, asset management creates many other activities which service its requirements. For example, custody, stockbroking and back office activities such as fund administration.

Asset Management has grown over the last 15 to 20 years to become a major segment of the Global Financial Services Industry. In 1999, global assets under management were estimated at €33 trillion. The growth of the asset management industry has been based on the need to service the monies of individuals, governments, public agencies, banks, pension funds, insurance companies and charities, to name but a few.

Table 1.11 shows the type and value of assets managed on behalf of pension funds, insurance companies and mutual funds in seven main European countries and the USA in 1999. The total assets detailed in this table - €23.7 billion - account for over 70% of the estimated total of €33 trillion at that time.

Most assets under management in Ireland are currently managed by members of the IAIM, on behalf of Irish residents and non-domestic clients.

**Table 1.11 Assets under Management for Eight Countries, 1999 (€billion)**

Country	Pension Funds	Insurance Companies	Mutual Funds
France	66	830	705
Germany	129	673	515
Ireland	47	32	150
Italy	65	169	412
Netherlands	397	220	83
Spain	32	62	219
UK	1,270	1,266	345
<b>Total</b>	<b>2,006</b>	<b>3,252</b>	<b>2,429</b>
USA	7,225	2,403	6,388

Source: Irish Association of Investment Managers.

The amount of assets managed by Irish based asset managers had been boosted by the arrival of Pioneer (previously named Europlus), which established an operation in Ireland under an IFSC licence in 1998 and also Bank of Ireland Asset Management (BIAM) which, as an indigenous business, has successfully gathered assets from non-residents sources for managing in Ireland.

Assets under management on behalf of Irish residents amounted to €66 billion in December 2002 and increasingly there is a trend for such assets to be managed outside Ireland. This trend reflects the increased globalisation of the industry, as asset managers in all jurisdictions vie with one another for mandates. In addition, more than 80% of the National Pension Reserve Fund has been allocated to asset managers based outside Ireland. Also, there is an increasing trend whereby multinationals are restructuring the assets of their pension funds in European countries and the retention of these assets by Irish based asset managers is dependent on their ability to complete to a global standard.

The asset management industry in Ireland is faced with the threat that this seepage of assets, to be managed elsewhere, will continue. While there are no reliable statistics available on the amount of assets relating to Irish residents (or liabilities) estimated to be managed outside Ireland, these are still in the majority. Notwithstanding this, Ireland has proved to be a productive centre of asset management. The success in either attracting new corporate entities (e.g., Pioneer) or client monies by established Irish based managers (e.g., BIAM) confirms the appropriateness of Ireland as a centre for this activity.

Asset management is a key component of the financial services industry and it creates potential for leverage, by attracting suppliers to the industry e.g., custodians, stockbrokers and investment bankers, as well as senior executives of investee companies. The larger the pool of assets in a location, the greater the frequency of visits by leading corporate executives to that location in order to meet with investors and potential investors. This in turn has the potential to provide many new introductions to Government/IDA as part of their foreign direct investment (FDI) marketing programme. In 2001 alone, CEOs and other senior executives representing 282 multinational corporates visited Ireland to meet with existing or potential institutional investors.

Table 1.12 illustrates the growth in assets under management by the IAIM members on behalf of domestic and international clients over the period 2000 to 2002. Over this period, total assets under management by the IAIM on behalf of Irish residents decreased by 13.3%, while assets managed on behalf of international clients increased by 15.3%. Total assets managed on behalf of domestic and international clients amounted to €202 billion at the end of December 2002, this represents a 10.5% decrease on the 2001 figure recorded (of which €66 billion and €136 billion were assets managed on behalf of domestic and international clients respectively). During the period 2001 to 2002, assets managed for both Irish and International Clients decreased by 13.0% and 9.2% respectively.

**Table 1.12 Assets Managed on behalf of Irish and International Clients 2000-2002 (€Million)**

	Dec 2000	Annual % Change	Dec 2001	Annual % Change	Dec 2002	Annual % Change
Irish Residents	75,847	3.7%	75,586	-0.3%	65,726	-13.0%
International Clients	118,247	10.9%	150,185	27%	136,298	-9.2%
<b>Total</b>	<b>194,094</b>	<b>8.0%</b>	<b>225,771</b>	<b>16.3%</b>	<b>202,024</b>	<b>-10.5%</b>

Source: Irish Association of Investment Managers.

Table 1.13 illustrates the value of various categories of assets under management by the IAIM on behalf of Irish clients only over the period 2000 to 2002. In 2002, decreased growth was recorded for all types of assets managed on behalf of Irish clients with the exception of other assets which primarily comprises of general insurance, corporates and building societies funds.

In 2002, total investment by Irish clients through IAIM increased by 15% to reach €65.7 billion. Over €40 billion was invested by Irish clients in pensions funds which represents 62% of total investments, followed by €15.2 billion in Life funds (representing 23.2% of total funds in 2002. These two types of investments account for the bulk of Irish investments (85%).

**Table 1.13 Assets Managed on Behalf of Irish Residents Only 2000-2002 (€Million)**

	December 2000	December 2001	Annual % Change	December 2002	Annual % Change
Pensions	48,442	47,586	-1.8%	40,502	-14.9%
Charities/Religious	1,686	1,701	0.9%	1,542	-9.3%
Life Funds	18,181	18,466	1.6%	15,233	-17.5%
Private Clients	1,383	1,365	-1.3%	1,051	-23.0%
Tracker Bonds	1,008	1,070	-6.2%	957	-10.6%
Other*	5,146	5,619	9.2%	6,441	14.6%
<b>Total</b>	<b>75,847</b>	<b>75,586</b>	<b>-0.3%</b>	<b>65,726</b>	<b>-13.0%</b>

Source: Irish Association of Investment Managers.

Note: \* Primarily General Insurance, Corporates and Building Society Funds.

Table 1.14 analyses the geographical distribution of assets invested for Irish and international clients during the period 2001 to 2002. Over the period, equities accounted for the bulk of total assets under management by IAIM members on behalf of Irish and international clients. Fixed income, cash, property and other assets accounted for the remaining proportions of total assets in descending order of magnitude. In 2002, equities accounted for 53% of total assets under management by IAIM members. Of this, 13% were invested for Irish clients, 16% were invested for clients in the Euro area (excluding Ireland) and the remaining 24% was invested for clients in the non-Euro area. Equities were followed by fixed income assets which accounted for 31% of total assets managed by IAIM members. Of this, 7% and 23% were managed on behalf of Irish and Euro area clients respectively and 1% was managed on behalf of non-Euro area clients. Cash accounted for 9% of total assets. Of this, 4% and 1% were managed on behalf of Irish clients and international clients, respectively. Property assets managed for Irish clients accounted for 4% of total property assets, while assets managed on behalf of Euro and non-Euro clients accounted for 1% of total assets respectively.

**Table 1.14 Geographical Distribution of Assets Invested for Irish and International Clients 2001-2002(€Million)**

Type of Asset	December 2001	December 2002
Equities	61%	53%
Irish	16%	13%
Euro (excluding Ireland)	17%	16%
Non-Euro Area	28%	24%
Fixed Income	27%	31%
Irish	8%	7%
Euro (excluding Ireland)	17%	23%
Non-Euro Area	2%	1%
Property	5%	6%
Irish	4%	4%
Euro (excluding Ireland)	0%	1%
Non-Euro Area	1%	1%
Cash	6%	9%
Irish	3%	4%
Euro (excluding Ireland)	2%	1%
Non-Euro Area	1%	1%
Other	1%	1%
Irish	1%	1%
Euro (excluding Ireland)	0%	0%
Non-Euro Area	0%	0%

Source: Irish Association of Investment Managers.

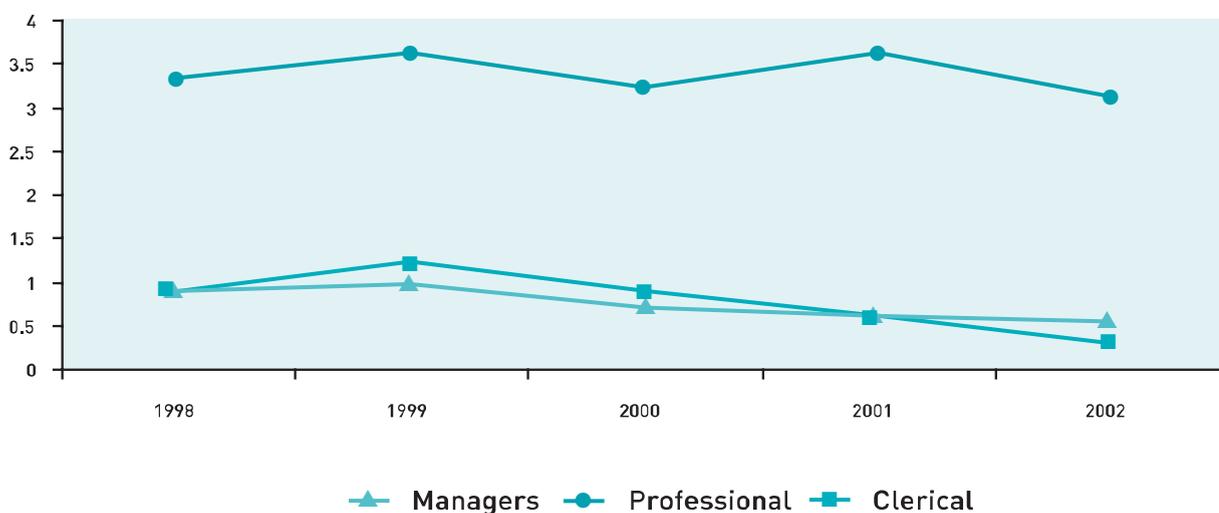
Overall, recent developments in the other financial services sub-sector can be summarised as follows:

- Sharp slowdown in growth of Dublin domiciled and non-domiciled funds
- Sharp slowdown in growth of Irish registered collective investment schemes
- Slowdown in growth of number of new registered funds
- Good performance of the hedge funds sub-sector
- Movement of assets to be managed outside Ireland
- Decrease in assets managed on behalf of domestic and international clients

In general, there has been a slowdown in activity in the financial intermediation, which had negative implications on employment trend in the sub-sector. Figure 1.6 shows employment trends by broad occupational groupings in the other financial services sector over the period 1998 to 2002. Employment for persons employed in managerial, professional and clerical occupations decreased over the period. The most significant decrease in employment was recorded for persons employed in managerial and clerical occupations. The number of persons employed in managerial occupations and clerical occupations decreased by 400 persons and 900 persons respectively over the period.

The data suggests that a remarkably low number of clerical staff are employed in this sub-sector. There is a possibility that the figures presented are an underestimate and that a significant proportion of clerical staff have been accounted for in the banking sub-sector.

**Figure 1.6 Employment Trends in Other Financial Services, 1998-2002**

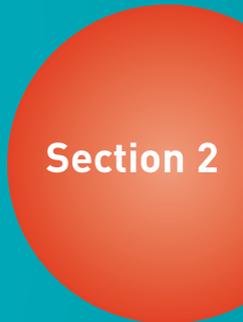


Source: Derived from QNHS data.

While there have been no indications that redundancies have occurred in the sector over the last year, there is reason to believe that many of those who left employment have not been replaced, which would explain the reduction in employment stock in 2002.

So far, the analysis has focused on recent developments in the areas employing financial skills. On the whole, it has been found that employment growth in the occupations selected decelerated in 2002. Financial sector performance in 2002 has been relatively weak in comparison to the pattern experienced in the previous years. Recently, all financial sub-sectors have experienced slower growth than previously, with growth in insurance being the most prominent. These general findings about sector performance in recent times were instrumental in generating forecasts of the future employment demand at occupational level and conducting skills gap analysis. The actual methodology used for forecasting demand is described in the next chapter. Detailed analysis of individual occupations in terms of past employment trends, forecast demand, future provision of skills and envisaged shortages is presented in Chapter III of the report.

## Methodology



## 2. Methodology

### 2.1 Demand

In addition to strategic consultations and desktop research, three main sources of data were used for historical trends on employment in financial occupations. These included: CSO QNHS occupation data, NACE sector level data and data from various professional bodies.

The QNHS data provides employment data by occupation over time. This data is cross-referenced with NACE data, which allows an examination of occupational data by sector. Thus, for example, the proportion of accountants that are employed in the financial sector as opposed to other sectors in the economy can be determined. Moreover, the proportions employed in specific sub-sectors within the financial sector can be established, i.e., whether a person works in the banking, insurance or auxiliary to financial intermediation sub-sectors. This data is useful as it is possible to determine which sub-sectors are experiencing an increased demand for specific occupations. Both of these sources of data have been provided by the CSO.

This report pays particular attention to employment trends of financial occupations within the financial sector. SOC occupational codes provide data at a much more aggregated level than the occupations and job titles that are in use in the financial sector itself. This presents a situation whereby employment trends by occupation can be observed at an aggregate level. However, equivalent data are not available for job titles. Therefore, it is much more difficult to analyse employment trends by job titles that are in use in the financial sector. When possible, more specific data was obtained through consultations with various professional organisations and through desktop research.

In order to forecast future demand for financial skills, projections were generated for future replacement, as well as expansion employment requirements.

#### 2.1.1 Replacement Demand

Replacement demand refers to the number of employees that are required in order to maintain a constant level of employment within the workforce. Over any given period of time, some employees will leave the labour force through ill-health, retirement or for other reasons. Other employees change jobs and, in particular, change occupation. Such exits reduce the workforce and create a necessity for employers to replace them just to maintain a constant level of employment.

In this analysis, replacement demand forecasts were generated using the replacement rates presented in Table 2.1. These were taken from the most recent FÁS/ESRI manpower forecasts (Sexton et al., 2002). Distinction was made between the replacement rates for professional and administrative occupations. An annual replacement rate of 4% and 6% was applied to professional and administrative occupations, respectively.

**Table 2.1 Replacement Rates across Occupations**

Occupation	Annual Replacement Rate
120 Company financial managers	4%
130 Credit Controllers	4%
131 Bank etc. managers	4%
139 Other financial managers n.e.c.	4%
250 Chartered & certified accountants	4%
252 Actuaries, economists, statisticians	4%
361 Underwriters, claims assessors & analysts	4%
362 Taxation experts	4%
410 Accounts clerks, other financial clerks	6%
411 Cashiers bank & counter clerks	6%

Source: FÁS/ESRI.

Forecasts of future replacement demand were calculated in the following manner:

$$R_{j,t}^f = E_{j,t-1} * r_j$$

where,

- $f$  – forecast
- $t$  – year (2003-2010)
- $j$  – occupation (SOC)
- $R$  – replacement demand
- $E$  – employment stock
- $r$  – replacement rate.

### 2.1.2 Expansion Demand

Expansion demand for each occupation was generated by combining sector and occupational effects. Future employment demand takes demand arising from projected growth in sectors employing financial skills into consideration. Moreover, the forecasts account for the future change in the occupational structure of the financial sub-sectors. Sector effects were based on the ESRI and FÁS/ESRI employment forecasts for the relevant sectors of the economy, while the occupational effects were inferred from the historical data provided by the CSO.

#### Sector Effect

An estimated 40% of the selected financial occupations are employed directly in the financial sector, while the remainder is employed elsewhere in the economy. Consequently, two future employment forecasts were used. The banking/insurance sector employment forecast was used to forecast financial sector employment, whilst overall employment forecasts were applied to all other sectors employing financial skills (ESRI Mid-Term Review, (2003)). Employment forecasts for the banking/insurance sector were adjusted downwards in the short term in order to take account of the slow growth envisaged in the short run.

The forecast employment growth rates used for the projections of sector employment are presented in Table 2.2. Forecast employment growth rates for all sectors, as well as the short run employment growth for the banking/insurance sector were taken from the latest ESRI Mid-Term Review (2003). In the long run, however, the employment forecasts for the banking/insurance sector were inferred from the employment forecast for 2010 supplied by FÁS/ESRI. They were based on the derived continuous growth rate between the employment forecasts for 2004 and 2010.

<sup>6</sup> A Inter-sector and intra-sector occupational mobility (i.e. between the financial sector and the rest of the economy, as well as within the financial sector), was examined. However, due to a small sample size (4 years) no significant patterns were identified.

**Table 2.2 Future Employment Growth Forecasts, 2003-2010**

Sector	2003	2004	2005	2006	2007	2008	2009	2010
Banking/Insurance	1.0	1.2	2.3	2.3	2.3	2.3	2.3	2.3
All sectors	1.0	1.2	2.4	2.5	2.7	2.0	2.0	1.7

Source: FÁS/ESRI, Occupational Employment Forecasts 2015.

Moreover, within the banking/insurance sector, a distinction was made between the expected rates of growth of the sub-sectors. Namely, the forecasts were adjusted to take account of the expected faster rate of employment growth in the insurance sub-sector, and the expected below average rate of employment growth in the other financial services sub-sectors in the economy in the short run.

### Occupational Effect

In order to forecast employment at occupational level, it was necessary to forecast how the share of each of the selected occupations may change within the financial sub-sector. Occupational share forecasts were based on the historical data on employment provided by the CSO (CSO, (2002)).

Firstly, the quarterly occupational distributions of the banking, insurance and other financial services sub-sectors were generated for the period 1998-2002. The annual occupational distribution for each sub-sector for the period 1998-2002, was generated using averages of the quarterly occupational data.

Secondly, the forecasts of the occupational distributions were generated. This was done by using the median of the annual changes in each occupation's share. There were 16 observations available for each occupation, since the annual changes were calculated on a quarter to quarter basis. Given the small sample size and the high volatility of the changes, the median was chosen over the mean for forecasting. Moreover, based on an assessment of the plausibility of the estimated magnitude of change continuing into the future, some medians were adjusted downwards. Adjusted medians were applied on the last historical observation and into the future in order to generate the forecast of the occupational distributions. The forecasted occupational distributions are presented in Table 2.3.

<sup>7</sup> Forthcoming report; the data was obtained through personal communication.

Table 2.3 Occupational Distribution Forecasts for the Financial Sub-Sectors

SOC Code	1998	2002	2003	2004	2005	2006	2007	2008	2009	2010
Banking										
	%									
120 Company financial managers	1.06	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7
130 Credit Controllers	1.0	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3
131 Bank etc. managers	16.5	13.8	13.5	13.1	12.7	12.4	12.0	11.7	11.3	11.0
139 Other financial managers n.e.c.	2.2	5.9	6.3	6.8	7.2	7.7	8.1	8.6	9.0	9.5
250 Chartered & certified accountants	2.5	5.3	5.6	5.9	6.2	6.4	6.7	7.0	7.3	7.5
252 Actuaries, economists, statisticians	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
361 Underwriters	3.5	4.7	4.8	5.0	5.1	5.3	5.5	5.6	5.8	5.9
362 Taxation experts	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
410 Accounts clerks	3.5	6.5	6.9	7.3	7.7	8.1	8.5	9.0	9.4	9.8
411 Cashiers bank & counter clerks	55.2	42.3	41.3	40.3	39.3	38.3	37.3	36.3	35.3	34.3
Insurance										
	%									
120 Company financial managers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130 Credit Controllers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
131 Bank etc. managers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
139 Other financial managers n.e.c.	12.3	9.6	9.3	9.1	8.8	8.5	8.2	7.9	7.6	7.3
250 Chartered & certified accountants	3.6	4.2	4.4	4.6	4.7	4.9	5.1	5.2	5.4	5.5
252 Actuaries, economists, statisticians	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
361 Underwriters	14.3	22.3	23.2	24.0	24.8	25.6	26.4	27.2	28.0	28.8
362 Taxation experts	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
410 Accounts clerks	23.1	20.3	20.1	19.8	19.6	19.4	19.1	18.9	18.6	18.4
411 Cashiers bank & counter clerks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial Services										
	%									
120 Company financial managers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130 Credit Controllers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
131 Bank etc. managers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
139 Other financial managers n.e.c.	14.1	9.1	8.8	8.6	8.4	8.2	8.0	7.8	7.6	7.4
250 Chartered & certified accountants	7.3	10.7	10.9	11.0	11.2	11.4	11.6	11.7	11.9	12.1
252 Actuaries, economists, statisticians	2.3	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
361 Underwriters	37.5	46.7	47.0	47.3	47.6	47.9	48.1	48.4	48.7	49.0
362 Taxation experts	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
410 Accounts clerks	13.7	8.0	7.6	7.2	6.8	6.5	6.1	5.7	5.3	4.9
411 Cashiers bank & counter clerks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: FÁS.

### Expansion Demand Forecasts

Employment forecasts for each occupation were generated using the following equation:

$$d_{j,t}^f = B_t^f * b_{j,t}^f + I_t^f * i_{j,t}^f + O_t^f * o_{j,t}^f + d_{j,t-1}^f * s_t^f$$

where,

- $f$  – forecast
- $t$  – year (2003-2010)
- $j$  – occupation (SOC)
- $d$  – non-financial sector employment
- $B$  – banking sub-sector employment
- $I$  – insurance sub-sector employment
- $O$  – other financial services sub-sector employment
- $b$  – occupational share in banking sub-sector
- $i$  – occupational share in insurance sub-sector
- $o$  – occupational share in other financial services sub-sector
- $s$  – all sectors employment growth.

### Recruitment Requirement

Forecasts of total recruitment demand (D) for each occupation are given as a summation of future replacement and expansion demand.

$$D_{j,t}^f = R_{j,t}^r + d_{j,t}^f$$

### 2.2 Supply

All forecasts of the future supply were generated in the context of the expected demographic changes in the coming years. Table 2.4 shows forecasts for Ireland's population for the period 2000 to 2010. Changes in the projected population forecasts are tracked from the base year 2002 up to 2010. The forecasts envisage that there will be a continuation of the trend pattern of declining numbers of persons in younger age cohorts and increasing numbers of persons in older age cohorts. The number of persons in the younger age cohorts (under 19 years) over the period 2002 to 2010 is predicted to decrease by 1.1% from 1,157,737 in 2002 to 1,144,496 in 2010. There is a significant decrease in the number of persons in the 15-19 age cohort over the forecast period (a 17.8% decrease). For older age cohorts, the number of persons in these groups is predicted to significantly increase i.e. by 25%, from 967,037 persons in 2002 to 1,204,256 persons in 2010. In particular, there will be a rapid growth in the numbers of persons in the 50-64 age cohort. It is expected that the number of persons in this cohort will increase by 31% over the forecast period. In summary, Ireland's population structure will feature a relatively lower number of younger persons in comparison to increasing numbers of older persons. Therefore, projections indicate a strong trend towards an ageing population.

**Table 2.4 Population Growth Forecasts, 2002-2010**

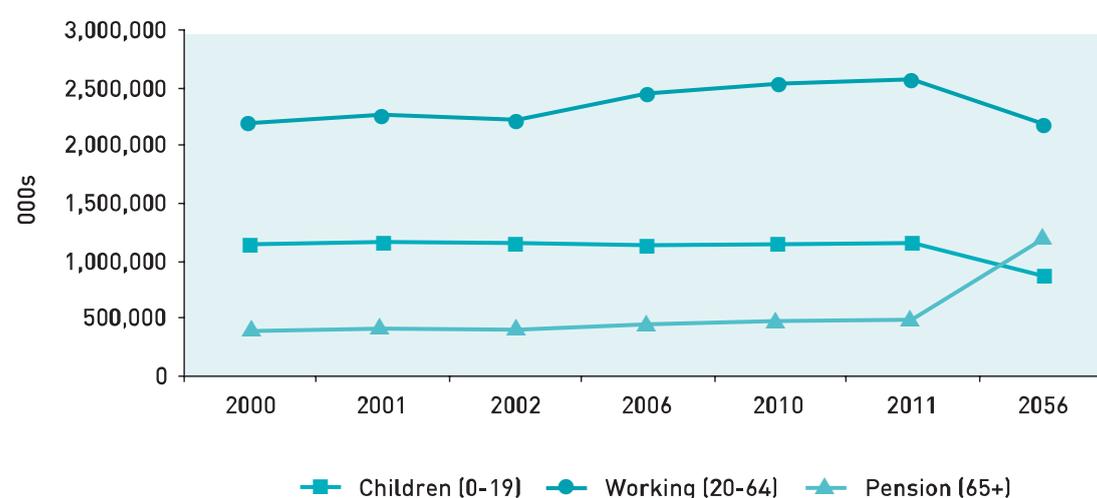
Age	2000	2001	2002	2006	2010	% Change 2002-2010
0-14	828,994	828,134	824,854	844,535	870,941	5.6%
15-19	334,911	325,786	332,883	290,302	273,555	-17.8%
Total	1,163,905	1,153,920	1,157,737	1,134,837	1,144,496	-1.1%
≤ 19 Years % of Total	30.7%	30.1%	30.5%	28.1%	27.5%	
20-24	320,941	328,251	332,226	308,376	276,587	-16.7%
25-34	570,152	585,491	570,418	660,856	661,102	15.9%
35-49	765,463	776,356	766,731	824,483	880,808	14.9%
50-64	545,667	561,996	544,289	650,529	710,711	30.6%
65+	423,848	427,697	422,748	452,354	493,546	16.7%
50+ (Total)	969,515	989,693	967,037	1,102,883	1,204,256	24.5%
50+ % of Total	25.6%	25.8%	25.5%	27.4%	28.9%	
Total	3,789,976	3,833,711	3,794,166	4,031,435	4,167,232	9.8%

Source: Derived from Department of Social and Family Affairs.

In terms of the future expansion of the labour force, the ageing of the population will have negative implications for labour supply across all sectors of the economy. Moreover, the structure of the Irish labour force, which is currently characterised as being predominantly young, dynamic and flexible, is widely regarded as one of the key drivers of the 'Celtic' tiger. However, in the future, this demographic factor is projected to lose some of its importance in attracting foreign investors as the population is getting older. This said, other EU countries will also continue to grow older and Ireland will remain still a relatively young European nation.

Figure 2.1 illustrates population growth projections for Ireland in a study published by the Department of Social and Family Affairs in 2000 to review the financial condition of the Social Insurance Fund. The population projections indicate that the number of people over age 64 is likely to increase dramatically over the period 2001-2056, rising from 428,000 in 2001 to 673,000 in 2021 (an increase of over 57% on 2001) and will continue to rise to nearly 1.2 million in 2056 (an increase of 180%).

**Figure 2.1 Ireland's Population Projections, 2000-2056**



Source: Department of Social and Family Affairs.

In contrast, the number of people at working age is much more stable, and is projected to fall below current numbers by 2056. The fall in assumed future fertility rates is one of the main reasons for the limited growth in the numbers of working age. The net effect of this is that the pensioner support ratio (i.e. the number of people at working ages per person over pension age) is projected to fall from 5.3 in 2001 to 1.8 in 2056. This is dramatic by any standard. The support ratio is important because, generally, benefits for those over pension age need to be financed from contributions from working people unless a significant fund of assets has been built up to help pay for the benefits.

An important development in this respect is the establishment of the National Pensions Reserve Fund (NPRF) in 2001 by the Irish Government. The purpose of the Fund is to build up assets which will part-finance the Exchequer cost of social welfare and public service pensions from 2025 onwards. The Fund is controlled and managed by a seven member Commission which is independent of Government.

Ireland's ageing population together with increased life expectancy is expected to have a positive impact on activity in the funds industry in Ireland in the long-term. This development will arise as a significant number of people are expected to invest in pension funds in order to secure some future income stream in their retirement. As a direct consequence, it is expected that there will be increased demand for investment managers to invest funds, and fund administrators and custodians to ensure the safekeeping and security of assets in funds. The important issue for Ireland is to ensure that the labour requirements in this area are met domestically, rather than from abroad.

The overall educational level of the labour force has been increasing and is expected to continue to increase in the future. The share of students in third-level education is projected to increase. As a consequence, while the slower natural growth of the labour force is expected to negatively affect the number of school leavers, the flows from third level education are expected to be less affected.

In Ireland, the background of people employed in the financial occupations varies widely, both in terms of the level of education and the type of qualification held. For some junior clerical and administrative positions, leaving certificate or post leaving certificate (PLC) education is sufficient. At the other end, professional accountants, for instance, are usually individuals who have been in the education system for a number of years following their secondary education and who have acquired expertise in their area. Moreover, the accountancy education itself can be at a certificate, degree or professional level. Equally diverse is the type of qualification held by those working in the financial sector. The excess demand for labour in this area until recent times, and the absence of requirements for mandatory qualifications for recruitment in the sector provided employment opportunities for people with varied educational backgrounds.

Table 2.5 presents the educational backgrounds of graduates employed in the selected financial occupations as reported in a survey conducted by the Higher Education Authority (HEA) in 2000. The sample contained 1,629 graduates employed in the financial occupations. Of the sample, graduates with a business and commerce background accounted for the largest proportion of graduates employed in financial occupations (73.5%), followed by graduates with an arts and humanities background (16.8%), a discipline that covers a vast range of subjects. Surprisingly, there were also some individuals with an agricultural, medical or pharmaceutical background. Given that recruits for the financial sector have varied educational backgrounds and educational levels, it is difficult to analyse the labour supply of the sector.

The most important generic skills required for work in the financial services sector include computer literacy, quantitative and analytical skills. There are a very large number of undergraduate and postgraduate courses in the Irish education system which offer training in these skills. For the purpose of this study, courses provided in the area of business studies, commerce, management and finance are examined in detail as these are the sources of labour supply for the financial skills which are most commonly quoted. Courses in each of these areas are available at a PLC, certificate, diploma, degree, postgraduate and professional level. The flow of students qualified for work in the financial service sector is presented in Figure 2.2.

**Table 2.5 Disciplinary Background of Undergraduates Employed in Financial Occupations in 2000 (% of the total sample)**

	Arts Soc Sci, Humanities	Science	Comm & Bus.	Medicine Dentistry Pharmacy	Engin.	Law	Agric.	Food Science
131 Bank etc. managers	1.2	0.4	3.8	0.0	0.1	0.1	0.0	0.0
139 Other financial managers	11.9	2.5	42.2	0.0	0.4	0.7	0.5	0.1
250 Chartered and certified accountants	0.9	1.0	16.2	0.0	0.1	0.2	0.0	0.1
252 Actuaries, economists, statisticians	0.2	0.9	0.2	0.0	0.1	0.1	0.0	0.0
361 Underwriters, claims assessors, analysts	1.6	0.5	5.2	0.1	0.2	0.1	0.0	0.0
362 Taxation experts	0.0	0.0	0.9	0.0	0.0	0.1	0.0	0.0
410 Accounts clerks, other financial clerks	0.4	0.0	2.7	0.0	0.0	0.0	0.0	0.0
411 Cashiers bank and counter clerks	0.4	0.1	1.0	0.0	0.0	0.0	0.0	0.0
<b>Total</b>	<b>16.8</b>	<b>6.4</b>	<b>73.5</b>	<b>0.1</b>	<b>1.2</b>	<b>1.3</b>	<b>0.5</b>	<b>0.2</b>

Source: HEA, 2000.

Second-level school leavers can enter employment in the financial occupations at junior administrative, clerical and customer service positions. It is worth noting though, that the domestic financial sector sources labour at this educational level significantly more than the international financial services sector. This fact was highlighted in a survey conducted by the Institute of Bankers in 1997. The survey results suggests that, the overall financial services sector employed 12% of staff directly from second-level education. In the international services sector only 4% of the total number employed was sourced from second-level education (Institute of Bankers 1998). Alternatively, leaving certificate holders can continue education in the financial area at post-leaving certificate, diploma or degree level. They can also acquire financial skills by undertaking professional exams, while employed in financial occupations or elsewhere.

In general, the flow from education to employment in the financial services sector can be described as follows: at any level of education which provides a certain degree of financial skill, there is an option to continue education and training at a higher level or to enter into employment in the financial occupations. There is a difficulty in capturing the supply at the end of any stage of the education process, given the lack of information about student preferences in relation to remaining in or exiting from the education system. This problem is common for most sectors in the economy. The financial sector is specific, however, in that individuals possessing financial skills are employable in most sectors of the economy.

A survey undertaken by the HEA in 2000 to investigate the first destination of students following their third level education suggests that, business and commerce graduates enter employment across all sectors of the economy. Table 2.6 shows that, of the total number of 2,856 business and commerce graduates in the sample, 44 % were employed in the financial services sector (which also included business, commerce and computer services graduates) and 18% were employed in the professional services and private practice sectors. The remaining 38% were employed across all sectors of the economy.

Figure 2.2 The Flow of Students with Financial Skills from Secondary Education to Employment

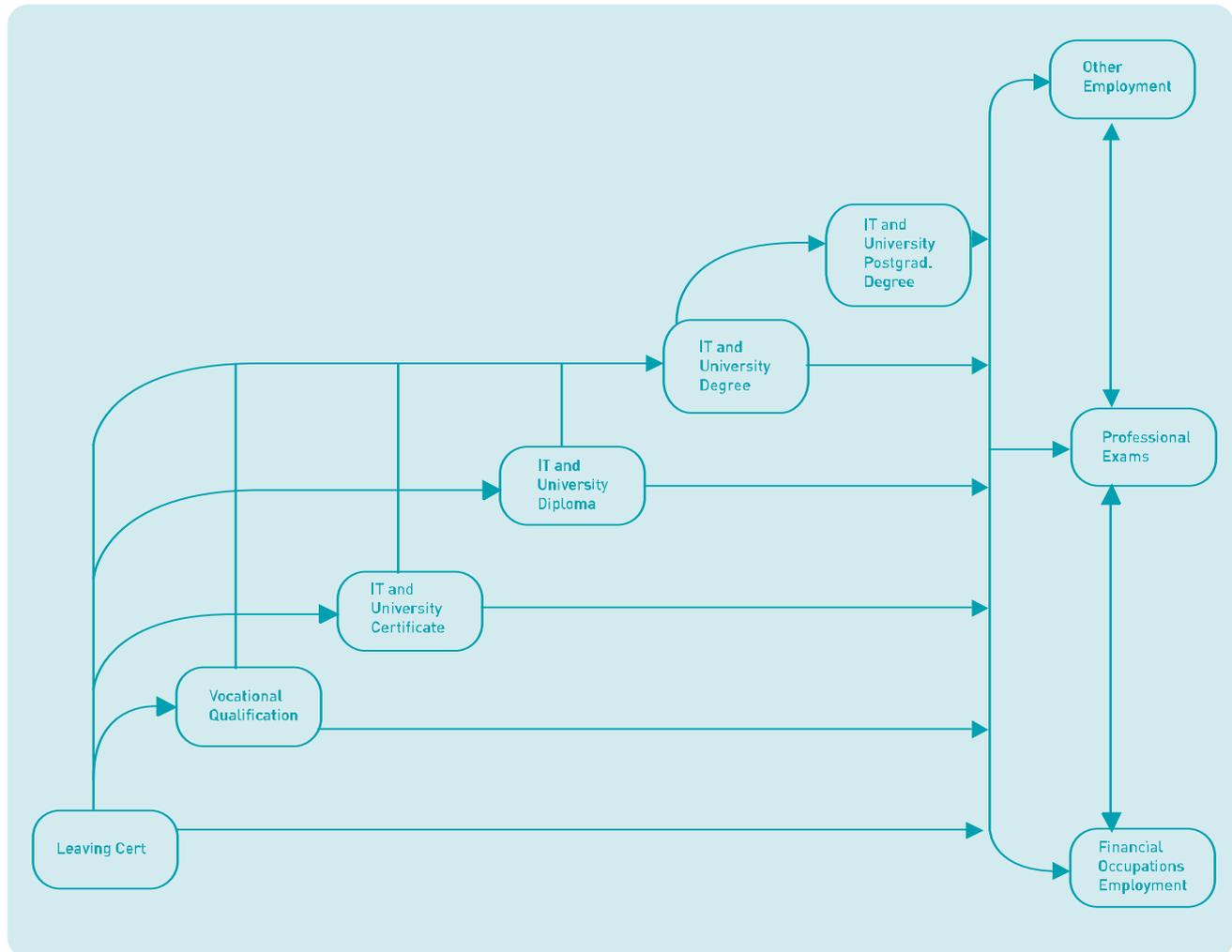


Table 2.6 First Destination of Business and Commerce Graduates in 2000

Employment sector	%
Agriculture, Forestry, Fisheries	0.4
Mining, Quarrying, Turf Production	0.1
Food Processing, Beverages, Tobacco Manufacturing	2.2
Textile, Clothing, Footwear, Leather	0.4
Wood and Wood Products	0.2
Paper, Paper Products, Printing, Publishing	0.7
Chemicals, Rubber, Plastics, Pharmaceuticals, Health Care pr	1.9
Glass, Pottery, Cement	0.1
Engineering, Electronics and Metal Industries	3.5
Transport Equipment	0.3
Electricity, Gas	0.2
Construction, Civil Engineering	1.4
Other Industries	1.4
Civil Service, Defence	1.2
Local Government	0.7
Health Board, Hospital Services	1.1
Education - First and Second Level	1.8
Education - Third Level	2.2
Non-commercial - State Sponsored	2.6
Wholesale Distribution	1.1
Retail Distribution	2.6
Transport, Communications, Storage	3.7
Insurance, Financial, Business and Commerce Computer Services	43.8
Social and Personal Services	1.8
Professional Services, Private Practice	18.4
Other Services	6.4
<b>Total</b>	<b>100.0</b>

Source: HEA, 2000.

The labour supply for financial occupations is also difficult to assess, both in terms of its quantity and quality due to the fact that individuals can choose to undertake professional examinations at any level of education and enter employment from that point. Professional education can be acquired while in employment, both within or outside of the financial area. Finally, there is always a fraction of the labour supply which enters the unemployment pool or employment overseas, or simply changes the area of interest and enters the education system anew.

The first part of the analysis consisted of an examination of the current labour supply stock. This involved analysing data on the number of students enrolled in finance and finance-related courses. There are circa 400 such courses offered by PLC institutions, ITs, universities, private colleges and professional institutes. Information and data on the number of students enrolled in finance and business-related courses and specialist courses was compiled from several sources, which are now

documented. The Department of Education provided enrollment data for PLCs and ITs and the HEA provided enrolment data for universities at both undergraduate and postgraduate level. Private colleges and professional institutions were contacted individually. Private colleges included: the National College of Ireland (NCI), Dublin Business School, Griffith College, Portobello College, Skerry's Business School, High School International College and the Mid-West Business Institute. Data on individuals undertaking continuous education and training in accountancy was obtained from the Chartered Institute of Management Accountants, the Institute of Chartered Accountants, the Institute of Accounting Technicians, the Institute of Chartered Public Accountants and the Association of Chartered Certified Accountants. The Institute of Bankers provided data on the number of students enrolled on specialist banking courses. The Insurance Institute of Ireland, as well as FÁS, which provides an insurance traineeship programme, provided data on the number of students undertaking insurance training. The Society of Actuaries in Ireland supplied data on the number of students attending specialist actuarial training courses. Finally, data on the number of individuals registered to undertake specialist taxation examinations was provided by the Institute of Taxation.

As described above, the supply flows for financial skills are complex and it is difficult to forecast future supply for this skills group. In particular, there are three critical issues in forecasting future supply of financial skills. First, for the majority of the selected financial occupations no mandatory qualifications are required. This is the case for professional, associate professional, as well as managerial and clerical occupations. The only exception applies to the actuarial profession. As a result, the supply set cannot be identified. Second, all of the professional financial skills are acquired through continuous education rather than through the initial education process. The data on enrolment figures, class sizes and dropout rates is scarce, which creates difficulty in forecasting the future supply flow from the current supply stock. Third, the education process associated with professional qualifications does not have a fixed duration. For many people it takes many years before they are fully qualified bankers, accountants, tax experts or actuaries. As a result, the data on current supply stock cannot be used as a cornerstone for the future supply flows.

Given the above reasons, it was difficult, and for some occupations impossible, to forecast the labour supply flow in quantitative terms. In terms of the specific issues regarding supply forecasts, each occupation was considered individually in Chapter III.

Another potential source of supply of persons for financial occupations is through immigration. Unfortunately, at present, immigration data are not available at an occupational level<sup>8</sup>.

### 2.3 Gap Analysis

In the report, gap analysis refers to the identification of excess labour supply or labour demand for a given occupation. This analysis was conducted for each occupation in turn in Chapter III.

In the gap analysis both quantitative and qualitative sources of information were used. For financial skills where quantification of the supply was possible, a quantitative gap was established. On the other hand, for financial skills where there was no identifiable source of supply, the results found were based on an examination of vacancies and remuneration trends.

The Irish Times and FÁS were selected as the primary sources of vacancy data. Vacancies are advertised both in the Irish Times newspaper and also on their website, [www.irishtimesjobs.com](http://www.irishtimesjobs.com). It was from this latter source that the Skills and Labour Market Research Unit (SLMRU) in FÁS obtained

<sup>8</sup> At a more aggregate level, work permit data from the Department of Enterprise, Trade and Employment shows that 120 persons entered Ireland in the six months from September 2002 – February 2003 as a business or financial professional. There is no more detailed data available currently.

vacancy data. This data was used as an indicator of employer demand for a skill. It must be noted that the Irish Times does not receive notification of all open vacancies in Ireland. While the Irish Times is a good source for professional and managerial vacancy notifications, it is not the most appropriate source for clerical vacancies. Consequently, clerical vacancies notified to FÁS were used in addition.

The vacancy data was analysed and the appropriate SOC code was attached. As stated previously, the SOC codes for financial occupations are less than adequate in their level of detail. As the SLMRU has retained the original vacancy notifications of each vacancy, each vacancy with an aggregated SOC code (such as 'other financial managers', 'actuaries', economists and statisticians', 'underwriters, claims assessors, brokers and investment analysts') has been re-evaluated to determine the precise occupation of the vacancy.

In August 2002, a new format was introduced in the Irish Times' database, which allocated individual identifiers to each vacancy. The difference in the formatting has resulted in a loss of comparability between the data collected in the period from March 2002 to July 2002 and data subsequently collected. Thus, in the analysis, a detailed breakdown of vacancies is only available for the past nine months (August 2002 – April 2003 inclusive).

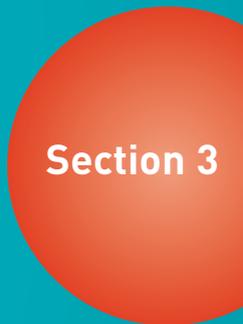
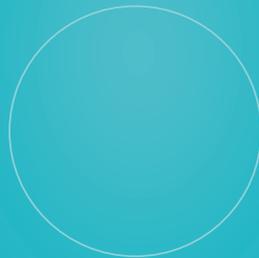
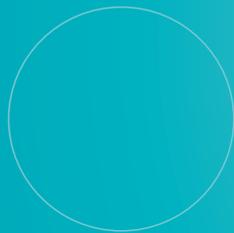
The CSO's Earnings data and Ernst and Young's Remuneration Guide are the main sources of data on salaries for the financial occupations. Ernst and Young's earnings data by occupation was examined to observe whether earnings have increased or decreased in the past year, as well as whether the rate of change was below or above the sector average. Finally, information on trends in earnings was obtained from desk research and from consultations with professional bodies.

Salaries were used as an indicator of the balance between supply and demand of skills. Salaries increasing at a rate higher than the sector average were taken as an indication that there was a greater demand than supply of a certain skill.

Industry representatives provided qualitative information on financial skills needs which was used as a valuable input in forecasting financial skills gaps. For some financial occupations where there was no identifiable source of future supply, the gap analysis was based exclusively on the qualitative data. The data was gathered through telephone or personal interviews with the industry representatives, as well as desk and internet research.

<sup>9</sup> Ernst and Young's Remuneration Guide is based on a survey of over 1,000 jobholders. This guide presents detailed information on over 86 job titles in financial services.

## Forecast Employment and Skill Shortages



### 3. Forecast Employment and Skill Shortages

#### SOC 120: Treasury and Company Financial Managers

##### Demand

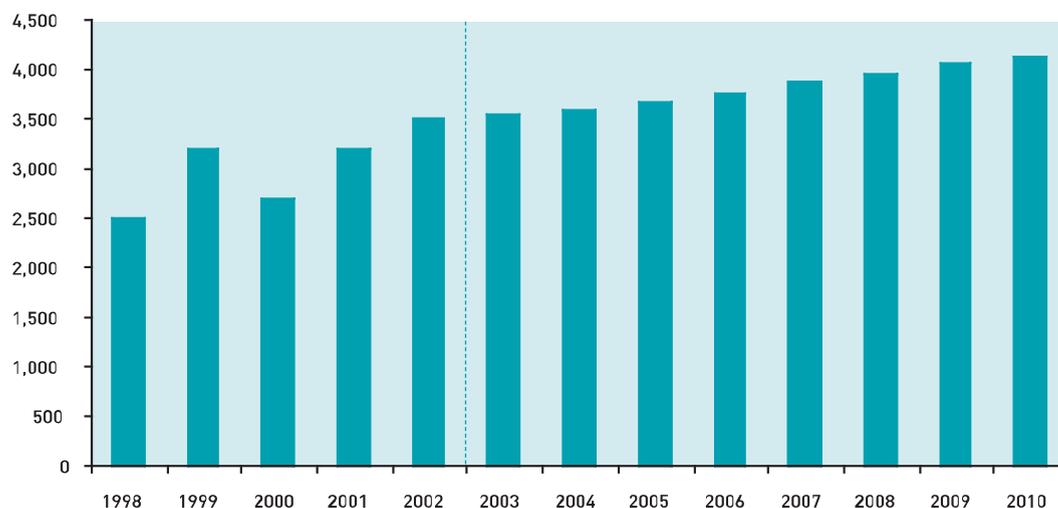
The SOC code 120 consists of treasury and company financial managers. In 2002, there were 3,500 treasury and company financial managers employed in Ireland. Of this, 22.9 percent were employed in the financial services sector while 77.1 percent were employed in the non-financial services sector. In 2002, approximately 800 persons (approximately 25 percent) in this occupational group were employed in the banking sector, while approximately 200 persons (9.3 percent) were employed in insurance and other financial services sectors. In general, treasury managers are mainly employed in the financial and banking sector, while company financial managers are employed in all sectors of the economy.

Figure 3.1 shows the demand in terms of past and future employment trends for treasury and company financial managers.

##### Historical Trends

Over the period 1998 to 2002, there has been an upward trend in the employment recorded for this occupational category (representing a 40 percent increase), with the exception of the period 1999 to 2000 when employment decreased by 15.6 percent or by 500 in absolute terms<sup>10</sup>.

**Figure 3.1 Total Labour Demand for Treasury and Company Financial Managers**



##### Forecast Trends

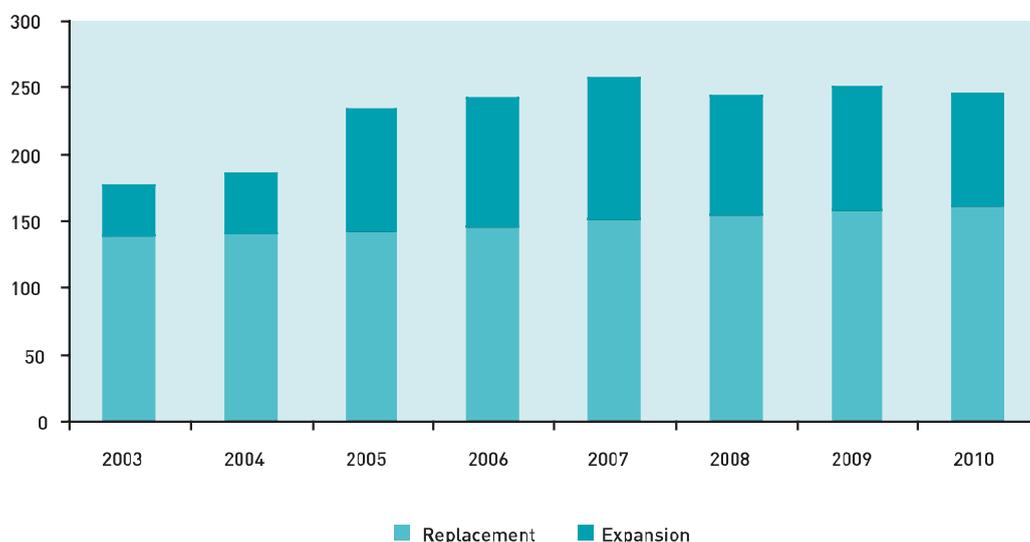
Given the current uncertain economic environment, it is projected that a slow recovery will occur in economic growth in the short to medium-term. However, it is expected that economic growth will recover to higher levels from 2005 onwards. Consequently, the forecast is that 4,139 treasury managers and company financial managers will be employed by 2010.

<sup>10</sup> This varied pattern is likely to reflect sampling error rather than real changes.

### Replacement Demand

Figure 3.2 shows forecast replacement and expansion demand for treasury and company financial managers over the forecast period 2003 to 2010. It is expected that on average about 150 treasury managers and company financial managers will be required each year to replace those who leave the occupation over the forecast period.

**Figure 3.2 Forecast Replacement and Expansion Demand for Treasury and Company Financial Managers**



### Expansion Demand

It is projected that approximately 639 treasury and company financial company managers will be required over the forecast period in order to meet the requirements created by economic expansion. The share of treasury and company managers in banking employment is expected to remain mostly unchanged at 2 percent over the forecast period. Thus, total recruitment is expected to be 1,838 over the eight year period 2003 to 2010.

### Supply

This section provides an overview of the provision of financial skills in terms of the current supply stock as well as the future supply.

### Supply Stock

In general, all managerial positions, including financial managers, are drawn from the existing pool of employees within or outside of the related sector. This is usually achieved by vertical (internal) promotion within an organisation or alternatively via horizontal (inter-company) intra-sector or inter-sector movement of employees with experience. As a result, it is impossible to identify the existing supply stock for treasury and company managers. The only relevant information about the supply stock refers to treasurers.

### Treasury

Dublin City University is the only institution which currently provides specific training in treasury. It offers two programmes at postgraduate level: an MSc in investment and treasury and a graduate certificate in corporate treasury. The former contains modules on corporate treasury management and treasury management in financial institutions. It is a two-year course and in 2001/2 there were 75 students registered (HEA (2003)) for it. The graduate certificate in corporate treasury is a one-year course designed as a response to the requirements for the professionally qualified corporate treasury managers. There were 18 students registered in 2001/2 (HEA (2003)).

### Forecast Supply

To work as a treasury or company financial manager, no mandatory qualifications are required. As a result, it is not possible to identify sources of labour supply for these occupations and the future supply flows. To become a treasury or company financial manager, a person can obtain employment in a company after the leaving certificate and avail of on-the job in-housing training or also, pursue further education by undertaking specific treasury courses in the case of a treasurer or specific financial courses in the case of a company financial manager. In general, to become a treasury or company financial manager a person is usually promoted to these positions after a number of years of experience in the related area.

### Gap Analysis

#### Quantitative

Given the problems in quantifying future supply flows for the managerial occupations, it is impossible to conduct quantitative gap analysis.

#### Vacancies

During the period August 2002 to April 2003, there were only 2 notified vacancies to the Irish Times for treasury and company financial manager positions. Although clearly an underestimate, this figure suggests no acute shortages in this area.

#### Earnings

The data on earnings shows that following an increasing trend over the period 1998-2001, the average earnings for treasury managers declined from €103,106 in 2001 to €97,364 in 2002 (representing a 5.6 percent decrease). This suggests that no excess demand for treasury managers was experienced in recent times.

**Table 3.1 Average Salaries for Treasury Managers**

	1998	1999	2000	2001	2002
Head of treasury	87,234	90,640	94,518	103,106	97,364

Source: Ernst & Young Remuneration Guide, various issues

#### Qualitative

From telephone interviews held with treasury and company financial managers, it was concluded that it is unlikely that there will be any shortages of treasury and company financial managers in the future, given that persons currently working in both the treasury and financial areas can be promoted to management level after a number of years of experience.

#### Issues

In the forecast period, it is envisaged that persons will be required to have higher level educational qualifications in order to work in management. This will result from the overall increase in the educational profile of the population and consequently more intense competition for those positions. In terms of skill evolution, management will be increasingly required to have more pronounced dynamic leadership skills to adapt to the rapidly changing economic, regulatory and technological environment.

### SOC 131: Bank, Building Society and Post Office Managers

#### Demand

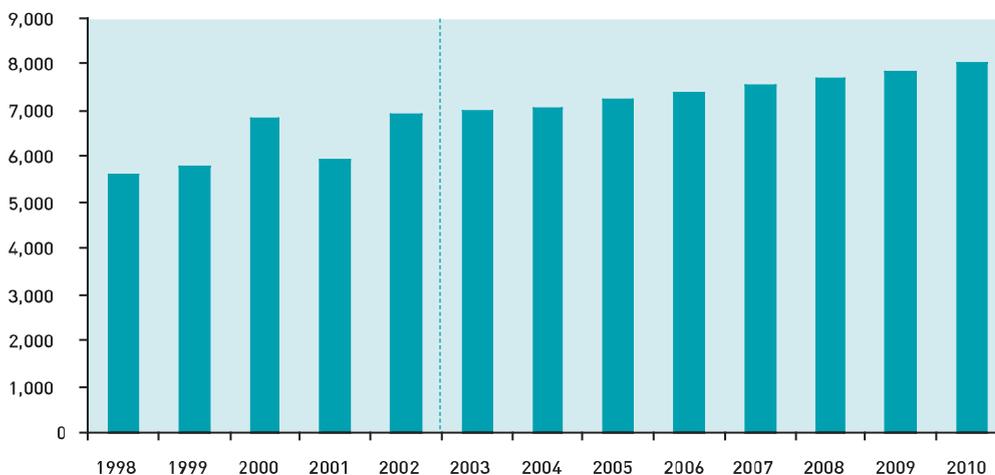
The SOC code 131 consists of bank, building society and post office managers. Of the total employed under this SOC code in 2002, 87 percent were employed in the financial sector, while 13 percent were employed in the non-financial sector. The small proportion of persons employed in this occupational category that are not employed in the financial sector can be explained by the classification of the SOC code, which also includes post office managers.

Figure 3.3 shows past employment trends for bank managers over the period 1998 to 2002 and forecast employment trends over the period 2003 to 2010.

#### Historical Trend

Over the period 1998 to 2002 there has been continuous growth in employment recorded for bank managers (representing a 23.2 percent increase), with the exception of the period 2000 to 2001 when there was a decrease of 13.2 percent in employment.

**Figure 3.3 Total Labour Demand for Bank, Building Society and Post Office Managers**



#### Forecast Trend

It is expected that in the short-run, there will be a slowdown in economic growth. This will be reflected in employment trends in the financial sector. Consequently, it is expected that the employment stock for bank managers will remain largely unchanged at approximately 7,000 over the period. However, assuming economic growth records higher levels in the medium to long-run, it is expected that 8,000 bank managers will be employed by the end of the decade (a 10 percent increase from 2005 to 2010).

#### Replacement Demand

Figure 3.4 illustrates the forecast replacement and expansion demand for bank managers over the forecast period. Over the period, replacement demand is expected to increase from 276 in 2003 to 314 in 2010.

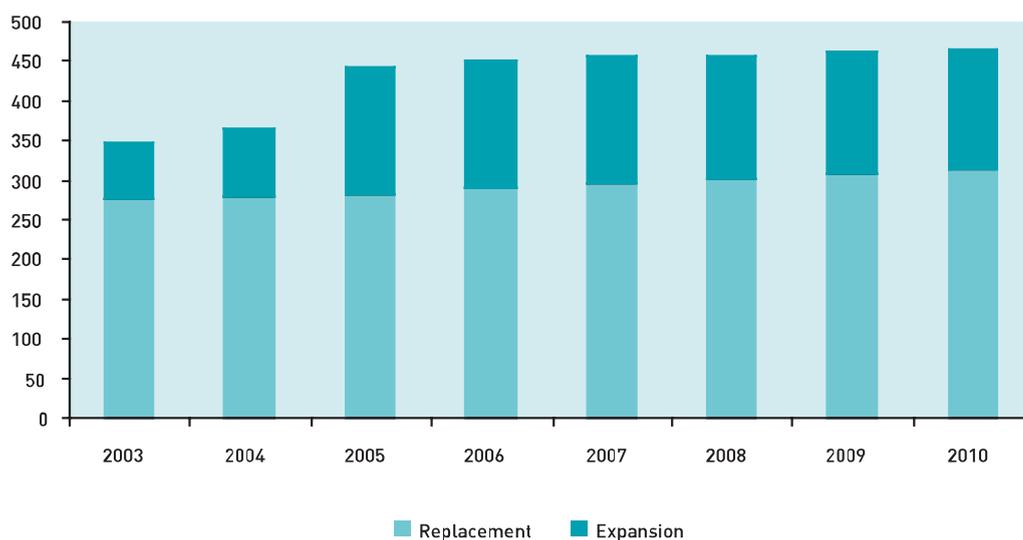
<sup>11</sup> Bank manager is defined as a person who directs the business of a local branch of a bank.

<sup>12</sup> This varied pattern is likely to reflect sampling error rather than real changes.

### Expansion Demand

It is predicted that an additional 1,100 bank managers will be required to work in the banking sector over the forecast period. This growth is expected to be brought about by the buoyant performance of the banking sector projected beyond 2005. However, the actual share of bank managers within banking sector employment is expected to continue to decline from 13 percent in 2002 to 11 percent in 2010. This is projected to occur as a result of continued automation of the banking (e.g. ATM machines), increased use of internet and telephone banking and the associated closure of many branches.

**Figure 3.4 Forecast Replacement and Expansion Demand for Bank, Building Society and Post Office Managers**



### Supply

#### Forecast supply

There are no identifiable sources of labour supply for occupations in SOC code 131. No mandatory qualifications are required to obtain employment as a bank, building society or post office manager. Training can take the form of on-the-job in-house training or completing professional banking exams after the leaving certificate or third-level qualification. The background of persons employed in this occupational category varies in terms of the level of education and the type of qualification held. The level of education varies from leaving certificate to degree holders. It is therefore impossible to examine the supply of those skills in terms of past and future stocks and flows.

### Gap Analysis

#### Quantitative

It is impossible to quantify skills gaps for SOC code 131 given that it is impossible to quantify the supply of bank and other managers' financial skills.

#### Vacancies

During the period August 2002 to April 2003, there were 166 notified vacancies to the Irish Times for positions corresponding to occupations in SOC code 131. Given the size of the bank manager population and the historical replacement rates, this figure suggests that there are no shortages of skills in this area.

#### Earnings

There is no data available for bank managers, building society managers or post office managers.

### Qualitative

From consultations held with financial sector representatives it was concluded that there are unlikely to be shortages of bank managers. In fact, it was pointed out that many branches have been closed and others are likely to be closed in the future. This reflects a process of structural change in the banking sector, which is resulting in decreased demand for bank managers.

### Issues

In the future, as with other managers, it is expected that there will be a demand for managers with strong business awareness and dynamic leadership skills in response to increased global competition in an ever changing sector. In line with the expected trend for higher level educational qualifications for all occupations in the economy, it is expected that the educational level of bank managers will also increase. This increase is likely to be strongly reinforced by the ongoing growth in demand for more highly educated workers in response to technological innovations and global competition.

## SOC 139: Other Financial Institution and Office Managers

### Demand

The SOC code 139 consists of office managers (general accounts etc.), insurance managers, telecommunications managers, booking office managers, and employment agents. It is difficult to state precisely the number employed in each of the occupations included in this code, as this data is not collected by any source. The approach taken is to display the employment figures as a whole.

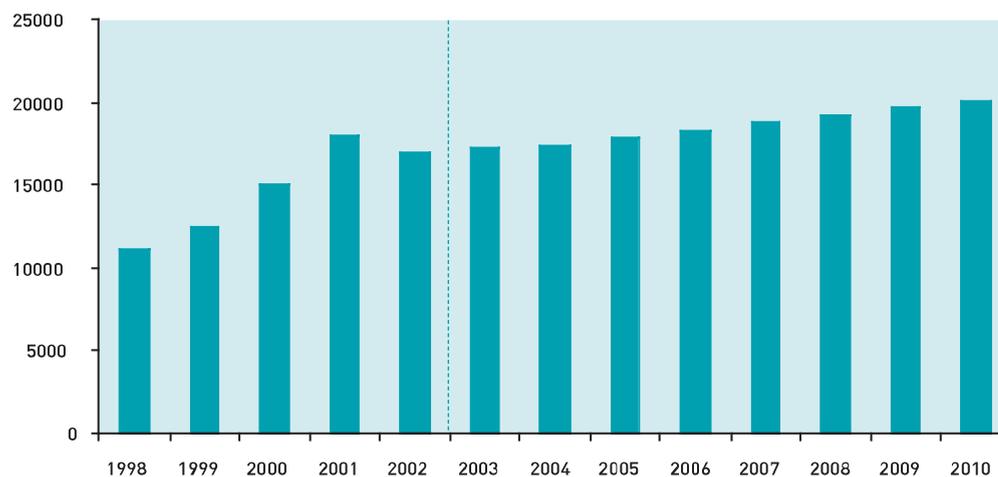
Of the total employed under this SOC code in 2002, 27 percent were employed in the financial sector, while the remainder were employed in the non-financial sector. Within the financial sector, 60 percent were employed in banking, while 30 percent and 10 percent were employed in the insurance sub-sector and the other financial service sub-sector, respectively.

Figure 3.5 presents past employment trends for other financial and office managers over the period 1998 to 2002 and forecast employment trends over the period 2003 to 2010.

### Historical Trends

Over the period 1998 to 2002 there has been continuous growth in employment recorded for other financial managers, with the exception of the period 2001 to 2002 when there was a decrease of 6 percent.

**Figure 3.5 Total Labour Demand for Other Financial and Office Managers**



### Forecast Trends

It is expected that in the short-run, there will be a slowdown in economic growth. This will be reflected in employment trends for other financial and office managers. It is expected that the employment stock for this SOC code will remain largely unchanged at approximately 17,000 over the period. As economic growth improves in the medium to long-run, the demand for other financial and office managers is expected to increase. By the end of the decade, 20,000 other financial and office managers are projected to be employed across the economy.

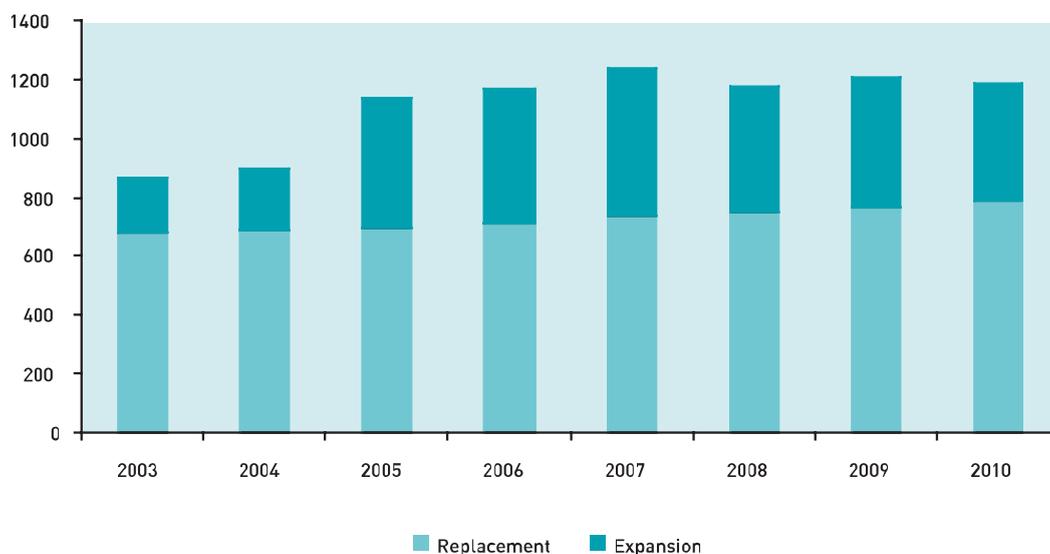
### Replacement Demand

Figure 3.6 illustrates the forecast replacement and expansion demand for other financial and office managers over the forecast period. Over the period, total replacement demand is expected to be 5,815 or 727 on average annually.

### Expansion Demand

It is predicted that an additional 3,050 other financial and office managers will be required over the forecast period.

**Figure 3.6 Forecast Replacement and Expansion Demand for Other Financial and Office Managers**



Recruitment requirement is predicted to be approximately 800 in 2003 and 1,200 in 2010. Total recruitment requirement over the forecast period is projected to be close to 9,000.

### Supply

#### Forecast Supply

There are no identifiable sources of labour supply for occupations in SOC code 139. To obtain employment as a manager no mandatory qualifications are required. Most commonly, labour for these positions is drawn from the existing pool of employees. This is usually achieved by vertical (internal) promotion within an organisation or alternatively via horizontal (inter-company) intra-sector or inter-sector movement of employees with experience. As a result, it is not possible to identify the existing or future supply stock for SOC 139.

### Gap Analysis

#### Quantitative

Quantitative analysis of the skills gaps for SOC code 139 cannot be conducted given that it is impossible to quantify the supply of other financial and office managers.

### Vacancies

During the period August 2002 to April 2003, there were 629 notified vacancies to the Irish Times for positions corresponding to occupations in the SOC code 139. The breakdown of this figure is given in Table 3.2.

**Table 3.2 Notified Vacancies for the SOC 139**

Job title	Number of vacancies
Fund Manager	144
Finance Manager	97
Insurance Manager	46
Client Relationship Manager	74
General 'other' financial managers	268
<b>Total</b>	<b>629</b>

Source: The Irish Times

Given the size of the overall population and the historical replacement rates for this SOC code, vacancies as an indicator do not suggest a shortage of skills in this area. The number of notified vacancies for fund managers appears to be an overestimate given that there is an estimated 150 fund managers in total working in Ireland. Moreover, this figure must be treated with some degree of scepticism, as the employment situation for fund managers is not positive at present. There may be an issue of duplication in the notifications, as well as a possibility that some vacancies in fund administration are classified as fund managers. It was suggested by some sources within the industry that there is a possibility of companies advertising without having a genuine vacancy.

### Earnings

There is no salary data available for other financial and office managers.

### Qualitative

From consultations held with financial sector representatives it was concluded that there are unlikely to be shortages of managers.

### Issues

In the future, as with other managers, it is expected that there will be a demand for managers with strong business awareness and dynamic leadership skills in response to increased global competition in an ever changing environment. In line with the expected trend for higher level educational qualifications for all occupations in the economy, it is expected that the educational level of managers will also increase. This increase is likely to be strongly reinforced by the ongoing growth in demand from employers for more highly educated workers in response to technological innovations and global competition.

### SOC 250-251: Chartered/Certified Accountants and Management Accountants

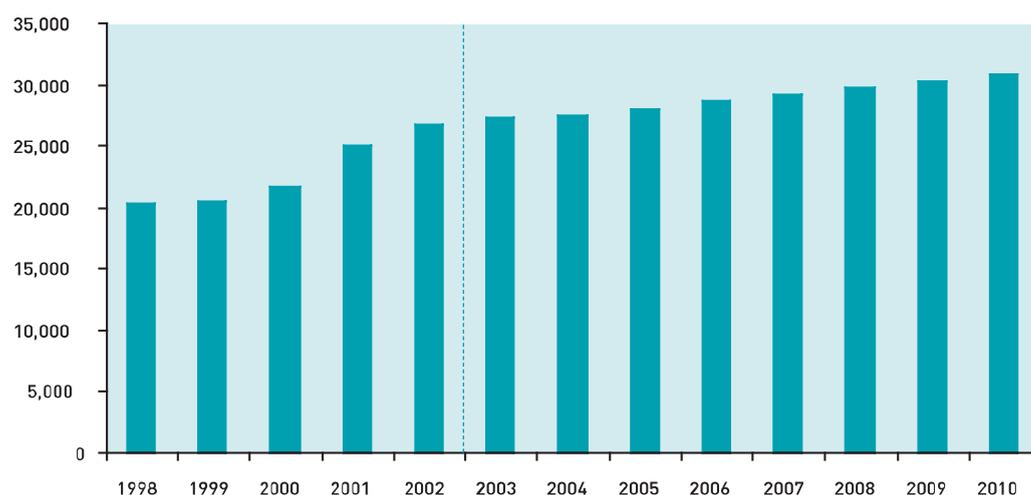
#### Demand

Accountants are employed predominantly outside of the financial sector, with 87 percent employed in other sectors. Within the financial sector, 67 percent (2,300 persons) are employed in banking and 18 percent (600 persons) in insurance. Employment trends and forecast employment demand are displayed in Figure 3.7.

#### Historical Trend

The employment figures for accountants have increased notably in the past two years. Employment stood at approximately 20,000 in 1998. This figure increased to almost 27,000 in 2002, which is an increase of almost 35 percent.

**Figure 3.7 Total Labour Demand for Chartered/Certified Accountants & Management Accountants**



This increase requires some explanation as the belief in the industry is that employment for accountants has been contracting since 2000, rather than experiencing any form of growth. Sources within professional organisations estimate that there are approximately 21,000 accredited accountants employed in Ireland. Thus, there is a discrepancy of approximately 6,000 between the number of qualified accountants and the number of persons employed as accountants.

The reason for this discrepancy appears due to increases in the numbers of persons training to be accountants. Trainee accountants are usually employed while undergoing professional examinations and/or training. Thus, it is not necessary to be a fully qualified accountant in order to be employed as an accountant (and classified by the CSO as such). The only situation currently where it is necessary to have an accountancy qualification is in order to sign off accounts as an auditor. Similarly, a chartered accountant's qualification is generally required to establish an accounting practice in order to obtain professional indemnity insurance.

For the purpose of gap analysis the forecasts on the demand side refer only to qualified accountants. This enables comparison between the estimated future supply flows and the forecasted demand to be conducted.

#### Forecast Trend

Figure 3.8 displays the forecast replacement and expansion demand for accountants from 2003 to 2010. Total recruitment requirement is predicted to be approximately 1,000 in 2003 and 1,500 in 2010.

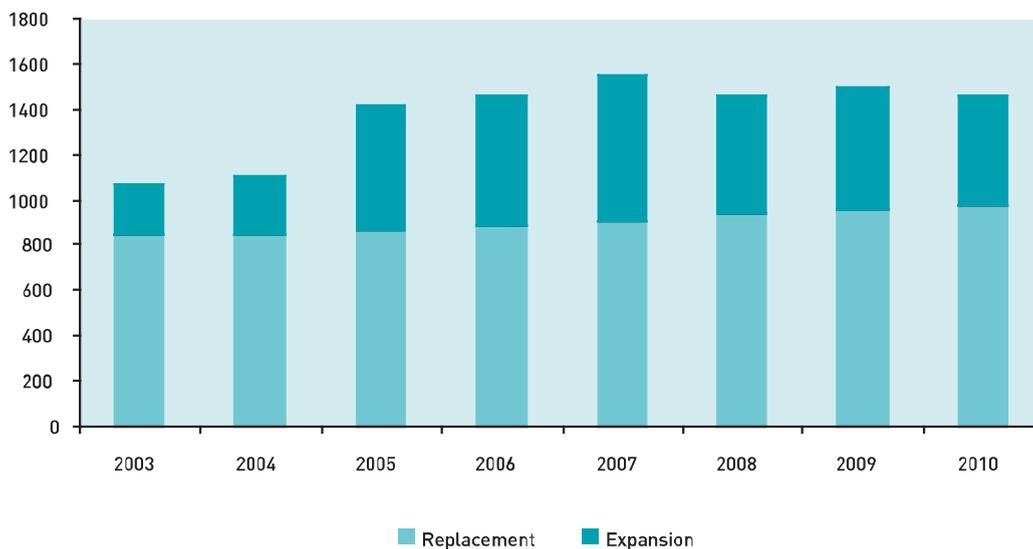
### Replacement Demand

Replacement demand averages at approximately 900 persons per year.

### Expansion Demand

A low rate of expansion is projected for the next two years followed by an economic recovery from 2005. A total expansion demand of approximately 3,800 is projected over the period 2003-2010. Along with the economic recovery, the growth in employment will be brought about by the increase in the share of accountants in the overall employment across financial sub-sectors .

**Figure 3.8 Forecast Replacement and Expansion Demand for Chartered/Certified Accountants and Management Accountants**



### Supply

#### Supply Stock

Approximately 21,000 individuals in Ireland attended some form of education and training in accounting in 2002. Table 3.3 presents the number of students registered for accounting courses. Only 10 percent of students are enrolled in accountancy courses offered by third level education institutions. The majority are attending courses and taking exams at professional level.

Overall, there are currently 24 accounting courses offered by the institutes of technology, of which one is at postgraduate level at the Dublin Institute of Technology. An undergraduate degree in accounting can be obtained at DCU, UCD, UCC and Limerick University, while a postgraduate qualification - Masters in accounting - can be received at DCU, UCD, UCC and UCG. DCU also offers a professional diploma in accounting. All of the private colleges that have been considered in this study offer undergraduate courses in accounting.

<sup>13</sup> In 2002, accountants are expected to represent 7.5, 5.5 and 12.1 percent of the total employment in banking, insurance and other financial services, respectively, as opposed to shares of 5.3, 4.2 and 10.7 percent in 2002.

**Table 3.3 Students registered for accounting courses 2001/2**

Institution	Number of students
Institute of technology	1,407
University	1,117
Private colleges	630*
Professional	17,835
<b>Total</b>	<b>20,989</b>

Note: \*Dublin Business School enrolment figure is an estimate

Professional institutes which provide education in accounting and their registration figures are presented in Table 3.4. There are a total of 17,835 students currently registered with five professional accounting institutions in Ireland. The institutes provide various levels of education and training, as well as certification for the accounting profession.

**Table 3.4 Students Registered with Professional Accounting Institutions**

Institute	Number of Students
Chartered Institute of Management Accountants	2,500
Institute of Chartered Accountants	3,328
Institute of Accounting Technicians	5,000
Institute of Certified Public Accountants	1,507
Association of Chartered Certified Accountants	5,500
<b>Total</b>	<b>17,835</b>

Source: personal contact with individual institutes

### Forecast Supply

While it is possible to work as an accountant without qualifications in accountancy, professional accountancy bodies are still the main sources of supply. Table 3.5 below displays the total number of students who qualified from the ICAI, ACCA, CPA and CIMA in the past year. On average, there are approximately 1,450 persons qualified in accountancy per annum.

**Table 3.5 Average Number Qualifying from Professional Accounting Institutions**

Institute	Number of Students
Institute of Chartered Accountants	600
Association of Chartered Certified Accountants	350
Institute of Certified Public Accountants	200
Chartered Institute of Management Accountants	300*
<b>Total</b>	<b>1,450</b>

Source: personal contacts with institutes; Note: \* estimate

### Gap Analysis

#### Quantitative Sources

The average number of persons emerging with accounting qualifications annually is higher than the forecast demand in the short-term. Assuming 1,450 persons qualifying annually, there will be excess supply in the short run of 350 annually for 2003 and 2004. With an economic recovery, the demand will increase beyond 2005. However, no shortages are envisaged, partially because the short-run excess supply, which is expected to be available at least to some extent over the medium to long run, is more than sufficient to compensate for any shortage that may occur from 2005. In addition, a qualification in accountancy is much sought after and professional bodies have demonstrated their ability to increase supply should the need arise, as evidenced in the late 1990s.

#### Vacancies

There were over 1,269 vacancies for accountants notified to the Irish Times in the past three quarters. The number of vacancies is high and it would suggest that recently there has been a strong demand for accountants. However, this figure was met with some degree of scepticism from the industry, as the employment situation is evidently not lively for accountants at present. There may be an issue of duplication in the notifications. Some sources also suspect that companies advertise without having a genuine vacancy. It is accepted that there is a demand for part-qualified or newly qualified accountants and that there are continued vacancies in this area.

#### Earnings

The Ernst and Young Remuneration Guide notes increases in salaries for accountants from 2001 to 2002, as displayed in Table 3.6 below.

**Table 3.6 Average Salaries for Accountants**

	1998	1999	2000	2001	2002
Financial Accountant	34,033	36,138	38,769	44,109	45,084
Project Accountant	32,047	30,984	31,369	40,709	53,000

Source: Ernst & Young Remuneration Guide, various issues

Financial accountants experienced a 2 percent increase from 2001 to 2002, which is below the average salary growth for financial sector. This suggests that recently there has been no shortage of financial accountants. On the other hand, salaries for project accountants increased outstandingly by 30 percent, which suggests a shortage of persons with specialised accountancy skills.

### Qualitative

Consultations with professional bodies and sources within the industry suggest that the employment situation is not as favourable as it was in the late 1990s. With the economic slowdown, employers are expected to continue to favour recruitment of partially qualified accountants who are less costly than certified accountants. There are currently more than adequate numbers of accountants to meet demand.

### Issues

There is a large degree of internal regulation of supply within the accountancy profession, as firms can choose the number of trainees that they are willing to take on in a given year. There are always sufficient numbers of applicants to meet the demand of accounting firms, as obtaining a professional accounting qualification is becoming similar to obtaining an MBA; it is a desirable qualification for a variety of business fields. The attractiveness of the qualification suggests that in addition to persons currently training as accountants, there is a large reserve of potential applicants available to meet any increases in demand.

From a skills perspective, in general, current levels of supply are sufficient to meet demand. However, there are some indications that accountants with specific skills, such as those necessary for the management of revenue streams associated with particular aspects of the company business (e.g. hedge funds) are expected to be in short supply. Thus, the supply of accountants with additional expertise, risk analysis and compliance issues in particular, are areas to be targeted in the future.

In addition, the introduction of the International Accounting Standard in 2005 may potentially create difficulties should sufficient numbers of accountants not be trained in the new reporting methods.

## SOC 252: Actuaries, Economists, Statisticians

### Demand

The SOC code 252 includes actuaries, economists and statisticians. These are professional occupations in that, in general, a practitioner is required to possess a degree in the relevant discipline. In 2002, there were 1,100 persons employed under 252 SOC.

The work of an actuary is closely linked to the assessment of risk; consequently actuaries are extensively employed in the insurance sector and they are also employed in areas in the public sector (these are often employed on a contractual rather than permanent basis, given the difference in remuneration) where, for example, detailed analysis of the financial implications of forecasts is required.

Statisticians are also employed extensively in the public sector, particularly in the Central Statistics Office. They are also employed in both public and private research institutions. Economists are employed throughout the economy in both the public and private sector.

The Society of Actuaries of Ireland states that there are approximately 300 persons registered as members of the society. These persons are qualified actuaries who are employed as actuaries in Ireland. An employment estimate of 300 is consistent with the CSO estimate of the number of persons employed in SOC 252 in the insurance sector, where most actuaries would be employed. Thus it is assumed, for the purpose of this analysis, that there are roughly 300 actuaries currently employed, and that the proportion of actuaries to total employment in SOC 252 is constant. Unfortunately, however, it is not possible to provide even an approximate estimate of the distribution of employment within SOC 252 between economists and statisticians.

The demand, in terms of past employment and the future employment for actuaries and economists/statisticians, is presented in Figure 3.9.

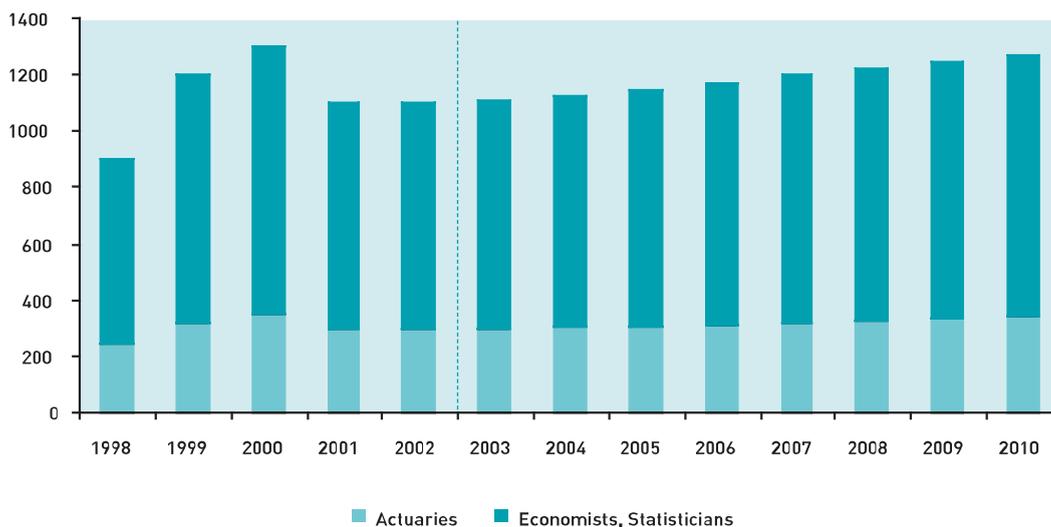
Historical Trend

The historical employment figures are presented to the left of the dotted line in the Figure 3.9. The figures show that the demand for economists/statisticians and actuaries was particularly strong during 1999 and 2000, which coincided with the peak performance of the economy. Employment declined to 1,100 in 2001, but it still remained significantly above the levels which pertained in 1998.

Forecast Trend

Employment has remained at approximately this level (i.e. 300 actuaries and 800 economists/statisticians) during 2002 and is forecast to remain at approximately these levels until around 2005 when a reasonably significant positive employment trend should emerge. Employment is expected to reach about 930 for economists and statisticians and 345 for actuaries by 2010. This would represent a 15 percent increase on the current (2002) employment levels.

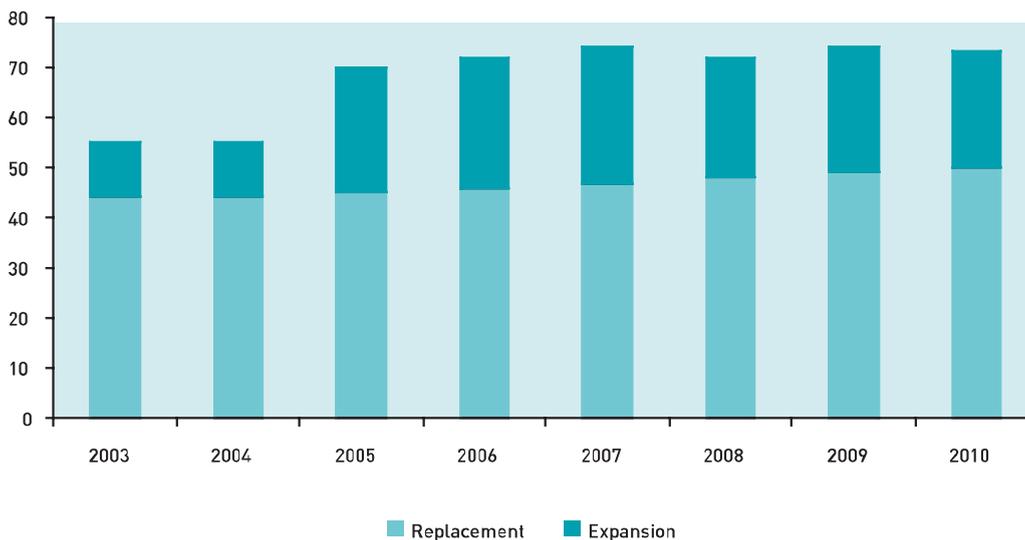
Figure 3.9 Total Labour Demand for Actuaries, Economists, Statisticians



Replacement Demand

It is expected that on average about 13 actuaries will be required each year to replace those who leave the occupation and about 34 economists and statisticians, resulting in a total replacement demand of about 370 over the forecast period 2003-2010.

Figure 3.10 Forecast Replacement and Expansion Demand for Actuaries, Economists, Statisticians



### Expansion Demand

It is projected that a total of about 172 actuaries, economists and statisticians will be needed over the period 2003-2010 to meet the requirements created by economic expansion. Demand for actuaries is expected to be driven, inter alia, by the expansion in life insurance and re-assurance, which have recently recorded significant growth in Ireland.

Thus, total recruitment demand is expected to be 545 over the 8 years period 2003-2010 inclusive or approximately 68 a year.

### Supply

#### Supply Stock

##### Actuary

There are two degree programmes in actuarial studies offered in Ireland. At UCD students can study actuarial and financial studies. DCU offers a degree in financial and actuarial mathematics. The Society of Actuaries in Ireland has 240 members registered for actuarial exams. The examination is designed by the Institute of Actuaries in the UK. Irish students can sit the exam at DCU, which facilitates the examination on behalf of the Society of Actuaries in Ireland. It is not necessary to have completed one of the two degrees programmes to gain admission to the professional examinations, although most of the students who study the discipline at undergraduate level do sit the professional examinations. However, some graduates from other undergraduate courses also complete the professional course. Persons must pass the professional examinations to qualify as an actuary in Ireland.

**Table 3.7 Students Registered for Actuarial Studies 2001-2002**

Institution	Number of students
University	263
Society of Actuaries	270
<b>Total</b>	<b>533</b>

Source: HEA, Society of Actuaries

### Economics and Statistics

In 2001/2, there were 1,769 students registered to be trained as economists and statisticians. Only 50 students are being trained specifically in statistics, of which the majority is at postgraduate level. Students with an economics background are employable as economists, but can also be employed for various positions in the financial services sector given that their skills are closely related to the skills used in financial areas.

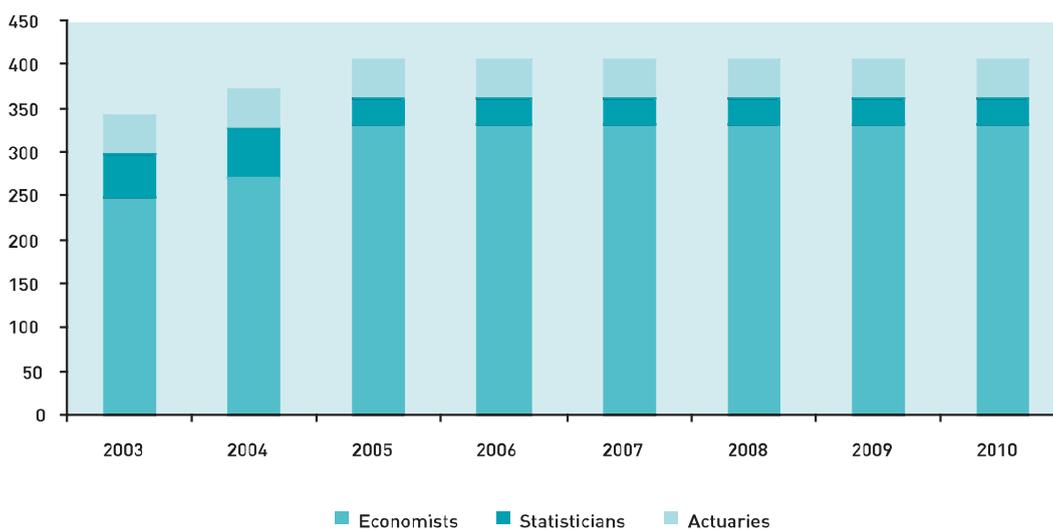
### Forecast Supply

Every university has at least one degree course in economics and a number of Institutes of Technology also offer degree programmes specialising in some aspect of economics. In total, these programmes produce about 225 graduates every year. In addition, there are a number of post graduate programmes which produce a total of 50 annually.

However, there is only one degree programme in statistics and it produces roughly 20 graduates. There is, however, a one-year post-graduate programme in statistics offered by Trinity College which produces roughly 30 graduates every year. Finally, there are a range of other post-graduate programmes in statistics on offer, but the numbers graduating are quite modest (e.g. 5-10 per annum). Of course, many other degrees contain modules on statistics.

Figure 3.11 shows the projected outflow of graduates from the third-level system for the period 2003-2010. A number of points of clarification are required. Firstly, the figures assume that 90 percent of these graduates are available to work in the relevant occupation in SOC 252. Secondly, the figures on actuaries include only the expected outflow from the professional courses of the Society of Actuaries because persons working as actuaries are legally obliged to possess this qualification.

**Figure 3.11 Approximate Annual Outflows of Actuarial, Economics and Statistics Graduates**



### Gap Analysis

#### Quantitative

The outflow of graduate economists is far greater than the projected market requirement for persons to work as economists. This is not surprising as economics graduates are employed in many different occupations in the economy.

Unfortunately, it is not possible to measure the difference between demand and supply in respect of statisticians because there is no information available on the numbers employed.

The annual outflow from the professional course for actuaries – estimated at 40 – should be sufficient to meet the market requirement. However, there is reason to believe that the number of graduates who are available to industry is significantly below the 90 percent which is the assumption applied to economists and statisticians. Thus for example, 32 percent of the members of the Society of Actuaries are employed in England. Moreover, many actuaries are employed with the large corporations worldwide, which offer notably high salaries.

#### Vacancies

In the 9 month period, August 2002-April 2003, there were 28 vacancies notified to the Irish Times in respect of SOC 252. Of this, 17 vacancies refer to actuaries, 9 to statisticians and 2 to economists.

### Earnings

The data shows that the average earnings for persons in the actuarial occupation declined from €97,008 in 2001 to €86,167 in 2002 suggesting an absence of any shortages. The most striking aspect of these figures is the relatively high level of remuneration associated with this occupation.

**Table 3.8 Average Salaries for Actuaries**

	1998	1999	2000	2001	2002
Actuary	57,714	87,381	93,011	97,008	86,167

Source: Ernst & Young Remuneration Guide, various issues

### Qualitative

Feedback from key experts in the financial sector indicated that some areas, particularly the public sector, were experiencing difficulties recruiting actuaries. This may reflect the relatively high levels of earnings associated with this occupation. Thus, the public sector has been obliged to introduce a special rate for actuaries to attract them. There is also a problem of attracting and retaining senior actuaries within and outside the financial sector. This arises from the tendency of the senior actuaries to move from actuarial practice to consultancy and strategic management.

### Issues

Within SOC code 252, the supply of actuaries, particularly at the senior level is likely to become a concern. The actuarial population is relatively small and competition for them is at a global level. Moreover, many actuaries strive to become strategic leaders of large corporations or independent consultants following several years of experience. As a result, the competition for actuaries qualified in Ireland and the attraction and retention of those at senior level are expected to become increasingly difficult.

## SOC 362: Taxation Experts

### Demand

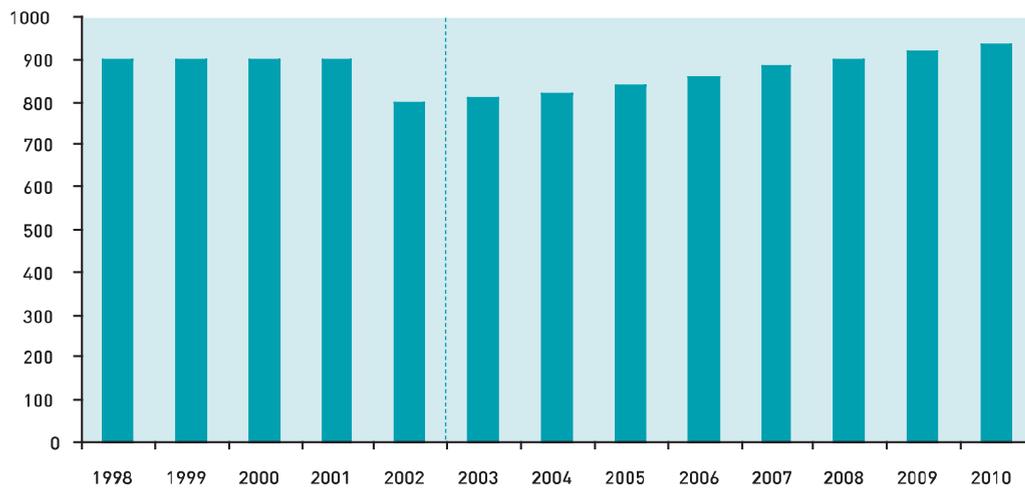
The SOC code 362 includes tax inspectors, consultants and advisors. Tax advice translates domestic and international taxation developments into business opportunities and is, therefore, required by all sectors of the economy. Moreover, tax expertise is closely linked with accounting and legal knowledge. As a result, many tax experts are classified as accountants or legal experts. This is illustrated by the fact that in 2002 there were 800 individuals employed as tax experts (Figure 3.12), while the Institute of Taxation reported 2,000 registered members. Of those registered as members of the Taxation Institute, more than a half were accountants and legal experts.

The demand, in terms of past employment and the future employment for taxation experts is presented in Figure 3.12.

### Historical Trend

The historical employment figures are presented to the left of the dotted line in the Figure 3.12. From the detailed analysis of the data, it transpires that almost all individuals classified as tax experts in 2002 were employed by the Revenue Commissioners or self-employed. The demand for taxation experts was virtually static until 2002 when there was a dip in employment from 900 to 800<sup>14</sup>

<sup>14</sup> This is likely to be due to sampling errors rather than reflecting a real decline.

**Figure 3.12 Total Labour Demand for Taxation Experts**

### Forecast Trend

It is expected that, due to the projected slow recovery in general economic growth in the short run, the employment stock will remain at approximately 2002 levels over the period 2002-2004. A recovery is projected for the medium to long run. Employment by the end of the decade is forecast to be 933. As the economy recovers in the latter part of the decade and the international dimension of Irish businesses increases, it is expected that a greater number of tax consultants will be required.

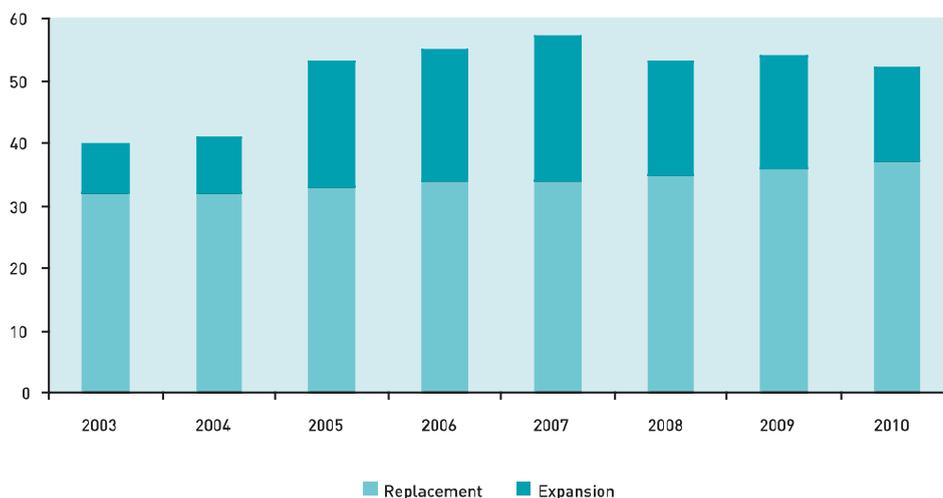
### Replacement Demand

The projections are presented in Figure 3.13. It is expected that on average 34 taxation experts will be needed annually to compensate for retirement, migration and other losses in the employment stock.

### Expansion Demand

It is projected that 133 tax experts will be needed over the period 2003-2010 to meet the requirements created by economic expansion.

Total annual recruitment demand is expected to be 40 in 2003, and to increase to 52 in 2010.

**Figure 3.13 Forecast Replacement and Expansion Demand for Taxation Experts**

## Supply

### Supply Stock

Training in taxation can be acquired only from the Institute of Taxation. Currently, there are approximately 950 students undertaking specialist taxation examinations and the number of new enrolments has been increasing over the last several years.

### Forecast Supply

A professional taxation qualification is not a statutory requirement. As a result, it is difficult to accurately quantify the supply of taxation skills. However, the data on professional taxation awards provide some indication of the future supply of fully qualified tax experts.

The Irish Taxation Institute is an exclusive provider of the professional taxation qualification, AITI (Associate of the Institute of Taxation in Ireland) in Ireland. On average, there are 200 students conferred with the AITI qualification each year.

## Gap Analysis

### Quantitative

By comparison of the projected annual recruitment demand and the projections of the numbers completing professional taxation exams, it is concluded that no shortages can be expected in the coming years.

### Vacancies

Over the last three quarters, there were 688 notified vacancies for the positions corresponding to the occupations in the SOC 362. Of this, 418 refer to taxation experts, while the remainder refers to taxation managers. This seems an overestimate given the total numbers employed under this SOC code, the recent employment trends, as well as the historical replacement rates for taxation experts. However, as explained before, the vacancies in the taxation area can be filled by taxation experts, as well as individuals classified as accountants or legal advisors. In that respect, the figure of 688 represents an overlap of those three related skills.

### Earnings

There is no data on taxation expert earnings available.

### Qualitative

From the interview with the Institute of Taxation representative, it was concluded that there are no current shortages of taxation skills. Moreover, no shortages are expected in the medium future.

## SOC 361: Underwriters, Claims Assessors, Brokers and Investment Analysts

### Demand

Persons employed in SOC 361 are located primarily in the financial sector (85 percent). This occupation code includes underwriters, claims assessors, brokers, investment analysts and a plethora of other occupations, which causes problems when trying to disentangle the numbers employed in the various occupations. Some occupations are confined to one financial sub-sector, but more are located across sectors, which further adds to the complexity of the task. It is difficult to state precisely the number employed in each of the occupations included in this code, as this data is not collected by any source, even professional bodies. The approach taken is to display the employment figures as a whole, while discussing the various sub-components contained therein.

### Historical Trend

Table 3.9 below displays the employment distribution of SOC 361 by financial sub-sector.

**Table 3.9 Employment Distribution of SOC 361, 2002**

Sector	Number Employed	%
Banking	2,000	22.5
Insurance	3,300	37.1
Other financial services	2,300	25.8
Non-Financial	1,300	14.6
<b>Total</b>	<b>8,900</b>	<b>100.0</b>

Persons employed in this occupational code are most commonly located in the insurance sub-sector. The occupations employed in insurance are underwriters and claims assessors. Sources within the industry advise that the split between these two occupations can be placed at approximately 65:35, giving 2,145 underwriters and 1,155 claims assessors. Additionally, a small number of underwriters are employed in banking, as mortgage and credit underwriters.

The next largest sector for employment is other financial services sub-sector. The main occupations contained within this sector are insurance brokers/agents and stockbrokers. According to the Central Bank, there are 1,880 multi-agency intermediaries and 530 authorised advisors. The former are attached to selling specific products for specific companies, while the latter are independent financial advisors. Not all persons registered with the Central Bank as multi-agency intermediaries are employed as such as their primary occupation. For instance, it is quite common for a person to own a small business and also be licensed to sell insurance products. Thus, not all 1,880 intermediaries are classified under this occupational code. As an estimate of the total number of insurance brokers, the Professional Insurance Brokers Association (PIBA) in Ireland has 718 members.

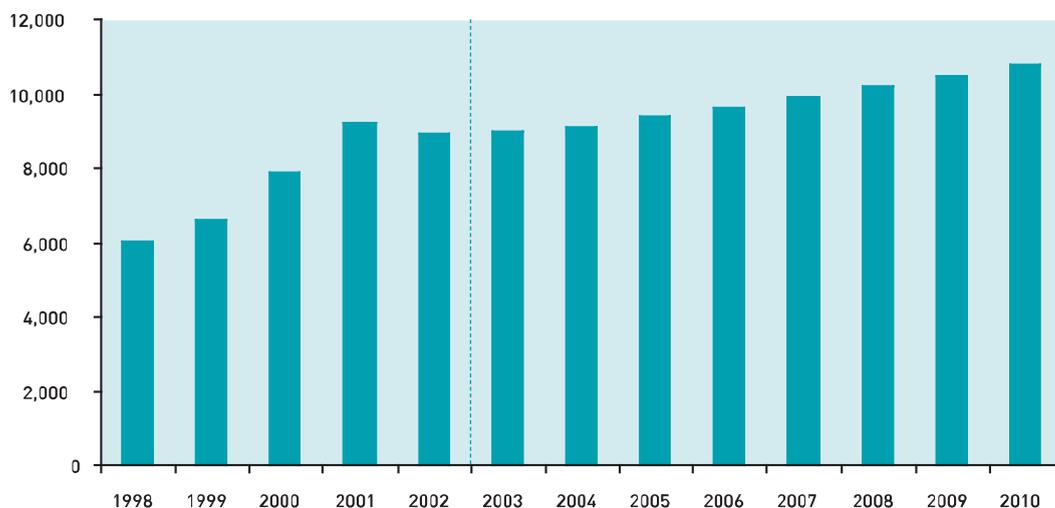
Within banking, there are a variety of occupations and very limited data. There are some 2,000 persons employed as, inter alia, credit analysts, investment analysts, foreign exchange dealers and deposit dealers; however, it is not possible to estimate the distribution of these occupations given the scarcity of data.

Persons employed in this occupation code outside of the financial sector are located in NACE code K, which is the sector involving real estate and renting.

<sup>15</sup> Insurance brokers are located in the other financial services sub-sector.

Figure 3.14 displays past trends and forecast employment of this code.

**Figure 3.14 Total Labour Demand for Underwriters, Claims Assessors, Brokers and Investment Analysts**



Employment in this category increased from 6,000 to 9,200 from 1998 to 2001, which is an increase of 50 percent. This increase was experienced in all sectors, with the exception of other financial services sub-sector, which experienced a slight decrease.

#### Forecast Trend

Figure 3.15 displays the forecast replacement and expansion demand for this occupational group from 2003 to 2010.

##### Replacement Demand

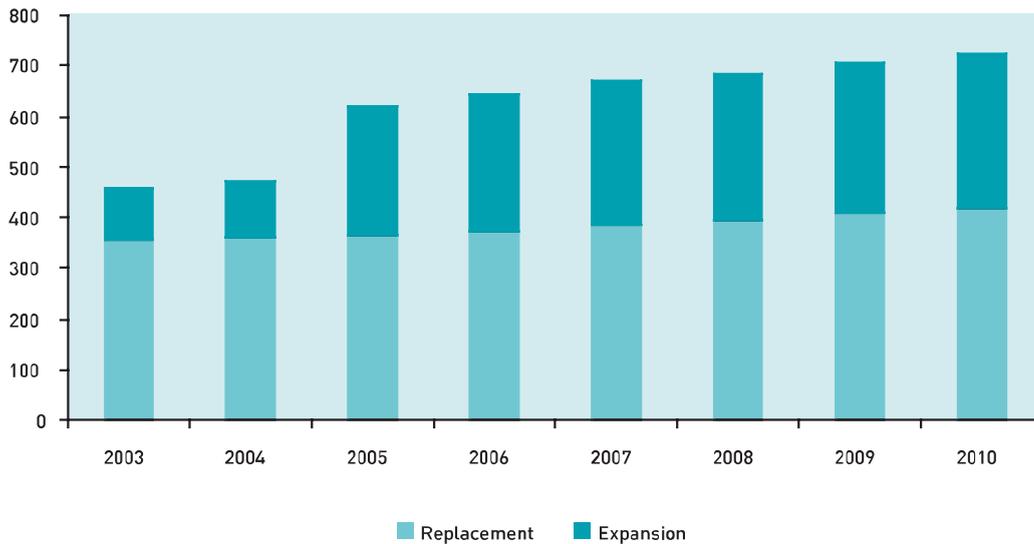
The replacement demand is predicted to be, on average, 383 persons a year to maintain employment at existing levels.

##### Expansion Demand

Employment is predicted to increase from 8,900 in 2002 to 10,800 in 2010. Total expansion demand is forecast at 1,910 for the period 2003 to 2010.

The average total future annual demand, combining expansion and replacement demand is forecast at about 600 persons.

**Figure 3.15 Forecast Replacement and Expansion Demand for Underwriters, Claims Assessors, Brokers and Investment Analysts**



### Supply

#### Supply Stock

It is not possible to isolate a primary source of supply for this occupational code for two main reasons. Firstly, there are a large number of occupations grouped together in this code; consequently, there is no unique source of supply. Secondly, it is not necessary to have any formal qualifications or relevant skills to commence employment in the majority of these occupations due to the high level of in-house training. Stockbrokers are required to have completed the Registered Representative Programme (provided by the Institute of Bankers) in order to be approved by the Irish Stock Exchange. Insurance brokers, while not obliged to have any qualifications, need to have obtained the Insurance Foundation Certificate or equivalent in order to join the IBA or PIBA. For all other occupations, it is not necessary to have completed any professional qualifications, although having relevant qualifications is clearly useful.

With no specific qualifications required, the pool of possible supply for this occupational code is potentially vast. Two areas are examined – professional qualifications and university courses.

#### Insurance

The University of Limerick, the Dublin Institute of Technology, the Insurance Institute of Ireland, the Life Insurance Association and FÁS currently offer education and training in insurance. The breakdown of students attending insurance courses is presented in Table 3.10. There were total 3,327 students taking insurance courses in 2002.

**Table 3.10 Students Registered for Insurance Training and Education 2001-2002**

Institution	Number of Students
Dublin Institute of Technology	41
University of Limerick	98
Insurance Institute of Ireland	723
Life Insurance Association	2,366
Institute of Bankers	75
FÁS	140
<b>Total</b>	<b>3,327</b>

Source: Department of Education, DIT, Insurance Institute, FÁS

The University of Limerick and the Dublin Institute of Technology (DIT) offer a degree programme in insurance. The Insurance Institute of Ireland had 723 students registered for professional exams. The education programme at the institute includes general insurance foundation certificate (GIFC), insurance foundation certificate (IFC), associateship (ACII) and diploma in insurance practice (DIP). The Insurance Institute also frequently runs short courses in specific insurance topics. The Life Insurance Association runs the following courses: qualified financial adviser, mortgage diploma, pensions diploma and fellowship diploma. A certificate in general insurance can be obtained at the Institute of Bankers in Ireland.

Since 1999, following a study by the ESRI and advice issued by the Irish Brokers Association about the excess labour demand in the insurance area, FÁS has been running a traineeship scheme for insurance broking officials. The scheme involves 11 weeks of coursework and an exam provided by FÁS, followed by a 29-week placement with an insurance company. The qualification acquired is a general foundation certificate in insurance awarded by the Insurance Institute of Ireland. There are approximately 120 persons trained annually. Since September 2002, FÁS has extended the traineeship and introduced a scheme for the financial advisor assistant for foundation insurance broker development, mainly for the life assurance sub-sector, which currently involves 20 students.

### Investment Analysis

In the area of investment analysis, the Dublin Business School runs a certificate in investment advice and a diploma in stock market trading. Since 2000, the internationally recognised qualification, chartered financial analyst (CFA) run by the US Association of Investment Management Institute and Research (AIMR), can be obtained in Dublin. The Society of Investment Analysts in Ireland on behalf of the AIMR facilitates the examination. The number of students currently registered for this exam is placed tentatively at 500.

The Institute of Bankers offers the following qualifications: a certificate in mutual fund services, a certificate in asset finance and lease, a certificate in investment advice (and certificate in financial advice (CFA)) and a certificate in investment planning (run in Northern Ireland). In 2002 there were 405, 114, 612 and 164 students registered for these courses, respectively. In addition, the Institute is offering a new course on credit and lending.

### Brokers

Insurance brokers can obtain the IFC as stated above. Stockbrokers are required to complete the Registered Representative Programme. The course runs twice a year with a size class of approximately 20 students. Historically, the pass rate has been 70 percent. Hence, approximately 30 students qualify annually.

## Gap Analysis

### Quantitative

Given the large number of occupations grouped together in this code, it is impossible to identify sources of supply and thus quantify any skills gaps.

### Vacancies

Over the period August 2002 to April 2003, there were 926 notified vacancies for the positions corresponding to the occupations in the SOC 361. The breakdown of the total number of vacancies within the occupational code is presented in Table 3.11.

**Table 3.11 Notified Vacancies for SOC 361**

Job title	Number of Vacancies
Underwriters	256
Claims	123
Brokers	132
Pensions	89
Investment Analysts	14
Credit /Risk Analysts	200
Portfolio Administrator (Middle and Senior Back Office)	71
Financial Analyst (including quantitative analysts)	41
<b>Total</b>	<b>926</b>

In the absence of data on employment for each of the job titles it is difficult to use vacancies as an indicator of shortages in the individual occupations. Overall, the total number of vacancies is high, which would suggest that there are shortages of at least some skills within this occupational code. However, it is likely that the figure reflects high turnover rates associated with the occupations within this SOC code, as commonly stated by the industry.

### Earnings

The evolution of salaries for the selected occupations within SOC 361 is presented in Table 3.12. With the exception of the underwriting assistant and claims manager, which experienced a modest increase, all occupations experienced a decline in salary in 2002. This would suggest that there have been no shortages of skills for these occupations in recent times.

**Table 3.12 Average Salaries for Underwriters, Claims Assessors, Brokers and Investment Analysts**

	1998	1999	2000	2001	2002
Senior Underwriter	60,128	64,232	84,365	94,203	77,129
Underwriter	43,415	41,928	43,485	51,338	44,088
Underwriting assistant	26,535	27,984	28,306	30,476	32,299
Claims manager		41,939	51,826	58,408	59,556
Claims assistant		22,084	23,162	24,210	22,400
Investment analyst	35,243		36,830	48,187	
Credit/risk analyst	39,721	36,029	40,375	41,436	36,009

### Qualitative

Sources within the industry indicate that shortages in supply are not a concern currently. It has been highlighted that, previously, there had been difficulties with high staff turnover. However, it was noted that the movement of staff was horizontal i.e. it remained mostly within the occupation and there was never a shortage in terms of the overall supply.

### Issues

There are four main issues at stake regarding SOC 361. Firstly, with the changing financial environment, there is an increase in the demand for new financial products. Thus, for example, in insurance, it is predicted that there will be growth in areas such as directors and officers insurance and employment practices liability. However, this is not an immediate source of concern in terms of skills gaps as the sector is capable of providing extensive in-house training.

Secondly, the Insurance Industry Federation recently stated that the recent media emphasis on insurance fraud has led to an increase in the demand for insurance candidates with a wide variety of experience and skills. In particular, there is a demand for persons with knowledge of both civil and criminal law, and insurance claims and practices.

Thirdly, it is expected that the Irish Financial Services Regulatory Authority will target these occupations in the near future. Consequently, it is likely that it will soon be mandatory for persons employed in these occupations to have the qualified financial advisor or equivalent qualification in the coming years. It is possible that the implementation of this requirement may create difficulties, particularly for smaller firms.

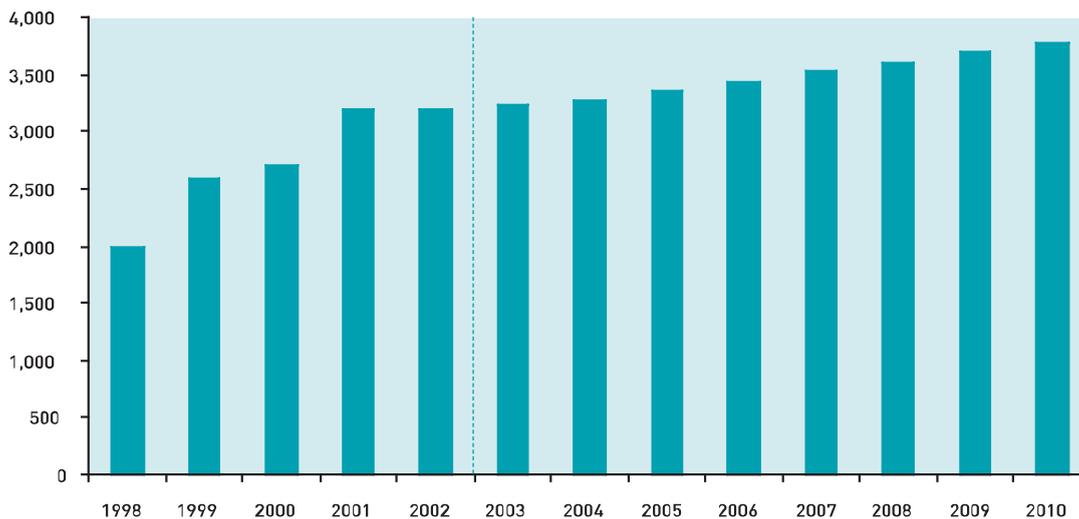
Finally, it is expected that Ireland's ageing population together with increased life expectancy will lead to considerable growth in pension funds. This will have a positive impact on activity in the funds industry in the long-term and, assuming minimal funds losses to overseas companies, this is likely to increase demand for financial analysts.

## SOC 130: Credit Controllers

### Demand

The SOC code 130 consists of credit controllers only. In 2002, credit controllers accounted for 2.5 percent of total persons employed in the ten identified financial occupations. Of the 3,200 credit controllers employed in 2002, 21.9 percent were employed in the financial sector, while 78.1 percent were employed in the non-financial sector. The significant proportion of credit controllers employed outside the financial sector reveals that this is one of many financial occupations that are wide-spread in the non-financial sector. In 2002, approximately 700 credit controllers were employed in the banking sector and approximately 100 persons were employed in the insurance and other financial services sector. Credit controllers are employed both in the private and public sector. There were 3,125 credit controllers employed as employees and 75 were classified as self-employed in 2002.

Figure 3.16 shows the demand, in terms of past employment trends and future employment trends for credit controllers.

**Figure 3.16 Total Labour Demand for Credit Controllers**

### Historical Trend

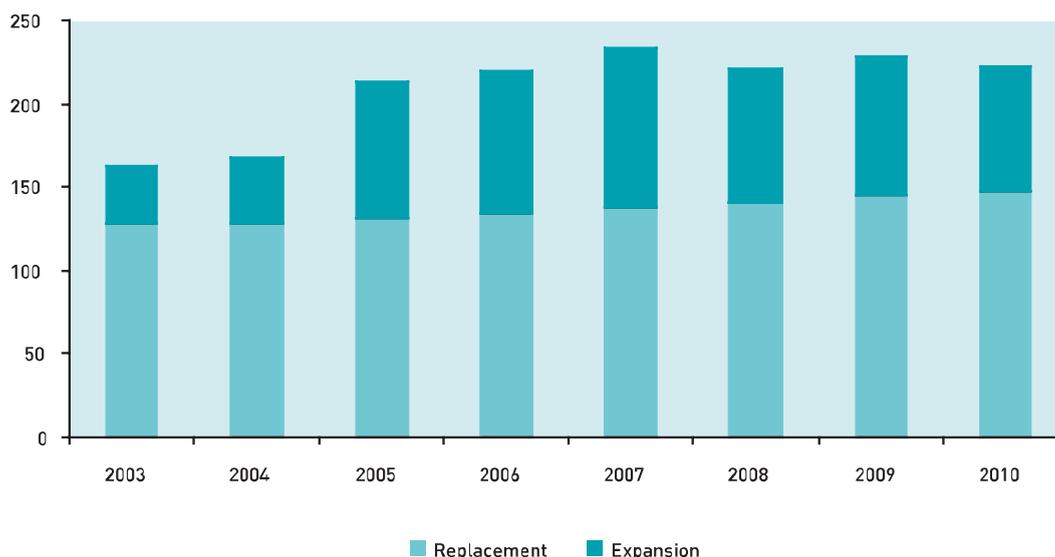
Historical employment figures are presented to the left of the dotted line and forecast employment trends are presented to the right of the line in Figure 3.16. The figures illustrate that there was continuous growth in employment recorded from the period 1998 to 2002. Employment reached 3,200 in 2002 from 2,000 in 1998 which represents a significant increase of 60 percent. The increased demand for credit controllers reflects the increase in borrowing in the banking sector and the corresponding number of defaults. Moreover, in recent years a number of leading international companies (e.g. Phillips and Xerox) began to conduct their credit management activities at their Financial Shared Services Centres (FSSCs) located in Dublin's IFSC. Consequently, this has led to increased demand for credit controllers by such companies in response to greater levels of activity in the credit management area. It must be noted that many in industry and some recruitment agencies are of the belief that employment for credit controllers was much higher over the period 1998 to 2002 and believe that some people conducting credit control activities were classified as accounts clerks as opposed to credit controllers.

### Forecast Trend

Employment is forecast to grow by around 3 percent in the medium-term (2004-2005) and to reach 3,773 by 2010 which represents a 12 percent increase.

### Replacement Demand

Figure 3.17 shows forecast replacement and expansion demand for credit controllers over the forecast period 2003 to 2010. It is expected that on average about 137 credit controllers will be required each year or a total of 1,094 to replace those who leave the occupation over the forecast period.

**Figure 3.17 Forecast Replacement and Expansion Demand for Credit Controllers**

### Expansion Demand

It is projected that approximately 573 credit controllers will be required over the period 2003 to 2010 in order to meet the requirements created by economic expansion. The share of credit controllers in the banking sector is expected to increase marginally to 2.3 percent in 2010 from 1.5 percent in 2002.

Thus, total recruitment demand is expected to be 1,667 over the eight years period 2003 to 2010 inclusive or approximately an average of 200 per annum.

### Supply

There are no mandatory qualifications required for a person to work as a credit controller. The background of persons employed as credit controllers varies from the leaving certificate to degree holders, although the majority of credit controller trainees in the banking sector have a degree. To pursue a career as a credit controller, a person can commence working in a credit management department of a company upon completion of the leaving certificate or a higher level of education (which varies widely) and avail of on-the-job in-house training or by completing professional exams in credit management, prior to or while working in the area.

### Supply Stock

Currently, the Institute of Credit Management offers a one-year certificate for credit controllers who want to learn more about credit management and have a recognised national qualification. There are currently 45 students registered for the course. The Institute also offers a four years degree course in credit management which is run by the DIT. Approximately 20 students qualify annually.

### Forecast Supply

A credit controller qualification is not a statutory requirement. As a result, it is difficult to accurately quantify future supply flow of credit controller skills.

### Gap Analysis

#### Quantitative

Quantitative analysis of the skills gaps for credit controllers cannot be conducted given that it is impossible to quantify future supply.

### Vacancies

During the period August 2002 to April 2003, there were 246 notified vacancies to the Irish Times for credit controller positions.

### Earnings

There is no earnings data available on credit controllers.

### Qualitative

From consultations held with recruitment agencies and industry representatives of the credit management sector, it was concluded that there are no shortages of skills for credit controllers. It was highlighted that relatively short on-job training is sufficient to prepare an individual with good generic skills to work as credit controller.

## SOC 410: Accounts and Wages Clerks, Book-Keepers, Other Financial Clerks

### Demand

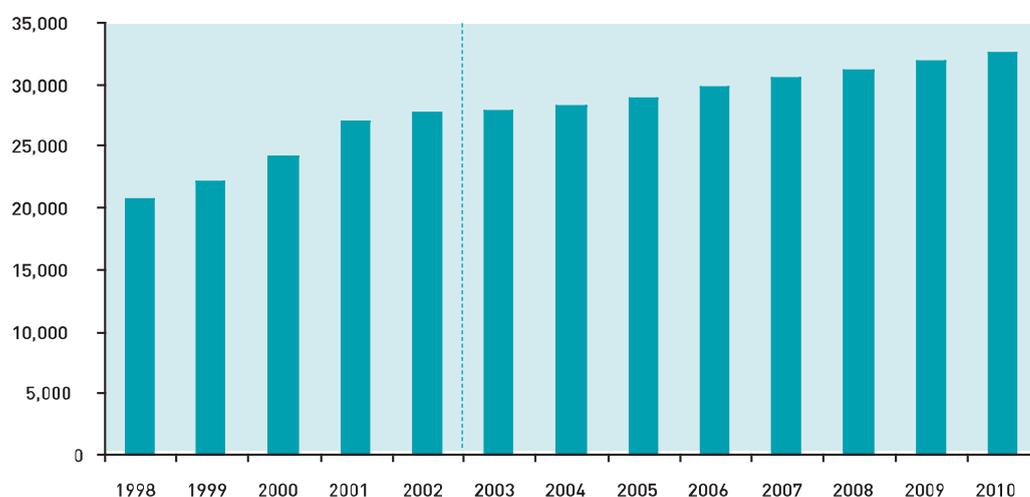
The SOC 410 includes accounts and wages clerks, book-keepers and other financial clerks. The skills associated with those occupations are not employed exclusively in the financial sector, but rather represented in all sectors of the economy. In fact, in 2002 of a total of 27,600 employed under this SOC, only 23 percent were employed in the financial sector, while the remainder was employed outside of the sector. Equally, within the financial sector, accounts clerks *et al.* are employed throughout the sector, although predominantly in the banking and insurance sub-sectors.

The demand in terms of past employment and the future employment for accounts clerks *et al.* is presented in Figure 3.18.

### Historical Trend

There has been a continuous growth in employment recorded for the accounts clerks *et al.* until 2002 (left of the dotted line on the Figure 3.18). Following the slowdown in the overall economic performance, and the performance of the financial sector following September 11th, there was a significant slowdown in employment growth for clerical staff.

**Figure 3.18 Total Labour Demand for Accounts and Wages Clerks, Book-Keepers, Other Financial Clerks**



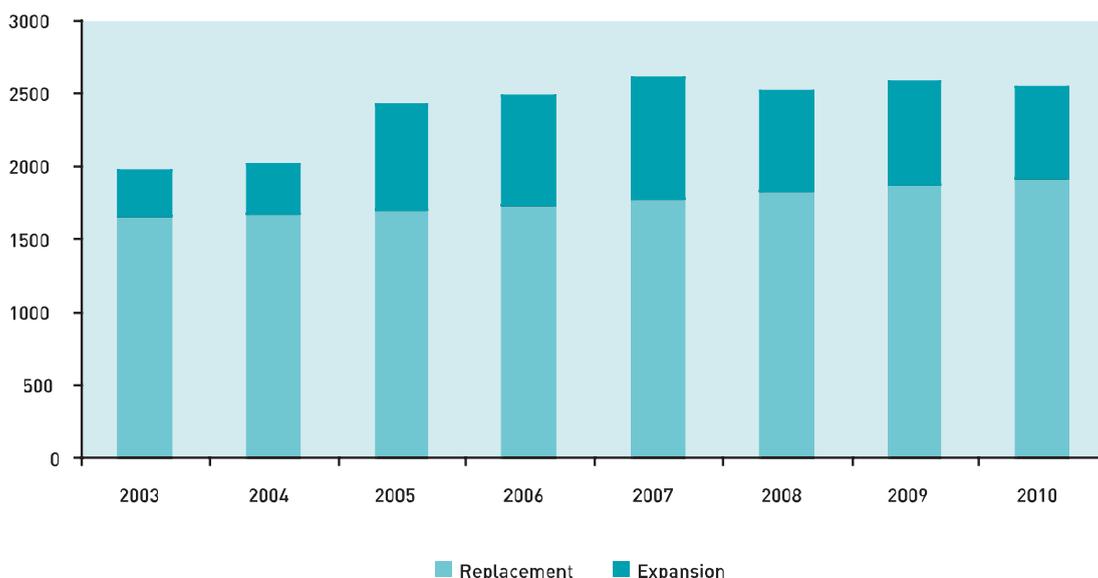
### Forecast Trend

It is expected that, due to the projected slow recovery in general economic growth and the financial sector in the short run, the employment stock will remain at approximately 2002 levels over the period 2002-2004. Recovery is projected for the medium to long run. Employment by the end of the decade is forecast to be 32,550. Positive growth in employment is expected to resume despite the expected automation of some clerical tasks. The total recruitment demand is expected to rise from 1,969 in 2003 to 2,541 in 2010.

### Replacement Demand

The projections of the replacement demand are presented in Figure 3.19. On average, 1,771 clerks will be needed annually to compensate for retirement, migration and other losses in the employment stock.

**Figure 3.19 Forecast Replacement and Expansion Demand for Accounts and Wages Clerks, Book-Keepers, Other Financial Clerks**



### Expansion Demand

Although in the short run expansion demand will be low, in 2010 it is expected that additional 626 clerks will be required. The share of accounts clerks *et al.* is expected to fall to 20 percent and 8 percent in 2002 to 18 percent and 5 percent in 2010 in insurance and other financial services sub-sectors, respectively. This fall will reflect structural changes within the two sub-sectors in terms of automation of back office activities and other financial processes.

### Supply

The sources of supply for occupations in SOC 410 cannot be identified. No specific financial skills are required to work as an accounts clerk and wage clerk, book-keeper or other financial clerk. However, many employees receive training in post-leaving certificate and FÁS courses. Training also takes the form of on-the-job, in-house training. The selection of recruits is based on an assessment of the candidates' generic skills, such as computer literacy, numerical and writing skills, personality etc. Employees in these occupations vary remarkably in terms of their educational background. They range from the leaving certificate to degree holders. In fact, the findings from the first destination of graduates in 2002 survey suggest that some of the recruits for these occupations come from business and commerce, as well as arts, science and humanities university programmes. It is therefore impossible to examine supply of these skills in terms of past and future stocks and flows.

## Gap Analysis

### Quantitative

Quantitative analysis of the skills gap for SOC 410 cannot be conducted given that it is impossible to quantify the supply of financial clerical skills.

### Vacancies

Over the last three quarters, there were 2,957 identified vacancies (53 notified to FÁS and 2,904 advertised in the Irish Times) for the positions corresponding to the occupations in SOC 410. This is a high number of vacancies and is likely to be associated with the high turnover rates characteristic for this occupational group. Moreover, during the last year there has been a significant recruitment activity originating from a very small number of large employers (e.g. Merrill Lynch and Citibank). A slowdown or a reverse of recruitment activity by one or all of them could create a significant swing in the demand situation described above, leading to excess supply.

### Earnings

There is no earnings data available for the accounts clerks *et al.* for 2002. Table 3.13 presents salaries for treasury and payments clerks, the only two available occupations. The data shows an increasing trend for the period covered. However, in the absence of more recent salary data, earnings cannot be used as an indicator of current shortages in financial clerical occupations.

**Table 3.13 Average Salaries for Treasury and Payments Clerks**

	1998	1999	2000	2001
Treasury clerk	17,490	19,323	24,534	
Payments clerk	19,346	20,673	21,985	22,438

Source: Ernst & Young Remuneration Guide, various issues

### Qualitative

From the interviews with financial sector representatives it was concluded that there are no shortages of skills for the accounts clerk, book-keeper and other financial clerk positions.

### Issues

Along with the general rise in the educational level for all occupations employed in the economy, it is envisaged that the educational level of clerks will increase. The set of generic skills necessary for these positions will increase to include a wider range of IT skills. It is expected that the proportion of degree holders among SOC 410 recruits will increase, given the overall increase in the national education levels, as well as the looser labour market in the short run.

### SOC 411: Counter Clerks and Cashiers

#### Demand

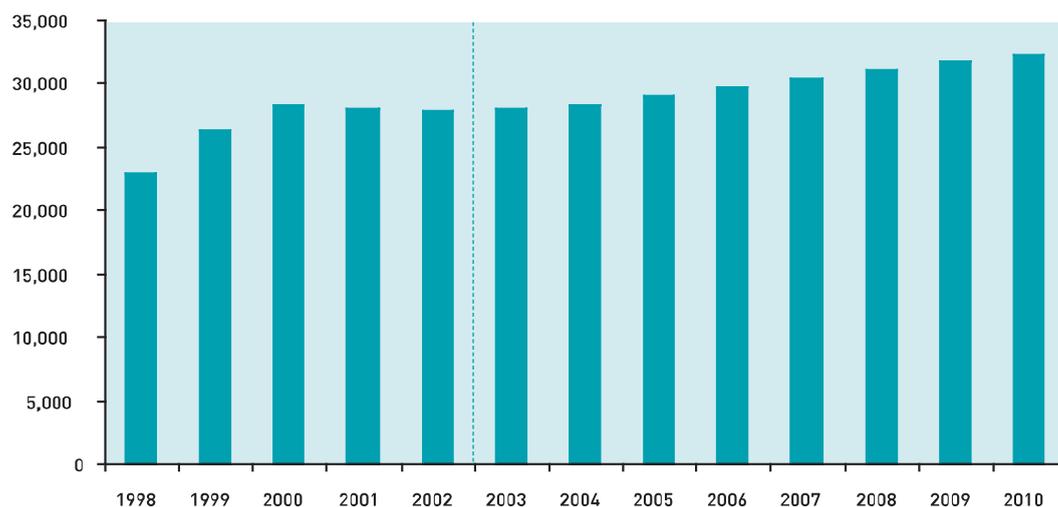
The SOC 411 consists of counter clerks and cashiers. The skills associated with occupations classified under this SOC are employable across all sectors of the economy (both the financial services and non-financial sector). In 2002, of a total of 27,800 persons employed in occupations classified under SOC 411, 67 percent were employed in the financial services sector, while 33 percent were employed outside of the sector. Within the financial services sector, counter clerks and cashiers are employed across the sector, although these occupations are predominantly employed in the banking sector, which accounted for 18,300 persons in 2002. Persons working in the non-financial sector work in the wholesale and retail sector, transport and communication sector and in hotels and restaurants.

Figure 3.20 shows the demand, in terms of past employment trends and future employment trends for counter clerks and cashiers.

#### Historical Trend

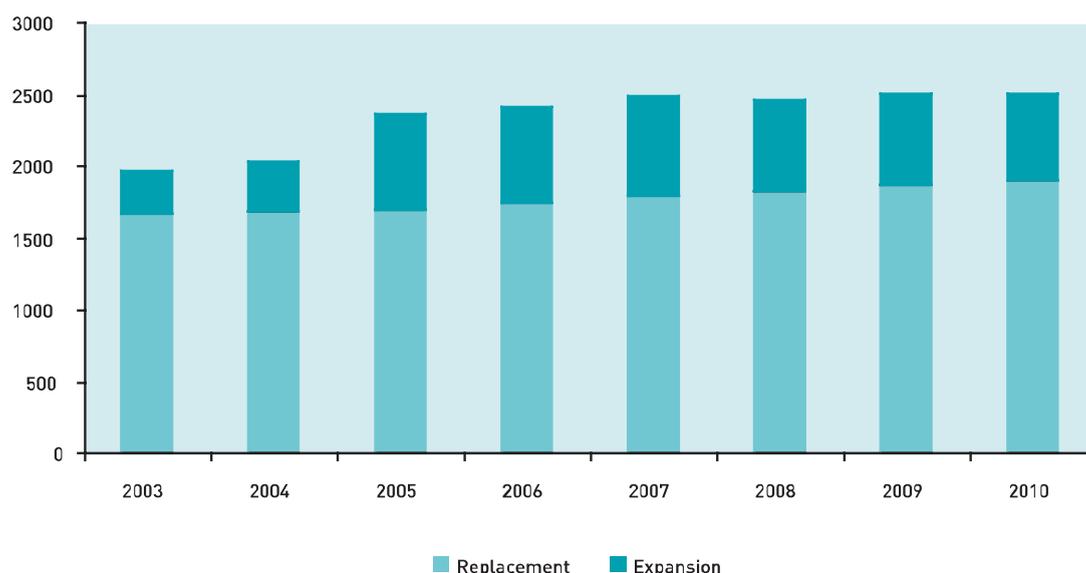
The historical employment figures are presented to the left of the dotted line in Figure 3.20. The demand for counter clerks and cashiers peaked in 2000 with 27,800 persons employed and decreased marginally in 2002. By contrast, the proportion of such occupations in the banking sector has been declining significantly. In the banking sector, the proportion of these occupations decreased from 55.2 percent in 1998 to 42.3 percent in 2002. The structural change has been brought about by the diffusion of information technology throughout the banking sector and the introduction of the automatic teller machines (ATM), as well as internet banking.

**Figure 3.20 Total Labour Demand for Counter Clerks and Cashiers**



#### Forecast Trend

In the short to medium term, due to the projected slow recovery in economic growth, only a slight increase in employment is expected for counter clerks and cashier over the period 2002 to 2004. However, with the prospects for a higher level of growth in the medium to long term, employment for these occupations is expected to increase from 28,094 in 2003 to 32,363 in 2010 (a 15 percent increase). Employment for these occupations is forecast to grow, despite the expected structural changes brought by technological progress and the expected increase in the automation of administrative tasks.

**Figure 3.21 Forecast Replacement and Expansion Demand for Counter Clerks and Cashiers**

### Replacement Demand

Figure 3.21 shows forecast replacement and expansion demand for counter clerks and cashiers over the forecast period 2003 to 2010. It is expected that on average about 1,774 clerks will be required per annum to replace those who leave the occupation over the forecast period.

### Expansion Demand

It is projected that about 4,500 persons will be required over the forecast period in order to meet the requirements created by economic expansion. Employment in the banking sector is expected to increase from 47,571 in 2003 to 55,058 in 2010 (a 16 percent increase). However, the share of these occupations in the banking sector is expected to continue to decline from 41.3 percent in 2003 to 34.3 percent in 2010.

Thus, total recruitment is expected to be 18,758 persons over the 8 year period 2003 to 2010 inclusive or approximately 2,300 a year.

### Supply

There are no identifiable sources of supply for occupations in SOC 411. To obtain employment as a counter clerk or cashier no mandatory qualifications are required. Training can take the form of on-the job or in-house training after the leaving certificate or a third-level qualification. The background of persons employed as counter clerks and cashiers varies in terms of education and the type of qualification held. The level of education varies from leaving certificate to degree holders. Therefore, it is impossible to examine supply of those skills in terms of past and future stocks and flows.

### Gap Analysis

#### Quantitative

In the absence of quantitative data on supply for SOC 411, quantitative skills gaps cannot be established.

#### Vacancies

In the 9 month period, August 2002 to April 2003, there were 51 notified vacancies to the Irish Times for positions corresponding to SOC 411. This figure suggests that there are no difficulties recruiting counter clerks and cashiers.

#### Earnings

There is no data available on the salaries of counter clerks and cashiers.

### Qualitative

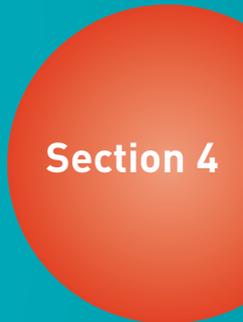
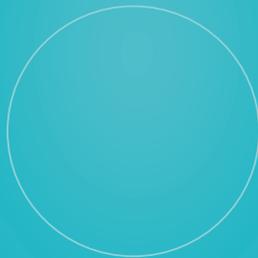
From interviews with financial sector representatives it was concluded that no future shortages are envisaged, given that jobs in this code require relatively low skill levels.

### Issues

Given the expected trend for higher level educational qualifications for all occupations in the economy, it is expected that the educational level of counter clerks and cashiers will increase also. In the long-term, it is expected that the proportion of degree holders in this occupational category will increase. The set of generic skills necessary for these positions will increase to include a wider range of IT skills, given the rise in a new culture of client interface where the traditional face-to-face banking transactions have been increasingly replaced by computers.

<sup>16</sup> It must be noted that the Irish Times is inadequate source of information for this job category given that in general it does contain comprehensive cover of clerical vacancies.

## Summary and Recommendations



Section 4

## 4. Summary and Recommendations

### 4.1 Developments Expected to Affect Future Demand and Supply of Financial Skills

#### Demand

The principal drivers of future labour demand for financial skills are: overall economic growth, regulation, technological change and the globalisation of the financial services sector.

Future macroeconomic performance is important for the future employment of persons with financial skills, given the widespread integration of financial skills in all sectors of the economy. During the period 2003 to 2004, the economic growth rate of the global and domestic economy was less favourable than the rates of growth that were anticipated by most economic commentators in last year's forecasts. The ESRI, in this year's forecasts, adjusted output and employment growth downwards to reflect weaker economic performance for the period 2003 to 2004. Therefore, it can be expected that growth in employment across all financial occupations will be exceptionally slow over the next two years. However, economic growth is expected to recover beyond 2004, which should result in recovery in employment in financial occupations.

As noted above, one of the key factors determining the future performance of the financial services sector and its associated employment demand for financial skills is the regulatory environment. An important development in this area is the recent establishment of the Irish Financial Services Regulatory Authority (IFSRA). This new body is the single regulator for all Irish financial institutions and is responsible for both prudential and consumer protection issues across the whole sector.

The creation of the new financial services regulatory body will have implications for the employment of financial skills. On the one hand, it is possible that the regulator could introduce mandatory qualifications that will affect some financial occupations. In the short run, the introduction of mandatory qualifications would impose rigidity on the labour market, as the supply of persons previously sourced for work in regulated occupations would be reduced to those holding the required qualifications. On the other hand, regulatory changes are likely to produce demand for new financial skills such as compliance officers. Moreover, regulation of the financial services industry will provide increased protection for consumers and it is likely to ensure confidence, stability, competitiveness and reputation for the financial services industry overall.

The financial services sector is expected to continue to respond to advances in technology, especially ICT. Technological developments have increased the scope for automation of processes, which reduce costs and have made the delivery systems for financial products more sophisticated, increasing the scope for remote access using methods of direct banking via ATM machines, the telephone or the internet (banking on-line). Cheaper and more advanced computers also facilitate the development of new financial instruments making it easier to customise products. The impact of these developments on the demand for financial skills has been, and will continue to be, significant in the future.

Technological changes are structural in nature. Some of the key responses to increased automation are the development of new products, new forms of selling and process re-organisation which is all likely to impact upon the number and types of jobs on offer in the sector. Most of the developments are designed to raise productivity and reduce the number of employees required per unit of output, which negatively affect employment. It is expected that greater levels of synergy between financial and IT skills will be needed for professional and clerical financial occupations. This strategy is required in order to meet the requirements of future technological changes which will include the design, maintenance and use of the information systems, and product innovation which will be required in new market conditions. Although direct selling over the internet and process automation is expected to continue to reduce the

demand for relatively unskilled clerical operatives (e.g. telesales persons and data entry operatives), it is expected to increase the demand for professional and IT staff in order to design and maintain expert systems. In some activities, such as banking where there was an extensive retail branch network, the impact is also expected to be felt through closure of some branches and reduced demand for bank managers.

As globalisation continues, countries experience pressure to open up their domestic service markets to international competition and the growth of cross-border services provision. Consequently, many countries have opened their financial system to foreign competition. Financial liberalisation has progressed through a range of EU (creation of the single market for financial services) and non-EU measures (the financial services provisions of the WTO's GATS). These measures have increased the openness and competitiveness of the international financial sector. Globalisation will continue to increase in the future and this will have implications for employment changes in the Irish financial services sector. For example, there will be increased competition for the management of funds on an international level. Thus, Ireland will have to sustain its competitiveness as a location for the management of funds in order for employment levels in the fund management sub-sector of the financial services sector to increase.

Increased global competition in the market for financial services has spawned a series of mergers and acquisitions (M&As) between financial institutions as they seek economies of scale, access to new markets or both. Examples of this response are evident in the banking sector internationally. These structural changes are likely to continue in the future and the employment implications arising from them will lead to the loss of a significant number of jobs as part of the restructuring process.

In general, higher level skills will be required in order to meet the demands of the financial services sector. This will occur as a direct result of a need for creating higher value-added products and services in response to the need for Ireland to remain competitive on an international level in the provision of financial products and services.

### Supply

The demographic structure and educational provision in the Irish economy are fundamental for the future supply of skills.

The demographic factors affect labour supply in all sectors of the economy. While Ireland's population is aging, forecasted higher participation in higher education is expected to offset the slower growth in school leavers in the future. As a result supply for professional occupations is not expected to be greatly affected by the demographic changes.

In terms of the education provision, there has been a notable response to demand for particular skills by some universities and ITs. In particular, DCU and UCD have introduced programmes in response to specific labour market demands in the financial services sector. Some private colleges have already introduced in their curriculum some specialist financial training. The professional institutions are also likely to respond to the specific skills needs of the sub-sectors of the financial services sector that they represent. For instance, the Institute of Bankers has introduced three new courses in their education programme for the 2002 to 2003 academic year. New courses include: a Diploma in Mutual Fund Services, a Specialist Certificate in Credit and Lending and a course on Customer Relationships and Services. In November 2002, the Institute also established the Association of Compliance Officers in Ireland (ACOI). This association was established to develop standards of regulatory compliance and to improve the understanding of the compliance issues. Finally, FÁS has introduced two traineeship programmes to meet the requirements of the insurance sector for qualified financial advisers.

Although, new courses for specialist financial skills have been emerging from a number of educational sources, there is a view in the industry that there has been no co-ordinated response to the industry's needs. There is a notable absence of a strategic framework in which the providers of financial education and training, financial regulatory bodies and the financial industry are brought together.

An important development in this respect is the establishment of the ISFRA, as well as the decision by the National College of Ireland (NCI) and supported by the Industrial Development Authority of Ireland (IDA) to establish a new financial education and training provider – the International Financial Services Institute of Ireland (IFSI). The IFSI will be based in the new NCI campus at the Custom House Docks in Dublin. It is due to be open to students in autumn 2003. The purpose of the institute is to provide education and training, as well as research facilities for the financial services industry.

Overall, in terms of the provision of financial skills, the market appears to be responding to the demand for such skills. The institutions that most notably responded to the market developments included: universities, private colleges, professional institutions and FÁS. It is expected that this will continue into the future.

#### 4.2 Implications at the Occupational Level

In the short run, the supply of financial skills appears to be sufficient to meet demand. Employment growth is not predicted to be significant in the short run; thus, demand for the ten financial occupations should not increase significantly within the financial sector. Furthermore, it is a candidate-rich market at present and redundancies in London and New York have further increased the available pool of workers with financial skills.

Nevertheless, some occupations are proving difficult to source, such as actuaries, project accountants and quantitative modellers. Only a small number of persons with these skills are required by the sector. However, these are highly skilled positions that are in short supply. As mentioned previously, in some cases it is a combination of particular skills that is lacking. Those mentioned by the industry include project accountants and quantitative modellers who have both mathematical and business/ financial skills and compliance officers with legal and financial skills.

In the short to medium term, some shortages may exist as a result of new regulations being introduced in the sector. There is a possibility that mandatory qualifications similar to the recently established Qualified Financial Adviser (QFA) qualification by the IFSRA will become mandatory across a wider range of occupations.

A recently introduced EU Regulation will have an impact on accountant's skills, as all EU-listed companies must be able to produce consolidated financial statements in accordance with International Accounting Standards by 2005. According to the industry, the accounting profession is facing a serious shortfall in practicing accountants who are trained in accordance with international accounting standards. Unless the majority of accountants in practice are retrained urgently, there will be a deficit in adequately trained accountants in 2005.

A new report by PriceWaterhouseCoopers states that many financial institutions have underestimated the urgency and gravity of conversion by assuming that the new standard is simply a technical accounting issue. The change will alter how profits and earnings per share are reported. Financial institutions could well have to change products, investment strategies and risk management policies to address the volatile results that the new reporting standard may produce. Successful implementation will require a multi-disciplinary effort of treasury, systems, risk management and accounting skills.

<sup>17</sup> Sunday Business Post, 27 April 2003.

<sup>18</sup> <http://www.pwc.com/ie/eng/about/press-rm/news-rel/index.htm>

However, despite the approaching deadline for compliance with the new accounting standards, most accounting professionals continue to comply only with British and Irish accounting standards and just over half of Irish business managers are unaware of the impending introduction of the standards.

In the long run, no acute shortages are predicted. Notwithstanding this, an area that warrants attention is the increasing demand for persons with combined skills.

As stated previously, there is an increased demand for compliance officers in the financial sector, due to concerns caused by recent financial scandals and subsequent regulations. As the scope of regulations increases, the demand for compliance officers will rise correspondingly. An Association of Compliance Officers in Ireland (ACOI) was established in November 2002, which reflects the growing presence of this new occupation.

With improved global economic growth which will result in an increase in employment growth in the financial services sector at both domestic and global level, it may prove difficult to source professional financial specialists for the sector as greater levels of growth will intensify competition and recruitment of such specialists.

### 4.3 Recommendations

The financial services sector experienced strong growth during the latter half of the last decade and, as shown in this report, the education system responded by introducing a number of education initiatives. Consequently, this report does not propose any specific measures in respect to how the education system should be modified to provide education and training for financial skills. However, there are some areas that require attention and the recommendations associated with them are discussed below.

As mentioned in Chapter III, the Irish Financial Services Regulatory Authority is expected to introduce mandatory qualifications for financial advisors and possibly some other occupations within the financial sector. While this is currently not an issue, it is likely that the introduction of any new qualification requirements could lead to shortages of people trained to meet them. Since this is an important potential issue, it is recommended that the market and the regulatory environment should be closely monitored to avoid any acute initial skills shortages in an event of a regulatory change.

It is also recommended that the FÁS 'Insurance Advisors Traineeship Course', which has been introduced on a pilot basis in the North-East region, should be extended to other regions. This programme is supported by the industry and it has been very successful in securing employment for the participants. It also provides the industry with a cadre of people who are qualified to work as 'financial services advisors' – albeit at the more junior level.

As discussed earlier in the report, there is an issue of retaining actuaries at senior level. The difficulty arises due to the tendency of experienced actuaries to move to consultancy or company strategic management. This can be regarded as a positive wastage, given that overall, the expertise is not lost, but transferred to a different business area. However, it does raise an issue of replacement of those who move from actuarial practice to management or consultancy. It is suggested that this issue and the option of greater intake of persons qualifying for actuaries be examined by the Society of Actuaries, as well as relevant universities that provide initial actuarial education.

It is also recommended that the newly established International Financial Services Institute of Ireland should ensure that the programmes to be offered reflect the specific requirements of the industry, as well as the changes in the regulatory environment. The portfolio of courses should reflect the need of the industry for persons with a combination of skills such as accounting and business processes, finance and quantitative modelling etc.

<sup>19</sup> According to a study by Deloitte and Touche, reported on [http://archives.tcm.ie/breakingnews/2003/04/22\\_story96315.asp](http://archives.tcm.ie/breakingnews/2003/04/22_story96315.asp)

It is worth highlighting that with global economic recovery, it may prove difficult to source professional specialists in the context of more intense international competition for their skills. Similarly, when the information technology (IT) sector recovers, it may prove difficult to source information technology specialists for the financial sector.

Finally, the analysis suggests that a crucial factor in ensuring that no acute shortages occur in financial occupations is a provision of people with good fundamental numerical and writing skills. In general, the competency in this areas is acquired in the secondary education and it is essential to ensure that high standards in this respect are sustained.

To summarise, the report includes the following four recommendations;

- Changes in the financial regulatory environment and their implications on the supply should be closely monitored; along with other sources, SLMRU financial skills monitoring reports could be used for this purpose
- The FÁS Traineeship for junior financial advisors in the insurance industry should be extended to other regions
- The demand for actuaries should be closely monitored
- The portfolio of courses, offered by the proposed new financial services institute at NCI, should reflect the need to develop combined skills among those working in financial occupations.