SUMMARY

Output growth in 1999 increased by 9.8 per cent in real GDP and 7.8 per cent in real GNP according to the preliminary estimates of the national accounts. The remarkable growth throughout the 1990s has shown no sign of slowing, quite the contrary. During the "Celtic Tiger" phase since 1994, the average annual real output growth has been 8.7 per cent in GDP terms and 7.8 per cent in GNP terms. The divergence between these growth measures, which mainly captures profit repatriations, was at its widest in 1999. This is a reflection of the high profitability levels in the Irish economy over recent years underpinned by strong competitiveness, boosted by the depreciating euro.

Indications are that the economy is set to grow as strongly this year as last, since many of the factors driving growth still remain favourable. Our projection for growth in real GDP in 2000 is revised upwards to 9.6 per cent and is 8.0 per cent for real GNP. Growth in 2001 is forecast to slow moderately to 6.9 and 6.1 per cent in real GDP and real GNP terms respectively, due to a combination of factors such as rising interest rates, a modest currency appreciation and a tight labour market contributing to significant wage growth.

The main short-term macroeconomic concern remains the substantial rise in consumer price inflation during 2000. External price developments still constitute a significant part of the explanation for the rise, but domestic factors are becoming increasingly important, particularly the role of expectations. The economy is rapidly approaching full employment, if it is not already there. Inflationary pressures can be expected to arise from the combination of strong aggregate demand, resulting from significant income growth; low interest rates; expansionary fiscal policy; a relatively weak currency, with full employment and infrastructural capacity constraints.

Partly because of the continued unanticipated weakness of the euro and the resilience of high oil prices, we have revised upwards our forecast for average consumer price inflation to 5.3 per cent in 2000 and 3.6 per cent in 2001. These inflation forecasts assume that wages remain anchored, if somewhat higher, to the agreed terms of the *Programme for Prosperity and Fairness* (PPF). Annual inflation rates, well in excess of those experienced since the mid-1980s, have increased expectations in the domestic economy of further rises in the price level. The concern, however, must be that expectations of high inflation, in excess of that justified by economic fundamentals, could lead to excessive price rises and wage demands, eroding the economy's competitiveness and pushing inflation higher than we are forecasting.

The ability to control inflation in the short term, both to stem the prospect of self-fulfilling expectations taking hold and to protect real incomes is limited for a small regional economy like Ireland within a large monetary union. Of the inflation control proposals to sustain the terms of the PPF, the use of deferred compensation mechanisms, such as pension bonds, may offer the flexibility required in satisfying pay aspirations without adding immediately to aggregate demand.

FORECAST NATIONAL ACCOUNTS 1999

A: Expenditure on Gross National Product

	1998	1999	Change in 1999				
		Preliminary	£m		%		
	£m	£m	Value	Volume	Value	Price	Volume
Private Consumer Expenditure	31,219	34,743	3,524	2,404	11.3	3.3	7.7
Public Net Current Expenditure	7,978	8,753	775	415	9.7	4.3	5.2
Gross Fixed Capital Formation	13,275	16,175	2900	1,724	21.8	7.8	13.0
Exports of Goods and Services (X)	52,585	60,457	7,872	6,521	15.0	2.3	12.4
Physical Changes in Stocks	886	-57	-943	-125			
Final Demand	**105,943**	**120,070**	**14,127**	**10,939**	**13.3**	**2.7**	**10.3**
less:							
Imports of Goods and Services (M)	45,678	50,978	5,300	3,974	11.6	2.7	8.7
GDP at Market Prices	**60,265**	**69,093**	**8,828**	**6,965**	**14.6**	**2.8**	**11.6**
less:							
Statistical Discrepancy	-318	41	359	1,064			
Adjusted GDP	**60,582**	**69,052**	**8,470**	**5,901**	**14.0**	**3.8**	**9.8**
less:							
Net Factor Payments (F)	7,389	9,984	2,595	1,696	35.1	9.9	22.9
GNP at Market Prices	**53,193**	**59,068**	**5,875**	**4,205**	**11.0**	**3.0**	**7.8**

B: Gross National Product by Origin

	1998	1999	Change in 1999	
		Preliminary		
	£m	£m	£m	%
Agriculture, Forestry, Fishing	2,326	2,071	-255	**-11.0**
Non-Agricultural: Wages, etc.	24,960	28,086	3,126	**12.5**
Other:	22,756	26,809	4,053	**17.8**
Adjustments: Stock Appreciation	49	-562		
Financial Services	-1,970	-2,296	-326	**16.5**
Statistical Discrepancy	-318	41	359	
Net Domestic Product	47,803	54,149	6,346	**13.3**
less:				
Net Factor Payments	7,389	9,984	2,595	**35.1**
National Income	40,414	44,166	3,752	**9.3**
Depreciation	6,107	7,114	1,007	**16.5**
GNP at Factor Cost	46,522	51,279	4,757	**10.2**
Taxes less Subsidies	6,671	7,789	1,118	**16.8**
GNP at Market Prices	53,193	59,068	5,875	**11.0**

C: Balance of Payments on Current Account

	1998	1999	Change in 1999
		Preliminary	
	£m	£m	£m
Exports (X) less Imports (M)	6,907	9,479	2,572
Net Factor Payments (F)	-7,389	-9,984	-2,595
Net Transfers	1,038	951	-87
Balance on Current Account	**556**	**446**	**-110**
as % of GNP	1.0	0.8	-0.2

FORECAST NATIONAL ACCOUNTS 2000

A: Expenditure on Gross National Product

	1999	2000	Change in 2000				
	Preliminary £m	Forecast £m	£m Value	£m Volume	Value	% Price	Volume
Private Consumer Expenditure	34,743	39,835	5,092	3,231	14.7	4.9	9.3
Public Net Current Expenditure	8,753	9,552	799	394	9.1	4.4	4.5
Gross Fixed Capital Formation	16,175	19,558	3,383	1,766	20.9	9.0	10.9
Exports of Goods and Services (X)	60,457	72,069	11,612	8,209	19.2	5.0	13.6
Physical Changes in Stocks	-57	180	237	140			
Final Demand	**120,070**	**141,194**	**21,123**	**13,740**	**17.6**	**5.5**	**11.4**
less:							
Imports of Goods and Services (M)	50,978	59,846	8,868	6,451	17.4	4.2	12.7
GDP at Market Prices	**69,093**	**81,348**	**12,255**	**7,289**	**17.7**	**6.5**	**10.5**
less:							
Statistical Discrepancy	41	664	223	680			
Adjusted GDP	**69,052**	**80,684**	**11,632**	**6,609**	**16.8**	**6.6**	**9.6**
less:							
Net Factor Payments (F)	9,984	12,452	2,468	1,880	24.7	5.0	18.8
GNP at Market Prices	**59,068**	**68,232**	**9,164**	**4,728**	**15.5**	**7.0**	**8.0**

B: Gross National Product by Origin

	1999	2000	Change in 2000	
	Preliminary £m	Forecast £m	£m	%
Agriculture, Forestry, Fishing	2,071	2,310	239	11.5
Non-Agricultural: Wages, etc.	28,086	31,640	3,554	12.7
Other:	26,809	31,708	4,899	18.3
Adjustments: Stock Appreciation	-562	-120		
Financial Services	-2,296	-2,506	-210	9.1
Statistical Discrepancy	41	664	623	
Net Domestic Product	**54,149**	**63,696**	**9,547**	**17.6**
less:				
Net Factor Payments	9,984	12,452	2,468	24.7
National Income	**44,165**	**51,243**	**7,078**	**16.0**
Depreciation	7,114	8,075	961	13.5
GNP at Factor Cost	**51,279**	**59,319**	**8,040**	**15.7**
Taxes less Subsidies	7,789	8,913	1,124	14.4
GNP at Market Prices	**59,068**	**68,232**	**9,164**	**15.5**

C: Balance of Payments on Current Account

	1999	2000	Change in 2000
	£m	Preliminary £m	£m
Exports (X) less Imports (M)	9,479	12,223	2,744
Net Factor Payments (F)	-9,984	-12,452	-2,468
Net Transfers	951	883	-68
Balance on Current Account	**446**	**654**	**208**
as % of GNP	0.8	1.0	0.3

FORECAST NATIONAL ACCOUNTS 2001

A: Expenditure on Gross National Product

	2000 Forecast £m	2001 Forecast £m	Change in 2001 £m Value	£m Volume	% Value	% Price	% Volume
Private Consumer Expenditure	39,835	44,242	4,407	2,828	11.1	3.7	7.1
Public Net Current Expenditure	9,552	10,345	793	401	8.3	3.9	4.2
Gross Fixed Capital Formation	19,558	23,301	3,743	1,728	19.1	9.5	8.8
Exports of Goods and Services (X)	72,069	82,265	10,196	7,243	14.1	3.7	10.0
Physical Changes in Stocks	180	140	-40	110			
Final Demand	**141,194**	**160,293**	**19,099**	**12,310**	**13.5**	**4.4**	**8.7**
less:							
Imports of Goods and Services (M)	59,846	68,335	8,489	6,341	14.2	3.2	10.6
GDP at Market Prices	**81,348**	**91,958**	**10,610**	**5,969**	**13.0**	**5.3**	**7.3**
less: Statistical Discrepancy	664	574	-90	433			
Adjusted GDP	**80,684**	**91,384**	**10,700**	**5,536**	**13.3**	**6.0**	**6.9**
less:							
Net Factor Payments (F)	12,452	14,361	1,908	1,393	15.3	3.7	11.2
GNP at Market Prices	**68,232**	**77,023**	**8,792**	**4,143**	**12.9**	**6.4**	**6.1**

B: Gross National Product by Origin

	2000 Forecast £m	2001 Forecast £m	Change in 2001 £m	Change in 2001 %
Agriculture, Forestry, Fishing	2,310	2,365	55	2.4
Non-Agricultural: Wages, etc.	31,640	35,401	3,761	11.9
Other:	31,708	36,763	5,055	15.9
Adjustments: Stock Appreciation	-120	-60		
Financial Services	-2,506	-2,684	-178	7.1
Statistical Discrepancy	664	574	-90	
Net Domestic Product	**63,696**	**72,359**	**8,663**	**13.6**
Net Factor Payments	12,452	14,361	1,908	15.3
National Income	**51,243**	**57,998**	**6,755**	**13.2**
Depreciation	8,075	9,064	988	12.2
GNP at Factor Cost	**59,319**	**67,061**	**7,743**	**13.1**
Taxes less Subsidies	8,913	9,962	1,049	11.8
GNP at Market Prices	**68,232**	**77,023**	**8,792**	**12.9**

C: Balance of Payments on Current Account

	2000 Forecast £m	2001 Forecast £m	Change in 2001 £m
Exports (X) less Imports (M)	12,223	13,930	1,707
Net Factor Payments (F)	-12,452	-14,361	-1,908
Net Transfers	883	785	-98
Balance on Current Account	654	354	**-300**
as % of GNP	1.0	0.5	-0.4

The International Economy

General

Internationally it appears that a rebalancing of economic growth may be occurring. Although there have been some indications of a slowdown in the US economy, growth is still stronger than had been anticipated. Growth in the euro-zone is strengthening and could pick up further if personal consumption accelerates as anticipated in some of the main euro economies. Inflation rates internationally have increased in response to rising oil prices. Movements in oil prices will be one of the main factors shaping price developments in the short term.

US Economy

Preliminary estimates show that the US economy grew by 1.3 per cent in the second quarter of this year. This is higher than expectations and reflects increases in inventory investment, government spending, and investment. In contrast, consumer spending growth slowed in the second quarter and net trade continued to make a negative contribution. On the positive side the price components remain low indicating that while the economy continues to grow at a fast pace, albeit slower than last year, inflationary pressures remain subdued. Recent figures show that US workers' productivity grew by an annual rate of 5.3 per cent in the second quarter, its fastest rate in seventeen years. The volume of GDP growth is expected to slow in the second half of the year to an annual average of 4 per cent, partly due to higher interest rates. Some further slowdown is expected over the course of 2001 resulting in an annual average of around 3.5 per cent.

The unemployment rate averaged 4 per cent over the first six months of 2000, an indication of the tight labour market, down from a rate of 5.25 per cent at the beginning of 1997. Further substantial declines are unlikely and an annual average unemployment rate of 4 per cent is forecast for this year and in 2001. The projected slowdown in economic activity may see some increase in unemployment levels, although this will not be significant.

The sharp rise in the cost of imported crude oil was the main contributor to an increase in the annual rate of consumer price inflation in recent months. Although there has been some stabilisation of oil prices, consumer price inflation is expected to be higher this year, at 3.2 per cent, than in recent years. As the impact of the sharp rise in oil prices falls out of the index a decline in the annual average to around 2.5 per cent is forecast for 2001.

The European Economy

Growth in the euro area has strengthened over the course of the year, partly due to euro weakness boosting exports. There are also indications that the increase in employment levels and rising consumer confidence is underpinning growth in personal consumption. Unemployment has fallen to 8.3 per cent in June, from 9.1 per cent in June 1999. The upturn in growth should result in further decreases and an annual average unemployment rate of 8.5 per cent is projected for this year, followed by a decline to 8 per cent in 2001. The overall performance of the euro area masks continuing differences in economic activity between euro member states. Growth in the larger economies is picking up after a period of sluggish growth while the peripheral economies of Ireland, Finland, Portugal and Spain continue to experience rapid expansion.

The ECB increased interest rates by 25 basis points to 4.5 per cent at the end of August, after a similar rise in June. These increases were motivated by concerns over inflationary pressures emerging within the euro area reflecting higher output growth prospects. Official interest rates are expected to move higher before the end of 2000 with some further increases likely in 2001. However, at a time when monetary policy is tightening, plans to loosen fiscal policy have been announced in a number of economies, notably in Germany and France. Inflation across the euro area has increased in recent months, in part reflecting higher international oil prices. The ECB target of keeping inflation at or below 2 per cent was breached over the summer months with inflation currently exceeding the target in eight out of eleven countries in the monetary union. Divergence between member states' inflation rates as measured by the EU's harmonized inflation figures for July is quite significant ranging from Ireland at 5.9 per cent to Germany, France and Austria at 2.0 per cent.

Economic growth in the German economy has continued to improve throughout this year, due mainly to the external sector. Growth has also been underpinned by an upturn in investment and industrial output. According to the Federal Statistics Office, real GDP grew by an annual rate of 3.3 per cent in the first half of 2000. While there are some indications that the upturn in growth is slowing, growth in domestic demand will receive a further boost from the recently announced tax package. Income tax cuts, previously scheduled for 2002, have been brought forward to January 2001 and significant reductions in corporation taxes are also scheduled. It now seems likely that real GDP growth will be around 2.8 per cent in 2000 and 2001. The positive performance of the German economy in recent months is having an impact on the labour market. The unemployment rate has fallen to 8.4 per cent and is likely to average around 8.3 per cent this year before declining further to 8 per cent in 2001. At the same time there is little evidence of inflationary pressure with preliminary figures showing an annual rate of 1.8 per cent in August. As activity accelerates and unemployment continues to decline some upturn in the inflation rate is anticipated to an annual average rate of 1.8 per cent in 2000 and 2.2 per cent in 2001.

The French economy continues to grow with no end to the current upswing in sight. The current growth appears well balanced with both domestic demand and the external sector expanding strongly. Real GDP growth is expected to average around 3.5 per cent this year. Growth in personal consumption remains weak. However, this is expected to increase as the labour market continues to improve. Job creation remains strong and so the unemployment rate is expected to decline to an annual average of 10 per cent in 2000 and to 9.3 per cent in 2001. The strength of activity is partly responsible for an upturn in the inflation rate. Given the buoyant external situation, inflation is expected to average 1.75 per cent this year, before reaching an annual average of 2.25 per cent in 2001. The French government announced at the end of August a major tax reform, with proposals to significantly reduce personal tax rates, lower corporation taxes, modifications in categories of value added and the freezing of a proposed fuel tax escalator.

The pace of economic activity in Italy has accelerated in recent months, mainly due to strong export demand, resulting from the weak euro, and an increase in consumer spending growth. GDP growth is expected to average 2.75 per cent this year. The upturn in the world economy and world trade should result in GDP growth increasing to over 3 per cent in 2001. The upturn in growth should result in a decline in the Italian unemployment rate. An annual average rate of 11 per cent is expected this year with a further decline to an average of 10.75 per cent in 2001. Although the weakness of the euro has done much to stimulate the external sector it has had a negative impact on inflation which has risen to an annual rate of 2.5 per cent. Consumer price inflation of 2.5 per cent is forecast for this year before moderating to an annual rate of 2.25 per cent in 2001.

A referendum on EMU membership is to be held in Denmark on September 28th. At present there is no clear majority for either the proponents or opponents but the result is seen as being important for the euro currency, so much focus is being placed on the Danish economy. Economic activity slowed in Denmark during 1999 as a result of a policy-induced dampening of personal consumption. As this coincided with an upturn in the external sector the Danish economy achieved a soft landing. The positive external environment coupled with some increase in domestic demand is expected to result in GDP growth of over 2 per cent this year. Greece has been confirmed as the latest economy to satisfy the EMU convergence criteria and will formally join EMU in January 2001 at its current central rate against the euro of 340.750 drachma.

The Dutch economy continues to face many similar issues with the Irish economy at present (see Box 1, *Quarterly Economic Commentary*, June 2000). Economic growth is expected to increase this year to around 4.3 per cent with growth in private consumption remaining one of the main drivers of growth. The acceleration in growth should result in further declines in unemployment to an annual rate below 4 per cent, further tightening the labour market. All European economies are expected to grow at a stronger pace this year compared with 1999. Once again growth will be faster in the peripheral member states.

The UK Economy

In the second quarter of this year, the official preliminary estimate of real GDP growth shows a rise of 0.9 per cent compared with the previous quarter, an annual rate of 3.1 per cent. Real GDP growth is expected to average 3 per cent this year and 3.5 per cent next year. Retail sales figures show that the volume of retail sales grew by 4 per cent in the year to July, a slowdown from the 4.5 per cent recorded in June. Manufacturing output has continued to grow, albeit at a moderate pace. Recent figures show an annual increase to June of 1.8 per cent. Much of this increase is due to strong output growth in electrical and optical equipment and chemical industries.

Sterling has remained relatively strong against the euro and although there may be some minor fluctuations this is unlikely to change significantly. Despite the high exchange rate, export volumes have benefited from the strength of demand in external markets. There has been an upturn in inflation during 2000. The annual rate of change in the consumer price index remained constant in July at 3.3 per cent compared with the previous month, having started the year at 2 per cent. The annual rate for underlying inflation, (excluding mortgage interest payments), which is used by the Monetary Policy Committee (MPC) was also unchanged at 2.2 per cent in the same month. Underlying inflation is still well within the 2.5 per cent inflation target of the MPC.

In contrast to other leading economies official UK interest rates have remained stable since increasing to 6 per cent in February. With inflation remaining below target, and average earnings and retail sales growth slowing along with a slowdown in house price growth, it is unlikely that official interest rates will be increased substantially over the rest of the year. However, a further small increase may be implemented if inflationary pressures emerge.

Employment has continued to grow. Using the internationally comparable ILO measure, the unemployment rate declined again in the three months April to June 2000 to a rate of 5.5 per cent, compared with 5.8 per cent in the first quarter and down from 6 per cent a year earlier. Claimant count figures suggest the labour market is even tighter. Official statistics show productivity increasing in the UK economy. Despite labour market tightness, average earnings growth grew by 4.1 per cent in the year to June, down from 4.6 per cent in the year to May. Manufacturing productivity rose by an annual rate of 4.2 per cent in the second quarter and economy-wide productivity rose by 2.2 per cent in the first quarter.

The Rest of the World

Recovery continues in the Asian economies affected by the crisis of 1997, with Korea showing the strongest performance. Recovery has been driven mainly by the external sector that benefited from increased competitiveness following the devaluation of currencies during the crisis. Personal consumption levels and growth in investment have also increased, contributing to an increase in domestic demand.

Although the Japanese economy has not yet fully recovered there are signs of a moderate improvement in economic activity. Official figures for the first quarter of this year show that GDP grew by an annual rate of 2.4 per cent due to growth in net trade and private investment. The volume of exports and industrial production has been increasing at a moderate pace. In contrast to the improved performance by the manufacturing sector personal consumption remains weak reflecting little improvement in the labour market. Retail sales declined by 2.4 per cent in the year to May and the unemployment rate continues at a high level rising to 4.7 per cent in June. The positive impact from various public expenditure programmes is expected to decrease although net exports are expected to continue to increase gradually due to expansion in overseas economies. The recent decision by the Bank of Japan to remove the zero interest policy that had been in place for a number of years has attracted considerable criticism. The worry is that economic growth may still be quite fragile in its recovery phase and monetary policy should remain loose, particularly given the recent strength of the Yen. It is anticipated that real GDP growth of 1.5 per cent will be achieved this year and 1.8 per cent in 2001.

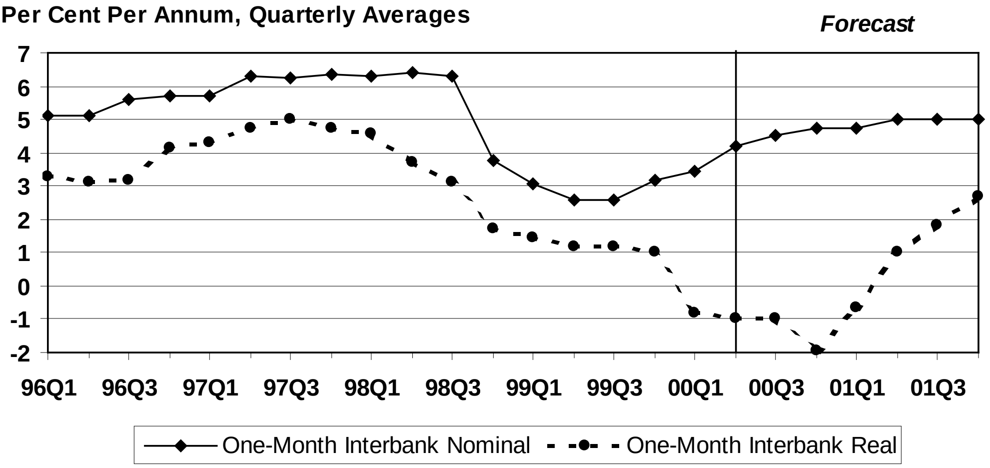
The Context for Ireland

The rise in economic activity in Europe coupled with the strength of the US economy provides a favourable international environment for the Irish economy. World output is expected to increase by over 4 per cent this year following two years of slow growth. The upturn in activity should result in a strong acceleration in world trade growth this year.

The continuation of US growth throughout this year and the more firmly rooted recovery in Europe should mean that international investment flows will remain high. A decline in competitiveness from higher unit labour costs may cause Ireland to loose some of its share of this investment.

Concerns about inflationary pressures have led to rising international short-term interest rates. In its August Monthly Bulletin the ECB stated that "risks to price stability in the medium term continue to be on the upside". As a relatively new institution the ECB is likely to react strongly to sustained upward price pressures and so a further increase in euro interest rates is expected this year in addition to the two 25 basis point rises since June.

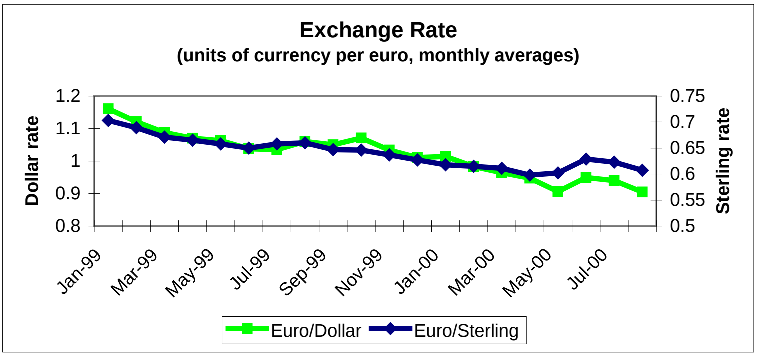
Figure 1: Interest Rates
Per Cent Per Annum, Quarterly Averages



The US Federal Reserve last raised interest rates in May to 6.5 per cent. Although interest rates were left unchanged since, concern remains regarding inflationary pressures in the future. On this basis a further increase in US interest rates are likely, although indications that the pace of growth in the US economy is slowing suggests official rates are close to their peak. As already noted UK official rates appear to be close to their peak. For forecasting purposes, it is assumed that euro interest rates are raised by a further quarter of a percentage point before the early part of next year. A similar rise in both US and UK interest rates is anticipated over the same time frame.

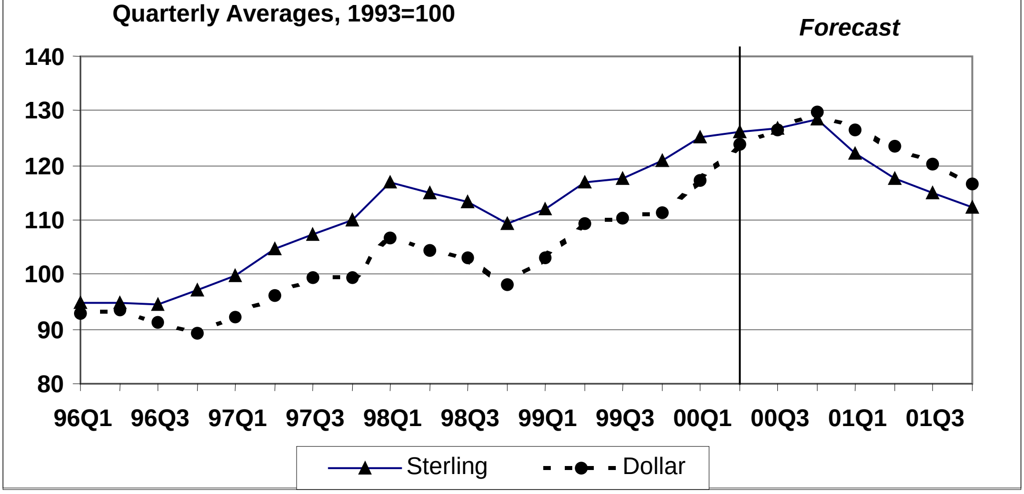
Box A: The Value of the Euro

Immediately following its launch on January 1, 1999 the euro appreciated on the international exchanges to reach a high of US$1.17. Since then the overall trend has been for the euro to depreciate. The new currency fell below parity with the dollar in December 1999. After a brief rally the euro moved below parity again in January and has remained below ever since. The currency reached a low of 0.885 cents in May of this year. After strengthening in May and June and remaining broadly stable in early July the currency has again declined, to a new low in September.



Much of the decline has been blamed on the differing performances of the US and euro area economies, and on the high level of capital flows into the US. However, despite a strengthening of economic activity in Europe and the expectation of further improvement the euro has remained weak. Some of the weakness may well be the result of a desire for a weak euro to aid the competitiveness of the euro area and thereby assist economic recovery. The extent of the decline in the euro coupled with the length of time that this has occurred has raised ECB concerns about inflationary pressures (ECB *Monthly Bulletin*

Figure 2: Exchange Rates IR£ Price of Unit of Foreign Currency, Quarterly Averages, 1993=100



August 2000). Simulations by the National Institute in the UK suggest that "a sustained 5 per cent depreciation of the euro exchange rate driven by a perception of looser monetary policy should increase inflation by I per cent a year for five years".[1]

The continuing strength of the US economy has helped maintain the strength of the dollar on international exchanges, despite interest rate increases in other economies. Throughout the course of 2001 a moderately paced appreciation of the euro against the dollar should occur as a narrowing of the growth differential between Europe and the US continues. Higher euro interest rates should result in some appreciation against sterling. For the purposes of this *Commentary* we have assumed that the euro appreciates to around parity against the dollar by the end of 2001 and to 0.70 against sterling.

TABLE 1: Short-term International Outlook

	GNP		Consumer Prices		Hourly Earnings		Unemployment Rate		Current Account Balance	
	Percentage Change						%		% of GNP	
Country	**2000**	**2001**	**2000**	**2001**	**2000**	**2001**	**2000**	**2001**	**2000**	**2001**
UK	3.0	3.5	2.0	2.3	5.0	5.0	5.6	5.6	-1.5	-1.2
Germany	2.8	2.8	1.8	2.2	3.0	3.0	8.3	8.0	-1.0	-1.0
France	3.5	3.3	1.8	2.3	3.0	3.0	10.0	9.3	2.3	2.3
Italy	2.8	3.0	2.5	2.3	2.5	2.5	10.8	10.3	1.0	1.0
Total EU	3.4	3.4	2.0	2.0	3.0	3.5	8.5	8.0	0.5	0.5
USA	4.0	3.5	3.2	2.5	3.8	3.8	4.0	4.0	-4.0	-4.0
Japan	1.5	1.8	-0.3	0.0	2.0	2.0	4.5	4.5	2.3	2.3
Total (OECD)	3.8	3.5	2.0	2.0	3.5.	3.5	6.0	6.0	-1.0	-0.5
Ireland	8.0	6.1	5.3	3.6	7.6	8.3	4.4	4.0	1.0	0.5

The Domestic Economy

General

The preliminary figures in *National Income and Expenditure 1999* (NIE99) confirm another year of strong growth for the Irish economy. Real GDP increased by 9.8 per cent and real GNP grew by 7.8 per cent, compared with our final estimates in our June *Commentary* of 9.5 per cent GDP growth and a 7.7 per cent increase in real GNP. Although our estimates are broadly in line with the preliminary figures from the CSO, there were some differences in the composition of the growth. The volume of personal consumption was lower than we had forecast. Our estimate for growth in public net current expenditure, which had been revised downward on the basis of the quarterly national accounts, turned out to be much lower than the final out-turn.

[1] National Institute *Economic Review,* No. 173, July 2000.

Revisions to estimates for 1998 and 1997 indicate that the annual average real GNP growth rate for the past three years was 8.3 per cent. Based on the preliminary figures some price deflators were lower than we had anticipated, particularly the personal consumption deflator of 3.3 per cent and the GNP deflator of 3 per cent.

The figures contained in NIE99 need to be taken into account in updating our forecast for 2000. This coupled with the data available to-date for this year indicates that growth in real GNP will again be large at 8 per cent. The growth in real GDP has been consistently higher than that for GNP in recent years reflecting strong growth in net factor income flows out of the economy. The divergence in these growth rates was highest in 1999 reflecting high repatriation levels given the strong profitability in the domestic economy.

Exports

Preliminary figures in NIE99 show that the value of exports reached £60,457 million in 1999, exceeding the level of GNP for the first time in the history of the State, having grown by 15 per cent in value and 12.4 per cent in volume terms. The latest *Balance of Payments Estimates*, based on new methodology, for the first quarter of 2000 marginally revised upward the level of merchandise exports in 1999 by £109 million, bringing the annual growth in the value of merchandise exports to 14.4 per cent.

Indications from official trade statistics, coupled with the *Balance of Payments Estimates*, are that the growth of merchandise exports has increased this year. The volume of exports increased by 17.2 per cent in the first five months of the year. While the European economy is expected to expand more rapidly this year than last, as outlined in the International Section, domestic capacity constraints may limit somewhat the opportunity to avail of this growth. Therefore, an annual increase of around 14 per cent is forecast for both the volume of both visible and merchandise exports in 2000. The official figures also show an upward trend in the export price index. On this basis we have forecast that the average price of merchandise exports will increase by 4 per cent this year. This is a substantial increase compared to a very moderate 0.4 per cent in 1999.

Taking into account the revised estimates for services exports in 1999, tourism exports are forecast to increase by about 3 per cent in volume this year, and that other service exports will rise by over 13 per cent in volume. As shown in Table 2, total exports of goods and services are forecast to increase in 2000 by 13.6 per cent in volume and just over 19 per cent in value.

On the assumption that supply constraints will become more binding next year, it seems likely that the annual growth in visible and merchandise exports will decline again next year, to around 10 per cent in volume terms. Once again the fastest growth is likely to be in the high-technology sectors where announced investment plans are expected to result in some increase in capacity. Exports of both tourism and other services are also expected to slow. Thus, exports of goods and services are forecast to increase by about 10 per cent in volume and nearly 14 per cent in value in 2001.

TABLE 2: Exports of Goods and Services

Preliminary

	1998 £m	% Change in 1999 Volume	% Change in 1999 Value	1999 £m
Agricultural	2,906	8.5	7.7	3,135
Manufactured	37,889	16.0	16.5	44,129
Other Industrial	3,502	9.2	9.6	3,839
Other	849	8.7	8.7	923
Total Visible	**45,146**	**14.8**	**15.2**	**52,026**
Adjustments	-1,795			-2,447
Merchandise	**43,351**	**11.9**	**14.4**	**49,579**
Tourism	1,620	2.0	4.3	1,898
Other Services	7,414	17.6	21.1	8,979
Exports of Goods And Services	**52,585**	**12.4**	**15.0**	**60,457**

Forecasts

	1999 £m	% Change in 2000 Volume	% Change in 2000 Value	2000 £m	% Change in 2001 Volume	% Change in 2001 Value	2001 £m
Agricultural	3,135	6.2	8.3	3,396	3.3	5.1	3,568
Manufactured	44,129	15.2	20.0	52,972	11.4	15.2	61,017
Other Industrial	3,839	6.3	10.0	4,222	2.4	5.2	4,440
Other	923	7.5	8.6	1,002	2.3	3.3	1,038
Total Visible	**52,026**	**13.9**	**16.4**	**61,592**	**10.2**	**13.7**	**70,060**
Adjustments	-2,447			-2,153			-2,229
Merchandise	**49,579**	**14.1**	**19.9**	**59,439**	**10.0**	**14.1**	**67,832**
Tourism	1,898	3.0	7.4	2,039	2.0	5.1	2,142
Other Services	8,979	13.2	18.0	10,591	11.8	16.0	12,291
Exports of Goods And Services	**60,457**	**13.6**	**19.2**	**72,069**	**10.0**	**14.1**	**82,265**

Stocks

The preliminary national accounts for 1999 reveal a large fall in stocks. The decline in the value of stocks is estimated at £943 million in 1999. This was not as sharp as we had anticipated in the last *Commentary* reflecting a revision to 1998 figures as well as an increase in the volume terms of other non-agricultural stocks. We anticipate some reversal in this fall in stock-building this year and next though given the strength of demand and high capacity utilisation levels this is unlikely to be very significant. As outlined in Table 3 we expect that this change will come from other non-agricultural stocks. The change in stocks in value terms is forecast to be £180 million and £140 million in 2000 and 2001 respectively.

TABLE 3: Stock Changes

	1998 £m	Change in Value £m	1999 £m	Change in Value £m	2000 £m	Change in Value £m	2001 £m
Farm Stocks	43	-173	-130	110	-20	10	-10
Irish intervention Stocks	-13	-153	-186	186	0	0	0
Other Non-Agricultural Stocks	856	-617	239	-39	200	-50	150
Total	**886**	**-943**	**-57**	**237**	**180**	**-40**	**140**

Investment

The NIE99 shows that the volume of growth in investment in building and construction was 10.4 per cent, very close to our final estimate of 10.8 per cent, although the price deflator at 12 per cent was lower than our estimate of 14.3 per cent. The official estimate of the increase in the volume of investment in machinery and equipment was 16.1 per cent compared to our estimate of 17 per cent. Thus, for 1999 the national accounts show that total gross capital fixed investment increased by 12.6 per cent in volume and 21.8 per cent in value, somewhat lower than our final figures of 13.1 and 24.1 per cent.

In light of the official estimates for 1999 we have revised downward our forecasts for the volume of investment in 2000. Investment in building and construction is continuing to grow, although at a slower pace than last year. However, upward revisions to the price deflator means that the value of investment in building and construction is forecast to grow by nearly 24.5 per cent this year, a marginal increase in value terms from the out-turn for 1999.

With few indicators available the outlook for investment in machinery and equipment is more difficult to judge. Imports of capital goods for the first quarter show growth of over 40 per cent in value terms. Official figures for registration of new goods vehicles indicate that growth is unlikely to match the rates of 1998 and 1999 and so a more modest rise is anticipated in 2000. On this basis total gross fixed capital formation is forecast to increase by nearly 11 per cent in volume and 21.8 per cent in value.

With the economy expected to grow at a slower pace in 2001 and interest rates showing some increase it seems likely that growth in fixed investment will show some slowdown in 2001. It seems unlikely that there will be a further substantial increase in the number of new houses completed compared to the figure of over 46,500 in 1999 and so a decline in the rate of growth in housing investment is forecast. Partly reflecting the infrastructural needs of the economy volume growth in other building is forecast at around 10.5 per cent. The volume of total investment in building and construction is projected to increase by over 8 per cent again in 2001. A volume increase of 10 per cent in investment in machinery and equipment is projected. Total gross fixed capital investment is therefore forecast to increase by 8.8 per cent in volume and 19.2 per cent in value in 2001.

TABLE 4: Gross Fixed Capital Formation

Preliminary

	1998 £m	% Change in 1999 Volume	% Change in 1999 Value	1999 £m
Housing	4,185	9.6	24.5	5,209
Other Building	3,934	11.3	22.9	4,836
Building and Construction	8,119	10.4	23.7	10,045
Machinery & Equipment	5,156	16.1	18.9	6,130
Total	13,275	13.0	21.8	16,175

Forecasts

	1999 £m	% Change in 2000 Volume	% Change in 2000 Value	2000 £m	% Change in 2001 Volume	% Change in 2001 Value	2001 £m
Housing	5,209	8.1	25.9	5,560	6.0	23.0	9,066
Other Building	4,836	9.8	19.7	5,788	10.6	22.8	7,106
Building and Construction	10,045	8.9	22.9	12,348	8.2	22.9	15,172
Machinery & Equipment	6,130	14.2	17.6	7,210	10.0	12.9	8,130
Total	16,175	10.9	20.9	19,558	8.8	19.1	23,301

Consumption

According to the preliminary national accounts the value of personal consumption in 1999 was £34,743 million. The volume of personal consumption is estimated to have risen by 7.7 per cent, a growth rate that was unexpectedly low compared to our estimates. The consumption deflator, at 3.3 per cent, was also lower than anticipated. The value increase in personal consumption was therefore 11.3 per cent for the year, compared with our previous estimate of 12.8 per cent.

Figures for 2000 indicate that the volume of retail sales growth has accelerated during the first half of the year. The retail sales deflator began to increase in the fourth quarter of 1999 and by the second quarter of this year had reached 4 per cent, compared to an annual average of 1.8 per cent in 1999. For 2000 as a whole the retail sales index is forecast to increase by 16.1 per cent in value and by 11.2 per cent in volume, see Table 5. Thus total personal consumption is forecast to rise by 9.3 per cent in volume and 14.7 per cent in value.

A slower rate of increase in the value of personal consumption is forecast for 2001, partly reflecting our expectation of a lower rate of employment growth. Based on a more moderate rate of increase in the consumer price index than in 2000 the volume increase in personal consumption is projected to slow to 7.1 per cent.

Government consumption in 1999 increased by 5.2 per cent in volume and by 9.7 per cent in value, according to the NIE99, a faster rate of growth than had been suggested by the quarterly national accounts for the first nine months of the year. A reduction in the volume rate of growth to 4.5 per cent in 2000 and 4.2 per cent in 2001 is forecast. However, the price deflator for government consumption is forecast to remain high, so that the value rise in government consumption is forecast at 9.1 per cent in 2000 and 8.3 per cent in 2001.

TABLE 5: Consumption Indicators

	Annual Percentage Change						
	1995	1996	1997	1998	1999	2000 Forecast	2001 Forecast
Consumption Value							
NIE 1997, Personal Consumption	6.6	9.3	10.0	11.4	11.3	14.7	11.1
Retail Sales Index, Value	4.8	8.3	9.0	9.7	11.5	16.1	12.1
Divergence	1.8	1.0	1.0	1.7	-0.2	-1.4	-1.0
Consumption Volume							
NIE 1997, Personal Consumption	3.7	6.5	7.3	7.4	7.7	9.3	7.1
Retail Sales Index, Volume	2.8	6.2	7.9	8.1	9.5	11.2	8.8
Divergence	0.9	0.3	-0.6	-0.7	-1.6	-1.9	-1.7
Consumer Prices							
NIE 1997, Personal Consumption Deflator	2.8	2.6	2.5	3.7	3.3	4.9	3.7
Retail Sales Index Deflator	2.0	1.7	1.2	1.9	1.6	4.4	3.0
Consumer Price Index	2.5	1.6	1.5	2.4	1.6	5.3	3.6

Final Demand

On the basis of NIE99, final demand is estimated to have increased by 10.3 per cent in volume terms and 13.3 per cent in value in 1999, compared to 10.5 and 13.7 per cent respectively as we forecast in our previous *Commentary*. This was substantially lower than the exceptionally strong growth in 1998. The composition of final demand includes domestic demand plus exports. Domestic demand (excluding stocks) grew by 8.7 per cent in volume terms in 1999, while exports of goods and services rose by 12.4 per cent. The import intensity of final demand in volume terms was significantly lower in 1999 than in preceding years as we noted in previous *Commentaries*. Both domestic demand and exports are expected to grow faster than last year such that the volume growth of 11.4 per cent in final demand is forecast for 2000 and 8.7 per cent in 2001. The import intensity of final demand is expected to increase in both years.

Imports

The preliminary national accounts show that the volume of imports of goods and services rose by 8.7 per cent and by 11.6 per cent in value in 1999. Initial trade statistics show that the volume of visible imports rose by over 14 per cent in the first five months of the year. Imports of most commodities rose, with both the chemicals and electronic sectors showing strong increases, where exports were also very buoyant. Growth in import volumes is expected to be around 12.7 per cent this year. Allowing for some rise in the import deflator this implies a value increase of 17.4 per cent.

The increase in the value of tourist spending abroad was lower than expected in 1999, at 9.8 per cent. Passenger figures suggest that both the volume and value of tourism spending abroad will be higher this year. Other service imports, such as royalties and commissions, are expected to rise in value by 15.5 per cent in 2000, see Table 6. The forecast growth in imports in 2000 is higher than in 1999, reflecting the continued strength of domestic demand. Import prices are expected to grow by 4.2 per cent this year.

TABLE 6: Imports of Goods and Services

Preliminary

	1998 £m	% Change in 1999 Volume	% Change in 1999 Value	1999 £m
Capital Goods	4,076	20.4	24.0	5,056
Consumer Goods	6,520	9.5	13.3	7,386
Intermediate Goods:				
Agriculture	497	11.3	12.7	561
Other	18,619	2.6	5.4	19,629
Other Goods	1,566	7.4	9.9	1,721
Total Visible	**31,279**	**6.7**	**9.8**	**34,352**
Adjustments	-1924			-2,276
Merchandise Imports	**29,355**	**4.8**	**7.9**	**31,676**
Tourism	1,666	7.7	9.8	1,629
Other Services	14,657	17.2	19.2	17,473
Imports of Goods and Services	**45,678**	**8.7**	**11.6**	**50,978**

Forecasts

	1999 £m	% Change in 2000 Volume	% Change in 2000 Value	2000 £m	% Change in 2001 Volume	% Change in 2001 Value	2001 £m
Capital Goods	5,056	16.8	20.9	6,112	13.8	17.6	7,185
Consumer Goods	7,386	12.5	17.3	8,666	10.3	13.9	9,874
Intermediate Goods:							
Agriculture	561	9.5	10.6	620	6.0	7.3	665
Other	19,629	12.8	18.8	23,315	7.0	11.3	25,944
Other Goods	1,721	11.0	16.6	2,005	6.0	8.4	2,174
Total Visible	**34,352**	**13.2**	**18.5**	**40,718**	**8.7**	**12.6**	**45,843**
Adjustments	-2,276			-3,211			-3,692
Merchandise Imports	**31,676**	**12.6**	**18.4**	**37,508**	**8.1**	**12.4**	**42,151**
Tourism	1,629	15.0	17.6	2,151	12.5	16.4	2,505
Other Services	17,473	12.5	15.5	20,187	15.0	17.3	23,680
Imports of Goods And Services	**50,978**	**12.7**	**17.4**	**59,846**	**10.6**	**14.2**	**68,335**

Growth in final demand is likely to ensure that imports of both capital goods and consumer goods will continue to increase quite strongly.

Therefore, the slowdown projected for the volume of visible imports in 2001 is due to imports of intermediate goods easing in line with projections for manufacturing exports and the resource constraints that are anticipated to become more binding. With both tourism and other service imports are expected to show strong growth the overall volume of imports of goods and services is projected to rise by 14.2 per cent in value and by 10.6 per cent in volume.

Balance of Payments

Significant changes to the Balance of Payments methodology, introduced for the 1999 annual figures, have now been incorporated into the national accounts. A more comprehensive breakdown of services as well as income and the split between IFSC and non-IFSC companies is now given. A geographical breakdown of the results is also provided. While in time these revisions will provide more detailed information for forecasting purposes, the changes result in a discontinuity in the long-term balance of payment series.

TABLE 7: Balance of Payments

	1998 £m	Change %	1999 £m	Change %	2000 £m	Change %	2001 £m
Visible Trade Balance	13,868	27.5	17,675	18.1	20,874	16.0	24,217
Adjustments	128		229		1,057		1,464
Merchandise Trade Balance	**13,996**	**27.9**	**17,903**	**22.5**	**21,931**	**17.1**	**25,681**
Service Trade Balance	-7,890	18.8	-8,425	15.2	-9,708	21.0	-11,751
Trade Balance in Goods and Services	**6,907**	**37.2**	**9,479**	**29.0**	**12,223**	**14.0**	**13,930**
Total Debit Flows	-21,431	33.0	-28,601	21.3	-34,564	17.2	-40,520
Total Credit Flows	14,042	31.9	18,517	19.4	22,112	18.3	26,159
Net Factor Flows	**-7,389**	**35.1**	**-9,984**	**24.7**	**-12,452**	**15.3**	**-14,351**
Net Current Transfers	**1,038**	**-8.4**	**951**	**-7.1**	**883**	**-11.1**	**785**
Balance on Current Account	**556**		**446**		**654**		**354**
Capital Transfers	661	-33.3	441	28.1	565	-9.7	510
Effective Current Balance	**1,217**		**887**		**1,219**		**864**

Revisions to the current account surplus contained in the Balance of Payments Estimates for the first quarter of 2000 have increased the balance to £446 million, rather than the £223 million shown in the estimates for 1999. This is mainly due to a recalculation regarding IFSC non-life insurance company flows. The impact of the changes has been to reduce the original current account surplus for 1998 by about £300 million and to increase the 1999 surplus by about the same amount. When these changes are combined with changes to other flows, the 1998 current account surplus is now put at £556 million.

On the basis of our export and import forecasts, the visible trade balance this year will increase by about 18 per cent, with a further 16 per cent rise in 2001. With both the merchandise trade balance and the deficit on service trade expected to grow, the surplus on trade in goods and services should increase by 29 per cent this year and by 14 per cent in 2001, as shown in Table 7.

In keeping with our expectation that the rate of increase in exports from multinational companies will slow over the next two years the rise in distributed profits and reinvested earnings is forecast to decline. National debt interest paid abroad is expected to continue its decline and the growth in other debit flows are forecast to slow. A similar pattern of slowdown is expected for credit flows, so that the rise in net factor flows are forecast to reduce from over 35 per cent in 1999 to nearly 25 per cent in 2000 and 15.3 per cent in 2001. Net current transfers are expected to continue their decline. The strength of export growth is expected to increase the balance on the current account of the balance of payments this year to £654 million. However, our estimates for 2001 suggest that this increase will be reversed in 2001.

Gross National Product

Despite major revisions to the Balance of Payments accounts for 1998 and 1999, real GNP growth rates have not been significantly affected. Real GDP at 9.8 per cent and real GNP growth at 7.8 per cent were quite close to our final estimates. The divergence between GDP and GNP growth was at its widest in 1999 due to very high growth in net factor payments of 35.1 per cent in value terms and 22.9 per cent in volume. As predicted, exports were greater in value than GNP in 1999.

The terms of trade dis-improved in 1999 as predicted in our last *Commentary*, though the magnitude of out-turn was not as significant. Export price deflators were revised up to 2.3 per cent, and import price deflators were higher at 2.6 per cent. A small reduction in net current transfers combined with the terms of trade impact, led to a rise in real Gross National Disposable Income (GNDI) in 1999 of 7.2 per cent, somewhat lower than the growth in real GNP. GNDI is considered a more comprehensive measure in the overall growth in living standards.

It is envisaged that the growth in real GNP in 2000 will be 8 per cent, followed by 6.1 per cent next year. The terms of trade are forecast to improve moderately over both 2000 and 2001, while current transfers are expected to continue falling at faster rates. The impact of these factors is that living standards, as reflected by GNDI, are projected to rise in real terms by 8.6 per cent in 2000 and 6.4 per cent in 2001, revised up from our last *Commentary*.

Agriculture

The volume of agricultural output fell in 1999 although as indicated in the previous *Commentary*, this masked some quite contrasting sectoral performances. Gross agricultural product fell in volume terms in 1999 and when one factors in forestry and fishing output, the volume of GDP in the broad agricultural sector declined by around 12 per cent.

The sector is expected to recover somewhat in both 2000 and 2001, helped by more favourable weather conditions, which should reduce input growth significantly. Nevertheless, the outlook for the sector remains bleak and particularly so when compared with output and employment growth in other areas of the economy. We are forecasting a small rise of 1.3 and 1.6 per cent in volume of GDP in the broad agricultural sector for 2000 and 2001 respectively despite falling employment in the sector.

Industry

The volume of industrial production for the manufacturing industry is estimated to have grown by 9.9 per cent in the first ten months of 1999. Manufacturing export growth last year would indicate that output was very strong particularly in the latter half of the year. Output in building and construction continued to rise strongly as well, at over 10 per cent in volume terms. On the income side, the NIE99 out-turn for industry also confirmed strong growth. We estimate that volume growth in gross output, that is, accounting for stock adjustment and depreciation, in the industrial sector was nearly 11 per cent in 1999.

Expectations for production in the months ahead, provided in the IBEC-ESRI Monthly Industrial Survey, would indicate that industrial output continued its strong growth from the latter half of last year into 2000. These trends are also apparent in the NCB Purchasing Managers Index though there is some slowing of growth in recent months. We estimate that the growth in the building and construction sector is slightly ahead of last year in volume terms at over 11 per cent, with the rate of growth of manufacturing being broadly in line with last year. While growth in net output in industry is expected to be ahead of last year, when account is taken of negative stock adjustment and depreciation, the growth in gross output is closer to 10 per cent in 2000. This is still an upward revision from our June *Commentar*y. Output prices in the sector are expected to grow in excess of 6 per cent in 2000, reflecting higher import prices, fuel cost and wages bills.

Tightness in the labour market is still expected to constrain growth both in manufacturing and building next year, though not dramatically Our forecast is for volume growth in gross output of the broad industrial sector to be 8.1 per cent in 2001. The increase in output prices is expected to moderate from 2000, with a 5.6 per cent rate of growth forecast for next year.

Services

In contrast to our expectation of even higher output growth in the services sector, it is estimated on the basis of the income side of NIE99 to have risen in volume terms by a modest 6 per cent in 1999. This is surprising given an average employment growth for the year of 7.1 per cent which suggests negative productivity growth in the sector. It is worth stating however, that it is difficult to measure output per worker in the services sector in contrast say with those in industry, and hence one should not place too much emphasis on the productivity figures. Nevertheless, we do expect positive productivity growth in the services sector this year and next.

The high labour component and low productivity growth of the services sector means that its output growth is quite dependent on employment growth. The tightening labour market will mean that the services sector's output growth cannot be sustained indefinitely unless there is significant additional sources of labour forthcoming through increased participation or migration. On the basis of forecast employment growth in the sector of 5.1 and 3.7 per cent in 2000 and 2001, we expect productivity to move back toward its trend growth in the sector. Our forecast is that the rate of growth in real GDP in services will move to 8.1 this year before falling to 5.4 per cent in 2001. We continue to expect modest volume increases over the period in the public sector with the main growth in the sector coming from internationally traded services and professional and personal services in general.

Employment

Recent monthly Live Register Statements for July and August indicate that employment creation within the economy remains buoyant. The single largest annual decrease on record was a decline of 40,700 persons on the register over the course of the year to July 2000. The seasonally adjusted number of persons on the register fell to 151,200 in August, which is the lowest figure since May 1982. These encouraging figures follow on from a very positive labour market outlook in the latest Quarterly National Household Survey (QNHS), as documented in the June *Commentary*.

The growth in employment has resulted in a sustained decline in the standardised unemployment rate, which was down to just 4.4 per cent in August, as compared with 4.9 per cent in January. The success of the economy in job creation terms becomes evident when one tracks the changes in this rate over the last few years. The last increase in the standardised unemployment rate was in 1996 when it rose from 11.8 to 11.9 per cent between March and April of that year. Since then the unemployment rate has trended downwards continuously, which marks quite a phenomenal achievement.

The biggest proportionate fall in the number of persons on the register over the last year has occurred for those aged under twenty-five years, with numbers falling by approximately 9,800, or by 29 per cent, as compared with a decline of just over 30,100, or by roughly 19 per cent, for those aged over twenty-five years. Looking at the changes in the numbers of persons on the register by region reveals that the largest falls, in both absolute and proportionate terms, occurred in the Eastern and Southern parts of the country.

Since the publication of the last *Commentary* some employment data on the public sector has become available for 1999. These showed a small rise of 4,800 in numbers employed in the public sector, excluding health and commercial semi-state companies. Some 169,500 persons were employed by end 1999 as compared with 164,700 one year previously. Within the public sector, there were small increases in employment in the Civil Service and in Education. When bearing in mind the huge growth in overall employment last year by approximately 68,000 persons, these figures further confirm that almost all job creation is occurring in the private sector.

For 2000 it is envisaged that total employment will average 1.684 million persons, rising to 1.735 million next year, underpinned by continuing gains in productivity and by high levels of investment. In percentage terms, numbers employed are expected to rise by 4.2 per cent this year, and by 3 per cent in 2001, see Table 8. This decline in employment growth reflects the anticipated slowdown in overall economic growth coupled with mounting shortages of labour. Once again, the services sector is expected to be the main engine of growth with numbers employed forecast to rise to over 1.07 million, or some 64 per cent of total employment.

TABLE 8: Employment and Unemployment*

	Annual Averages '000			
	1998	**1999**	**2000**	**2001**
Agriculture	135	139	138	137
Industry	436	459	477	489
Services	950	1,018	1,070	1,109
Total at Work	**1,521**	**1,616**	**1,684**	**1,735**
Unemployed	125	95	78	72
Labour Force	**1,646**	**1,711**	**1,763**	**1,807**
Unemployment Rate %	7.6	5.6	4.4	4.0
Live Register	227	193	159	151

*All data (including the unemployment rate) are based on ILO definitions, except for the Live Register.

Numbers unemployed are expected to continue falling with an average annual unemployment rate of just 4 per cent forecast for next year. Such a rate compares very favourably with those in the EU, where unemployment is expected to average 8.5 per cent. As a result of the forecast employment growth, the labour market is expected to tighten further, with room for continued cuts in unemployment becoming increasingly limited. It would appear that much of the unemployment that remains is predominantly frictional, given the relative stability in the short-term unemployment rate as shown in the latest QNHS which was discussed in the last *Commentary*. This tightness in the labour market is expected to be further compounded by the envisaged slowdown in labour force growth, see Box B.

Box B: Contribution to Labour Force Growth[2]

A vital factor in expanding the capacity of the Irish economy in the 1990s has been the exceptionally large increase in the labour force. A combination of different factors has contributed to this increase, of which the natural increase in the labour force has been the most important. As a result of the slow-down in the birth rate after 1980, this natural increase will begin to decline over the next decade. However, as shown below in Table B.1, it will continue to have a strong positive impact out to at least 2002.

TABLE B.1: Contribution to Annual Growth in Labour Force, (percentage points)

	1997-1999	**2000-2001**	**2002**
Natural Increase	1.7	1.7	1.5
Female Participation	0.9	0.7	0.3

[2] Based on analysis by John Fitz Gerald at The Economic and Social Research Institute.

Migration	0.8	0.6	0.4
Students	0.8	0.0	0.0
Residual	-0.4	-0.3	-0.1
Total	3.8	2.7	2.1

* The contributions do not sum to the total because of interaction and other effects, such as early retirement and changing educational participation.

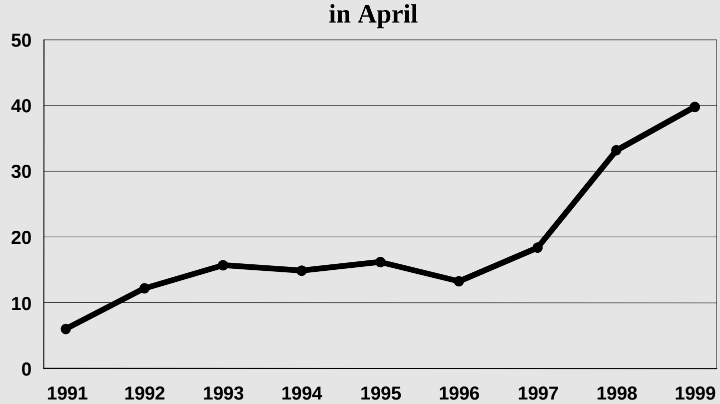
A range of other factors have also played important roles in enhancing the growth in labour supply: rising female labour force participation, migration, and rising participation by students in the work force. Table B.1 shows the positive contribution of these different factors to labour force growth since 1996.

The role of increasing female participation in the labour force has been frequently commented on. As with the continuing effects of the natural increase in the population, it will also play a positive role in enhancing future labour supply. However, as more and more women are already in the paid labour force the potential for further long-term growth in participation is reduced. At this stage participation rates for women in their 20s are among the highest in the EU. It is only for women aged over 40 that participation rates remain low. Thus our forecast for the contribution of this factor to the growth in the labour force in 2000 and 2001 is lower than over the previous three years.

The positive contribution of migration to labour force growth is expected to fall due to the sharp rise in housing costs. Because of the rapidly rising cost of living in Ireland relative to our EU neighbours, Ireland is looking less and less attractive to returning emigrants, or to foreigners interested in working here. Net immigration in the year ended April 1999 was down slightly on the previous year, and this slow-down in net immigration is expected to continue this year and next.

The factor affecting labour force growth that has received very little attention has been the contribution from rising labour force participation by students, see Figure B.1.

Figure B.1: Labour Force Participation by Third Level Students in April

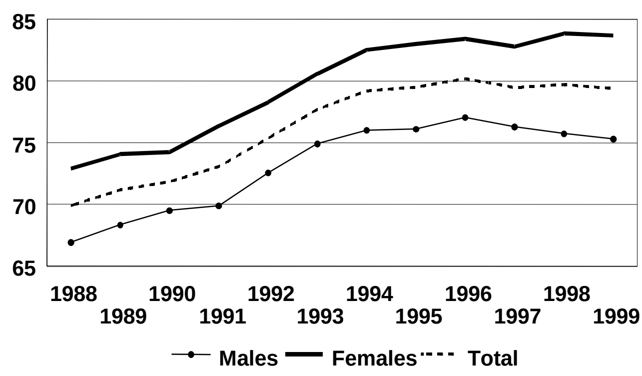


The growth in part-time working by students between 1996 and 1999 contributed around one percentage point a year to the growth in the labour force – over 25 per cent of the total increase. The labour force participation rate for students in the quarter before the traditional summer exam period was around 15 per cent in 1997. Since then however, it has risen rapidly. While some of the apparent rise may be due to changes in data collection techniques, it is clear that the rate has risen rapidly in 1998 and 1999, reaching 40 per cent in 1999. The participation rate in the summer quarter of 1999 was over 75 per cent.

Earlier in the boom the need for part-time employees in the services sector was met by rising female participation rates. However, since 1997, the rising availability of part-time female labour has not been sufficient to meet the rapidly growing demand for such employees. The result has been a very significant increase in wage rates. The rise in labour force participation by students is clearly driven by this increase in wage rates and the related growing shortage of semi-skilled and unskilled labour. The rising costs of accommodation for students living away from home has also probably contributed to the rise in availability of student labour.

This trend increase is not expected to continue, with the proportion of students in the part-time labour force already at a very high level. The participation rate for students in the first quarter of this year was still up 8.6 percentage points on the same quarter last year, but this was significantly smaller than the 11.2 percentage point increase in the previous quarter. Some educationalists would argue that this increase in student labour force participation rates has already gone too far, endangering students' long-term educational achievements. As a result, we have forecast no significant contribution to labour force growth this year and next from this source, resulting in a slow-down in the increase in the short-term growth potential of the economy. Simultaneous with

Figure B.2: Educational Participation by Population Aged 15-19



Source CSO Labour Force Survey micro-data.

the rise in part-time working by students has been a small fall in male participation in education for the 15 to 19 year old cohort, see Figure B.2. For females aged 15 to 19 years, participation in education has continued to rise, albeit very slowly, in recent years, reaching a high of 84 per cent in 1998 and 1999. This fall in male participation reflects the increase in employment opportunities in the labour market that is also giving rise presumably to increased part-time working. The gap between the educational participation rates for males and females is higher now than at any time over the last decade. The reasons behind this growing divergence between male and female educational participation rates requires further research. If sustained, the stabilisation and fall off in educational participation could adversely affect the long-term growth potential of the economy.

Incomes

Given the growth in the economy in 1999, income growth continues to accelerate. Strong employment and earnings growth in 1999 combined to increase the non-agricultural wage bill by 12.5 per cent according to NIE99. This was lower than we had estimated as was the growth in the other non-agricultural income category at 17.8 per cent. The trend for non-wage income, mainly profits and rents, to increase its share of national output continues since the late 1980s.

The preliminary figures from NIE99 confirm that agricultural incomes fell by 11 per cent in 1999 through a combination of declines in the volume of gross agricultural product and lower subsidies. The outlook for 2000 is for agricultural income to rise by 11.5 per cent, boosted by stronger output growth and the first payment under the EU Agenda 2000 package. Incomes, in line with output, are expected to stabilise somewhat, on the basis that subsidies are maintained at anticipated levels, such that the growth in 2001 is forecast to be 2.4 per cent.

Our forecast for 2000 and 2001 is for average hourly earnings to continue rising for the reasons outlined in previous *Commentaries*. This year hourly earnings are forecast to rise by 7.8 per cent on average and by 8.3 per cent next year (see Table 1). These forecasts factor in the terms agreed in the Programme for Prosperity and Fairness, while allowing for wage drift in excess of this as a result of a tightening labour market. The economy wide non-agricultural wage bill is forecast to rise by 12.7 per cent in 2000 and by 11.9 per cent in 2001. As a result, we envisage that the wage bill will rise a slower rate than national income, which is forecast to grow by 16.0 per cent this year and by 13.2 per cent in 2001. Consequently, the share of non-agricultural wages in national income is expected to continue to decline.

TABLE 9: Personal Disposable Income

Preliminary

	1998 £m	Change %	£m	1999 £m
Agriculture, etc.	2,326	-11.0	-255	2,071
Non-Agricultural Wages,	24,960	12.5	3,126	28,086
Other Non-Agricultural Income	8,795	12.4	1,091	9,886
Total Income Received	**36,081**	**11.0**	**3,962**	**40,043**
Current Transfers	6,568	8.9	627	7,658
Gross Personal Income	**43,111**	**10.6**	**4,589**	**47,701**
Direct Personal Taxes	8,568	11.0	944	9,512
Personal Disposable Income	**34,543**	**10.6**	**3,646**	**38,189**
Consumption	31,219	11.3	3,524	34,743
Personal Savings	3324	3.7	122	3,446
Savings Ratio	9.6			9.0

Forecasts

	1999 £m	Change %	£m	2000 £m	Change %	£m	2001 £m
Agriculture, etc.	2,071	11.5	239	2,310	2.4	55	2,365
Non-Agricultural Wages,	28,086	12.7	3,554	31,640	11.9	3,761	35,401
Other Non-Agricultural Income	9,886	13.9	1,371	11,257	11.9	1,344	12,601
Total Income Received	**40,043**	**12.9**	**5,164**	**45,207**	**11.4**	**5,160**	**50,367**
Current Transfers	7,658	4.8	364	8,022	6.3	504	8,526
Gross Personal Income	**47,701**	**11.6**	**5,528**	**53,229**	**10.6**	**5,664**	**58,893**
Direct Personal Taxes	9,512	10.6	1,012	10,524	9.8	1,032	11,556
Personal Disposable Income	**38,189**	**11.8**	**4,515**	**42,704**	**10.8**	**4,632**	**47,337**
Consumption	34,743	14.7	5,092	39,835	11.1	4,407	44,242
Personal Savings	3,446	-16.7	-576	2,870	7.9	225	3,095
Savings Ratio	9.0			6.7			6.5

Despite rising wages the economy continues to remain extremely competitive in international trade with non-euro countries buoyed by the depreciating currency. Forecast domestic price rises and the continued effect of dollar strength on traded prices are still expected to keep margins and profitability high for many firms, particularly in the multinational sector. The strong rise in the repatriation of profits observed in 1999 is anticipated to slow to more moderate, but still high, levels in 2000 and 2001. Net factor income flows are expected to grow at 18.8 per cent in 2000 and 11.2 per cent in 2001 in volume terms. Profitability growth is broad based across the economy with some industries in the non-traded sector, such as building and construction continuing to experience greater profitability. The other non-agricultural income category is forecast to rise significantly by 18.3 per cent in 2000 and 15.9 per cent in 2001. As noted in the last *Commentary* sources other than wages are forecast to exceed non-agricultural wage income, though this is now more likely to occur in 2000 rather than 2001 as forecast.

Budgetary reductions in personal taxation are expected to lead to a decline in the share of personal taxation in personal income to 19.8 and 19.6 per cent in 2000 and 2001 respectively. Lower taxation and increased earnings are expected to increase personal disposable income in 2000 by 11.8 per cent and 10.8 per cent in 2001. The personal savings ratio is forecast to fall from 9.0 per cent in 1999 to 6.7 per cent in 2000 as a consequence of rising disposable incomes and low real interest rates. The savings ratio however, is expected to remain broadly stable in 2001 as real interest rates recover from the lows of this year.

Consumer Prices

The acceleration in consumer price inflation that has occurred so far this year has focused domestic and international attention on the consumer price index itself and on inflationary pressures within the Irish economy. As a small open economy much of the current upturn is due to external factors and our exchange rate and as such is outside domestic policy control. However, the consumer price index is also showing very rapid increases in domestic prices.

As the annual percentage change figures in Table 10 show, the housing cost component of the index declined from the fourth quarter 1998 until the second quarter of this year. Since January 1999 interest rates have been externally determined by the European Central Bank (see Box A, *Quarterly Economic Commentary*, March 2000), and reflecting successive euro interest rate rises, the rate of decline in the housing index slowed in the first few months of this year before turning positive. The rate of increase in the remainder of the index has remained relatively stable over much of 1999. However, due partly to a large increase in oil prices and sustained euro weakness the rate of increase has grown rapidly since the end of 1999.

Although uncertainty remains, the most likely development is that the rate of price inflation will increase until the final quarter of this year, before declining over the course of 2001. As shown in Table 10, the consumer price index is forecast to show an annual average of 5.3 per cent this year. On the basis of the assumptions underlying this *Commentary* consumer price inflation in 2001 is likely to decline to an annual average of 3.6 per cent.

Box C: Towards a Decomposition of Inflation in Ireland

Annual figures for the July show the headline rate of inflation at 6.2 per cent. There has been much discussion about the impact of external and domestic factors on the rate of inflation in Ireland. With this in mind it is instructive to look at what the consumer price commodity group indices are showing. The components of the index are weighted by their expenditures in the 1994-95 National Household Budget Survey. The weights, the annual rate of change and the contribution to the increase in the All Items inflation rate are shown below.

TABLE C.1: Decomposing the Irish July Inflation Rate

Commodity Group	**Expenditure Weights**	**CPI Annual % Change**	**Contributions to overall CPI % change**
Food	22.850	4.1	0.99
Alcoholic Drink	12.630	5.1	0.67
Tobacco	4.824	17.4	0.90
Clothing and Footwear	6.131	-5.4	-0.24
Fuel and Light	4.904	7.1	0.34
Housing	8.038	10.6	0.75
Durable Household Goods	3.579	0.5	0.02
Other Goods	6.381	4.0	0.25
Transport	13.940	9.0	1.26
Services and Related Expenditure	16.723	7.0	1.21
ALL ITEMS	100.00	6.2	6.2

Source: CSO *Consumer Price Index* Statistical Release, July 2000.

The increase in the prices of some components can be related to worldwide events. The increase in oil prices, to over $30 dollars a barrel, has had an impact on the fuel and light, and the transport components, which together account for 18.8 per cent of expenditure. The fall in Irish interest rates in the lead up to EMU resulted in a decline in mortgage interest rates, thereby reducing inflation. The increases in euro interest rates by the ECB has reversed this and resulted in the mortgage interest component of housing increasing. As has received much coverage the budget decision to increase taxes on tobacco has contributed about 0.8 percentage points to our inflation rate during this year. Recently the Central Bank (*Quarterly Bulletin*, Summer 2000) has published analysis of what the "underlying" inflation rate might be by quantifying the impact of five specific shocks on the inflation rate. The largest impact is from oil prices, which adds 1.1 per cent to inflation, while tobacco prices also cause inflation to be higher (+0.7 per cent). The remaining shocks have a positive impact by reducing inflation – unprocessed food prices (-0.7 per cent), clothing and footwear prices (-0.6 per cent) and telecommunication prices (-0.1 per cent). The overall impact of these five specific shocks is to raise the inflation rate by 0.4 per cent.

Table C.2: Non-euro area Import Share of the EU11 Countries

	Imports from non EU11 as share of total imports	Share of non EU11 Imports in GDP
Ireland	81.4	42.3
Finland	64.6	16.3
Germany	56.8	12.2
Netherlands	52.9	24.8
Italy	47.8	8.5
France	46.7	9.3
Spain	42.8	9.8
Belgium	41.3	27.1
Austria	35.8	11.6
Portugal	31.1	10.7

Source: Bank of England *Quarterly Bulletin*, August 2000.

As a small open economy the exchange rate with the trading partners is an important determinant of the inflation rate, particularly the sterling exchange rate.[3] Analysis contained in the most recent Bank of England *Quarterly Bulletin* (August 2000) indicates that Ireland has the highest exposure of euro members to imports from non-EMU members both as a share of total imports and as a share of GDP, as shown below. The Bank of England analysis shows that the different trade weights result in differing movements in the nominal effective exchange rate (NEER) as the euro has weakened. Ireland's NEER depreciated by around 8.5 per cent from the beginning of 1999 to July 2000. This compares with a depreciation of 5 per cent in France's trade weighted exchange rate.

External trade statistics show our imports by area of origin. Consumption goods ready for use amounted to £7,369 million in 1999, accounting for 22 per cent of total imports. The UK accounts 47 per cent of this total, other EU states amounted to 26 per cent, and unclassified and the rest of the world account for 27 per cent.

The exposure of Irish inflation rates to trade and foreign exchange movements with non-euro area members is greater than other euro area member states. This exposure is likely to remain high in the short term, particularly while the UK remains outside EMU.

TABLE C.3: Imports of consumption goods ready for use by area of origin, 1999*

	Food, Drink, Tobacco	Other	Total
Great Britain and NI	1,104.5	2,371.2	3,475.7
	(15.0)	*(32..2)*	*(47.2)*
Other EU States	505.9	1,377.5	1,883.4
	(6.9)	*(18.7)*	*(25.6)*

[3] Fitz Gerald, J., F. Shortall, 1998. "Pricing to Market, Exchange Rate Changes and the Transmission of Inflation", *The Economic and Social Review,* Vol. 29, No. 4, October.

Unclassified by country	-	15.8	15.8
		(0.2)	*(0.2)*
Rest of World	193.1	1,800.6	1,993.7
	(2.6)	*(24.4)*	*(27.1)*
Total	1,803.5	5,565.1	7,368.6
	(24.5)	*(75.5)*	*(100)*

Source: CSO, *Trade Statistics*, December 1999.
** Percentages in brackets are based on total imports of consumption goods.*

TABLE 10: Consumer Price Index – Recent Trend and Forecast

	Quarterly Trend								Annual			
	1998		1999				2000		1998	1999	2000	2001
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2				
Index Nov. 1996=100												
Housing	104.5	100.8	93.6	92.2	93.1	86.7	90.5	96.0	102.6	91.5	99.3	111.0
Other	103.6	104.0	104.3	105.8	106.3	107.5	109.3	111.3	103.2	105.9	110.8	113.7
Total CPI	103.7	103.7	103.4	104.7	105.2	105.9	107.8	110.1	103.1	104.7	110.3	114.3
Annual % Change												
Housing	3.7	-1.2	- 8.3	-10.7	-10.9	-14.0	-3.3	4.1	1.3	-10.8	8.5	11.8
Other	3.2	2.4	2.5	2.5	2.6	3.4	4.8	5.2	2.6	2.6	4.6	2.7
Total CPI	3.2	2.1	1.6	1.5	1.4	2.1	4.3	5.2	2.4	1.6	5.3	3.6
Quarterly % Change												
Housing	1.3	-3.5	-7.1	-1.5	1.0	-6.9	4.4	6.1				
Other	0.4	0.4	0.3	1.4	0.5	1.1	1.7	1.8				
Total CPI	0.5	0.0	-0.3	1.3	0.5	0.7	1.8	2.1				

Public Finances

The public finances have never been in better shape. The strength of economic growth continues to boost tax receipts and the exchequer returns for the first half of 2000 indicate that, as in recent years, there will be surpluses greater than that expected at Budget time. The Department of Finance has since revised upwards the forecast exchequer surplus to £1,800 million in 2000. The public finances have been complicated in the last two years by the treatment of the receipts from the privatisation of Telecom Eireann and the decision to set aside 1 per cent of GNP to pre-fund future pension liabilities. The decision taken over the summer to have just one single fund for both public servants and social welfare pensions, instead of the two as previously announced, will affect the treatment of the funding in the general government account. The surplus on the general government balance will seem larger than previously forecast as the public service pension fund will not now be excluded from the general government account.

In line with growth in the broad economy, our forecast is for direct taxation receipts to grow nearly 14 per cent and 16.1 per cent for indirect taxes in 2000. Government total current revenue, including non-tax receipts, is forecast to grow at 16.5 per cent in 2000 and 11.4 per cent in 2001. Government current expenditure is also growing strongly despite a moderate fall in central funds and the acceleration is forecast at 5.5 per cent in 2000 and 5.3 per cent in 2001. The surplus in the current budget, which is already strongly ahead by mid-year, is expected to rise to 8.4 per cent of GNP in 2000 and 9.6 per cent in 2001.

The impact of privatisation and pre-funding occurs on the capital receipts and expenditures components of the government accounts. The payment into the special fund is treated as expenditure out of the exchequer, though it remains within the broader general government sector. In 1999 this special fund expenditure amounted to over £4,500 million, but is much lower in 2000 and 2001 as the impact of privatisation receipts falls out. In 2000 this is forecast to be £1,875 million and £777 million in 2001.

The capital borrowing requirement offsets the current budget surplus to produce the exchequer surplus. The exchequer surplus is forecast to increase from 2 per cent of GNP in 1999 to 4.1 and 5.3 per cent in 2000 and 2001 respectively. The broader general government surplus, used to assess the fiscal position within the terms of the EU Stability and Growth Pact, is forecast to increase its share of GDP from 1.9 per cent in 1999 to 3.8 and 4.8 per cent in 2000 and 2001. The general government debt to GDP ratio could continue to fall from 50.1 per cent in 1999 towards 30 per cent by 2001 on the basis of the surpluses and output growth. On any measure the public finances continue to be very strong.

TABLE 11: Public Finances

	1999	% Change	2000	% Change	2001
Current Revenue	18,992	16.5	22,117	11.4	24,644
Current Expenditure	15,554	5.5	16,403	5.3	17,277
Current Surplus	**3,438**	66.2	**5,714**	28.9	**7,367**
Capital Receipts	4,519	-66.2	1,981	-52.6	939
Capital Expenditure	6,766	-17.1	4,930	-13.8	4,249
Capital Borrowing	**2,247**	31.2	**2,949**	12.2	**3,310**
Exchequer Surplus*	**1,191**	132.2	**2,765**	46.7	**4,057**
as % of GNP	2.0		4.1		5.3
General Government Surplus	**1,330**	128.6	**3,040**	44.2	**4,385**
as % of GDP	1.9		3.8		4.8
Gross Debt as % of GDP	**50.1**		**40.4**		**31.4**

* The treatment of pre-funding of pension and privatisation receipts, included in these figures, is subject to revision making the forecast provisional.

General Assessment

The Irish economy continued its exceptional performance throughout the 1990s with yet another near double-digit rate of growth in economic activity last year. The CSO in its preliminary *National Income and Expenditure* release in July estimated real GDP growth at 9.8 per cent in 1999. What makes this high growth rate more remarkable is that it follows six years of unprecedented expansion, with real GDP growth averaging 8.7 per cent and rather than slowing, has accelerated since 1998. It is expected that there will be no appreciable diminution in growth in 2000. Indeed the most recent phase of growth over the last three years has averaged 9.7 per cent in GDP terms and 8.3 per cent in GNP terms. While these rates are almost certainly above what can be sustained in the medium term, the economy is expected to remain on a higher growth path compared to other countries for the foreseeable future, with growth in GDP for 2001 expected to be near to 7 per cent.

This phase of rapid growth constitutes a unique opportunity to ensure that the benefits of the boom are widely distributed and that sufficient investment is made to improve future supply capacity of the economy. While inevitably there are risks that such a benign scenario may be undermined, these need not be exaggerated. The most immediate threat arises from unjustified expectations. These expectations can veer towards two extremes. The first is wild optimism about the economy's ability to continue to grow at current high rates indefinitely, the second is undue pessimism that what goes up, must come down so the economy heading for sharp slowdown. While these are extremes, they may usefully characterise the differing views expressed on the sustainability of Irish economic growth.

The performance of the economy has attracted increased attention internationally in recent months, particularly since consumer price inflation has risen significantly to a rate above 6 per cent in July. The combination of rising prices and rapid growth is taken to be an indication of an overheating, booming economy that must be heading for a bust. Ireland has also been held out as an example of an economy suffering a problem with inflation as a consequence of the *one size fits all* monetary policy within the euro-area. The counterpoint to this pessimistic view, offered in the main by domestic commentators, has been to argue that such boom-bust analysis fails to account for the favourable structural changes that have occurred in the Irish economy which needs to be viewed as a regional economy within a large monetary union. These polar views stem from a fundamental uncertainty about the position of the Irish economy, that is, whether it is a classic upswing phase of a business cycle or trending in a period of transition to a higher growth path. This is the crucial question, as policy prescriptions differ according to which situation holds, at least in a traditional national economy framework. Before attempting an answer it is salutary to acknowledge that *we need to be modest in our claims to understand the limits of a small open economy undergoing rapid structural change.*[4]

There are different ways of looking at an economy's performance that depend on whether one views it as a national economy or a regional economy.[5] In determining the prospects for a large closed national economy, productivity growth is ultimately the crucial determinant. In a small, open regional economy it is the ability to export that is the important determinant of growth and living standards' prospects. The extreme openness of the Irish economy to international trade flows has led to domestic policy over the last four decades pursuing growth strategies that are consistent with this external orientation.[6] The competitiveness of a regional economy, like Ireland, is therefore critical for its continued success. A fundamental worry is that self-imposed policy mistakes, encouraged by exaggerated optimistic expectations on output growth or

[4] Quote taken from an article accompanying this *Commentary* by J. McHale "Options for Inflation Control in the Irish Economy".

[5] P. R. Krugman, 1997. "Good News from Ireland: A Geographic Perspective", in A. Gray (ed.) *International Perspectives on the Irish Economy*, Dublin: Indecon.

[6] See J. Bradley, 1999. "Economic Management in Ireland Post-EMU: Policy Implications of Globalisation and Regionalistion*", Journal of The Statistical and Social Inquiry Society of Ireland*, Vol. XXVIII.

pessimistic expectations on price increases, would lead to serious erosion in competitiveness. This would be particularly damaging within the context of a monetary union where the option of devaluation, called upon in the past to restore competitiveness, would be unavailable.

In this regard the recent surge in inflation, while certainly a threat to the competitiveness of the economy if sustained, may be fortuitous from a policy perspective if we can grasp the opportunity it presents to reconsider how best to deal with economic realities within economic and monetary union. While the policy instruments are limited, the economic environment in which this inflation problem must be tackled could hardly be better, particularly compared with the last period of high inflation in the 1970s and early 1980s. In contrast to that period, economic activity is strong and the public finances robust, inflation is rising against the backdrop of full employment, the currency is weak boosting competitiveness and the social partnership framework offers an opportunity to take action on a consensual basis. As the former editor of the *Commentary* noted in a reflective article last December *"with no single overriding threat now facing the economy, it will be much more difficult to define the aims of a consensus strategy"*.[7] The threat has now arrived in the form of inflation and in dealing with it, the economy may well find itself at an inflection point for domestic strategic policy.

The review under way on the *Programme for Prosperity and Fairness* (PPF) needs to give serious consideration to the context and causes of inflationary pressures, as much as to the symptoms that precipitated the review process. This is not to downplay the symptoms, manifesting in the erosion of the wage increases under the PPF while the economy continues to grow strongly in real terms. The cost of unanticipated inflation can be quite high, particularly its arbitrary impact on income distribution so that those with fixed nominal income suffer its consequences disproportionately. The rise of inflation can considerably alter expectations about future price changes leading to wage-price spirals that quite quickly erode the competitiveness of a regional economy. The PPF review is attempting to avoid re-opening discussions on the wage elements of the programme by focusing instead on options that tackle the price index directly or involve deferred remuneration. A broad range of options have been put forward to tackle the recent rise of inflation. McHale in a signed article accompanying this *Commentary* reviews the main options using what he describes as two common-sense criteria: that measures should not further fuel demand nor lead to increased wage and price rise pressures. Most of the options fail at least one of these tests. The proposals on deferred compensation mechanisms, such as pension bonds or individual retirement accounts, and increased deregulation to foster competition would seem to have the most potential, though they are hardly quick panaceas to set up. The article highlights the dearth of effective options to tackle inflation in the economy.

In addition to identifying short-term remedies to contain wage pressures, most crucially to stem the onset of inflationary expectations, the focus of the PPF review must see the rise of inflation within the new realities of the Irish economy. Not only must the economy operate in a

[7] T.J. Baker, 1999. "The Irish Economy: Then, Now and Next", *Quarterly Economic Commentary*, December, Dublin: The Economic and Social Research Institute.

globalised environment as a regional economy within a monetary union with limited available short-term demand management tools, but Ireland is fast approaching a full employment situation. The fall in unemployment has been quite remarkable. In 1993 the unemployment rate was 15.5 per cent but since 1996 the rate has consistently fallen to the current level of 4.4 per cent. We forecast that the unemployment rate will fall below 4 per cent during 2001.

The existing wage bargaining structure within the national agreements, designed to ensure job growth in return for wage moderation achieved through income tax cuts, was based on rigidities. These included rigidity on wage increases which was seen as the main attraction for the business community. These wage increases often proved to be quite modest in nominal terms given the strength of economic growth. Low inflation did little to erode the real value of incomes over the last decade but that is now changing.

The share of wages in economic activity began a steady decline in 1987 that is still continuing despite large rises in the wage bill in recent years.[8] On the basis of our forecasts, non-agricultural other income, which includes profits, professional earnings and rents, is set to exceed non-agricultural wage income for the first time in 2000. The wage element has fallen as a share of combined wages and profits from 62 per cent in 1992 to 48 per cent forecast for 2001. Even with the wage bill rising by around 12 per cent in nominal terms both this year and next, it will still not halt the trend decline in labour's share. While the economic pie has expanded considerably and the slice going to labour has also increased, it has declined relative to the share going to capital in the form of profits and rents.

This trend for wage share to fall will hardly persist over the medium term in a full employment economy situation where the scarcity of labour can be expected to attract a higher price. Wage growth in the private sector has begun to acknowledge this reality with higher remuneration packages, involving share options and performance bonus etc, above the level provided for by the terms of the PPF. Caution, however, must be exercised when drawing inferences from this falling trend in wage share within an economy like Ireland. Trends in the split between wages and profits on an unchanged industrial base would be relatively easy to interpret. This is not the case for Ireland where the composition of the economy is undergoing a transition and, given its openness to highly mobile capital and foreign direct investment flows, is capable of experiencing significant industrial structural change over a short time frame.[9]

[8] P.R. Lane, 1998. "Profits and Wages in Ireland, 1987-1996", *Journal of the Statistical and Social Inquiry Society of Ireland*, Vol. XXVII, Part V.

[9] Structural shifts between sectors towards high-technology industries have been important factors in the falling share of labour. These high-technology firms, attracted by a systematic policy of cultivating foreign direct investment, tend to be export-oriented with high productivity levels making them capable of bidding up wages in the domestic economy. The wage moderation achieved through the national agreements has allowed Ireland to avoid the so-called "Dutch Disease", a situation whereby the capacity to pay higher wages in the traded sector spills over into higher non-productivity justified wages in the non-traded sectors. The declining wage share in Ireland since 1987 could be interpreted as an indication of the success in avoiding this outcome.

Expectations of higher inflation driving up wage demands would certainly go some way to reversing this trend in declining wage share, but the danger is that it could turn out to be a bigger slice of a diminishing pie. The task for the social partners is to find a controlled way to harness the benefits of full employment without damaging the economy's long-run growth potential through excessive wage overshooting. A new approach to social partnership seeks to make problem-solving a central aspect of the process and critical to its success.[10] The current impasse offers an ideal test of this view. The solution in the private sector involves flexibility in the wage structure, a move away from rigid certainty on the wage bill to one that still provides predictability, but in a conditioned manner. The PPF, and any future agreements, will probably need to introduce mechanisms for flexibility to get economy-wide gain sharing.

The PPF already has as one of its objectives the increase in the use of profit-sharing schemes, albeit at the level of the enterprise. The programme is predicated on average real GNP growth of 5.6 per cent per annum over the thirty-three months of the agreement. Growth above or below this average rate would allow for more or less resources to be applied to the various elements of the programme. The discretionary nature of this option does little to enhance the credibility necessary to temper unrealistic expectations whereas a more explicit committed approach may prove more effective.

A proposal put forward last November in advance of the PPF negotiations to introduce such an explicit commitment involved the use of an automatic form of economy-wide gain sharing.[11] This involved workers getting an explicit stake in economic growth, receiving a basic pay increase to cover expected inflation and a supplemental increase based on the rate of growth in GNP per worker. The performance criteria could be based on a moving average over a number of years to surmount a problem of pro-cyclicality that may otherwise emerge where wages rise in booms and fall in troughs. Again this proposal is not without its difficulties since it would inevitably involve a great deal of monitoring and bureaucracy, and it excludes the non-waged. There is, however, a pressing need for some imaginative solutions.

Given Ireland's openness, the inflationary process is significantly, though not exclusively, determined by external factors as discussed in detail in the June *Commentary*. While the recent rise in the consumer price index (CPI) can be explained by fundamental factors, even if *ex post* rationalisation is required, it is still the case that real incomes and wealth are being eroded and distortions introduced into the economy because it was unanticipated inflation. It is a real problem, and dismissing it away by *Marie Antoinette* style selective item exclusions from the CPI does not alter this fact. Treating the symptoms rather than the causes if implemented through what are ultimately demand expansionary measures would be an act of folly. The strong state of the public finances probably allows for both symptoms and causes to be addressed in the short and medium term respectively. The immediate impact of inflation on fixed incomes, such as

[10] R. O'Donnell, 1999. "Social Partnership: Principles, Institutions and Interpretations", in P.J. O'Connell (ed.), *Astonishing Success: Economic Growth and the Labour Market in Ireland*, Geneva: International Labour Office.

[11] D. De Buitleir and D. Thornhill, 1999. "New Model Needed for Wealth Distribution", *Irish Times*, November 26th.

pensions, could be addressed by focused indexation measures brought forward in the next Budget, while coping with the determinants of the problem will be yet another test for the Irish social partnership model. The consolation for the model is that there now is a new readily agreed key problem to tackle. How the problem is addressed will invariably impact on the economy's competitiveness and that will ultimately determine the growth prospects for the Irish economy into this new millennium.

Options for Inflation Control in the Irish Economy

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1. Introduction

Following years of exceptional growth with stable prices, inflation has emerged this year as a pressing policy concern. The Consumer Price Index (CPI) in July was 6.2 per cent higher than a year earlier, rising by 2.4 per cent in just four months. This is in sharp contrast to the years between 1992 and 1999, when the annual inflation rate averaged just 1.9 per cent, peaking in 1995 at 2.5 per cent (Central Statistics Office, 2000). This deterioration has raised fears that the economy is "overheating" in a way that threatens the sustainability of Ireland's remarkable boom.[12]

And booming it certainly is. Recent figures estimate that GNP grew by 7.8 per cent in 1999, with GDP growing by a staggering 9.8 per cent, the sixth straight year of very fast growth. Indications are that strong growth continued in the first half of 2000, propelled in part by substantial tax cuts in the 1999 budget. Although a rise in oil prices, a depreciating euro and a cigarette tax increase in the budget have added to inflation, there is no doubt that strong domestic demand is adding to the price pressures. This is most evident in the even higher rate of service price inflation, which ran at 7 per cent in the twelve months to July, but is also evident in high job vacancies, growing road congestion, inflated house prices, and possibly even in increased industrial unrest.

This sharp increase in inflation has raised fears that a price-wage spiral is taking hold, a spiral that could undermine the economy's evident competitive advantage in attracting foreign investment and also make it more vulnerable to a downturn in demand. The inflation also threatens the latest social partnership agreement, the Programme for Prosperity and Fairness (PPF), with price increases set to wipe out the real gains from the 5.5 per cent nominal wage increase agreed for this year. At the core of the social partnership agreements has been a government offer of tax relief in return for wage restraint, a formula that has worked surprisingly well given the increasing dissatisfaction with corporatist-type arrangements in other European countries (see Phelps, 2000).[13] Initially it provided needed demand stimulus in a depressed economy, while keeping Irish labour costs competitive and providing real, albeit limited, gains to workers.

Unfortunately, the formula is much less well suited to an overheating economy with almost no control over its monetary policy. Tax cuts add to domestic demand, fuelling a price-wage spiral as businesses in the sheltered part of the economy comfortably raise their mark-ups and workers are emboldened to push for higher wages. But if tax cuts are not offered workers will push for wage increases anyway to achieve real gains in living standards. Thus the government faces a dilemma under the current partnership formula-cut taxes and add to demand or hold back tax cuts and add to the spiral for any given level of demand.

This short paper explores some suggestions for getting around this dilemma. To begin with, however, we first ask in the next section if inflation is really so worrisome in the current Irish context. Although economists tend to have a congenital aversion to inflation, some prominent commentators have recently argued both that Irish growth is robust enough to withstand a loss of wage competitiveness and that

[12] See Central Bank of Ireland (2000a) for a detailed review of trends in prices, costs, and competitiveness.

[13] The Netherlands is a prominent exception, where a social partnership agreement that predates the first Irish agreement is given much of the credit for a dramatic economic turnaround.

inflation is a natural part of the adjustment process in a rapidly growing economy. These arguments cannot be easily dismissed. Even so, it is argued that there are real risks that a price-wage spiral will slow Ireland's exceptional trend growth and make the economy more vulnerable to a demand-side slowdown. In Section 3, it is proposed that any anti-inflation strategy should pass two common-sense tests: it should not add to domestic demand and it should not put upward pressure on business mark ups or on real wage demands for any given level of economic activity. Section 4 turns to some imaginative and some not-so-imaginative suggestions for reducing inflation, and finds that a number of prominent proposals fail the common-sense tests. Section 5 has some concluding observations.

2. Is Inflation a Worry?

A number of economic commentators – interestingly many of whom work for financial institutions – have argued that we should not be worried, see for example O'Leary (2000). They offer forceful arguments in support of this confidence in the robustness of the Irish boom. First and foremost is the claim that the boom is being driven by underlying growth in the supply potential of the economy, helped by ever increasing flows of foreign direct investment and favourable demographics. And they contend these favourable factors show few signs of diminishing. Despite rising wages, the competitive advantage of Ireland in the contest for foreign funds is, if anything, improving–witness the recent announcements of expansions by some of the world's leading high technology businesses. This is plausibly attributed to "clustering effects", whereby early investments lead to a local supply of labour with industry-specific skills and induce the setting up of firms and the building of infrastructure dedicated to the supply needs of the multinationals.[14] Rapid productivity growth, then, is more than compensating for rapid wage growth.

Even if inflation does lead to some loss of competitive advantage, there is the further argument that rising relative prices in the non-traded sectors is normal as an initially poor economy rapidly catches up to its richer neighbours. The trend in non-traded goods price is explained by the combination of relatively low productivity growth in the service sector of the economy and the tendency for people to demand relatively more services as their incomes increase. Moreover, a booming service sector is welcome insofar as it helps to spread the foreign direct investment driven prosperity throughout the economy. Relatedly, with unemployment down to 4.4 per cent and falling, we should expect rapid wage growth across all sectors. When unemployment was closer to one-fifth of the labour force it made sense to take the dividend from foreign investment in the form of jobs rather than wages. But in today's dynamic market economy unemployment cannot realistically fall much further. People in work – both in the traded and non-traded sectors – should see their living standards improve.

But can we be so sanguine? The Irish boom is not the first occasion that economists have claimed that an economy can safely ignore the old warning signs of overheating. The boom in the United Kingdom in the late

[14] For a considered view on the linkages, spin-offs and agglomeration economies in the Irish case, see Barry and Bradley (1997).

1980s, during which the Chancellor of the Exchequer famously declared the widening current account deficit was not a reason for concern since it was caused by buoyant private sector investment, is a useful reminder. More recently, a number of fast-growing Asian economies believed they could ignore growing macroeconomic balances, but experienced deep recessions as international capital flows dried up following Thailand's devaluation in mid-1997. Ireland does not have a large current account deficit, or the financial sector problems that made the Asian economies so vulnerable. Nonetheless, it is not too difficult to think of scenarios in which inflation triggers a hard landing for the economy.

For example, can we really be so sure that foreign investment will continue to flow to the Irish Republic as it loses its cost advantage. The clustering effects may well be outweighing the decreasing labour cost advantage now. But a number of years of relatively high wage growth would compound to a substantial change in Ireland's relative cost position. The market for foreign direct investment is quite competitive, in part because other countries have learned from the Irish success. The claim that high productivity growth offsets the rapid growth in wages also needs to be treated cautiously. Besides the obvious point that productivity growth rates differ between sectors, we must recognise that the improvements in productivity are largely the result of the foreign investments, not the cause. If a particular multinational had invested in Scotland, say, instead of Ireland, then Scotland would have had the boost to productivity. Thus high *de facto* productivity growth does not prove that high wage growth is not undermining the Irish advantage in attracting *future* foreign investment flows. What matters for future investment flows is the relative returns on new investments.[15]

What about the observation that an increase in the relative prices of non-traded goods is a natural part of the catching up process? While the basic point is undoubtedly true, allowing a price-wage spiral to develop could bring the catching up process to a premature end. As prices chase wages and wages chase prices in the non-traded sector, non-traded goods prices will increase substantially while yielding relatively modest increases in real incomes. The rise in non-traded prices puts pressure on wages and other costs in the traded sector. With limited pricing power in competitive international markets and a fixed exchange rate, the competitiveness of the traded sector will be harmed. The bottom line is that though a rise in the relative price of non-traded goods is inevitable, it matters how it happens. Unbalanced growth driven by run away domestic demand could prematurely stop, or at least slow, Ireland's catch up growth.

These counter arguments relate to the affect of inflation on Ireland's long-run growth path, and especially on Ireland's continued ability to attract impressive quantities of foreign direct investment. But it is also worth considering what effect a greater than expected slowing in Ireland's underlying trend growth rate would have on domestic demand.

[15] Even for those who are confident that Ireland's competitive advantage is secure recognise that some cost-sensitive sectors will be harmed. However, the releasing of resources to high value-added sectors is plausibly considered a positive development. But here too a note of caution is warranted. Skill-related income differentials are already rising. If Ireland loses its competitive standing in more assembly-oriented industries, the released workers might not easily be able to find employment in the expanding skill-intensive sectors. There are also regional factors to consider, as the high skill-intensive industries have shown the greatest tendency to form their clusters around the main urban centres.

Expectations of rising incomes and easily available jobs underpin high consumer confidence at present, and they give house buyers the confidence to bid extraordinarily high prices for even modest homes. They also induce the banks and other lending institutions to grant generous credit lines. A diminution in long-term prospects could cause consumers, potential house buyers and lending institutions to retrench. Any fall in house prices would have a negative effect on the net worth of many households, possibly causing them to cut back still further on their spending. Recessions have a nasty way of feeding on themselves in their early stages. Even a small change in the underlying trend growth rate could trigger a temporary fall in output below potential. A steeply rising underlying growth path, which it is reasonable to assume that Ireland will continue to have, does not make an economy immune from an old-style, demand-deficient recession.

Another distinct possibility is that Ireland's trading partners fall into recession. The United States, which has been the main spending engine of the world economy over the last few years, is growing significantly faster than its trend from the 1970s to the mid-1990s. Although there are indications that there has been a new technology-led increase in trend growth, there are also worrying signs of vulnerability. Inflation has started to pick up prompting the Federal Reserve to raise interest rates, and the current account deficit has risen – accompanied by a rising dollar – to close to 4 per cent of GDP. Many economists also worry that US stocks are seriously overvalued. A loss of investor confidence would lead to a sharp correction in stock prices and probably a fall in the dollar. A depreciating dollar would add to inflation, limiting the ability of the Federal Reserve to respond to falling demand with interest rate cuts. A recession in the United States could have a strongly adverse effect on the Irish economy, particularly given the high share of foreign direct investment that is accounted for by US multinationals.[16]

But is this relevant to a discussion of the dangers of Irish inflation? Irish businesses would, after all, be negatively affected by a world recession regardless of the inflation rate. The reason it is relevant is that high inflation, and expectations of high inflation, would make it harder for the Irish government to respond with a counter cyclical fiscal policy.

In sum, then, there probably is reason to worry about the effect of inflation on growth, though the arguments for not worrying cannot be dismissed. We need to be modest in our claims to understand the limits of a small open economy undergoing rapid structural change. Even if we cannot be certain about the greatest risks, on balance we should be cautious and take measures to dampen the inflationary spiral.

[16] The ESRI in the *Medium-Term Review* 1999-2005 (Duffy, Fitz Gerald, *et al.,* 1999) considered the impact of external shock to the Irish economy caused by a 25 per cent fall in the value of the US stock market. In reaction it was assumed that investment in the high-tech sector in Ireland falls temporarily by a third compared to the baseline. Such a shock would push GNP 3 percentage points below the central forecast of the *Review* returning to the baseline after four years; unemployment would rise by 3 percentage points by the second year before returning to baseline in year five.

3. Commonsense Criteria

Inflation dynamics are hard to predict in an economy undergoing rapid change. Experience, however, has taught us two important lessons. First, inflation will rise if GDP growth is pushed beyond some threshold level.[17] With the economy booming and jobs plentiful, businesses can more comfortably raise their margins and workers are better able to push for wages with greater purchasing power. Thus price setters strive to push up prices over their wage (and other) costs, and workers strive to push up wages over prices.[18]

Second, once inflation is established it becomes expected. An unfortunate consequence of this is that even a temporary burst of inflation due to currency depreciation or an increase in the price of oil, say, can have long-lasting effects on the inflation rate. The impact of a temporary rise in inflation due to external factors on the longer-term inflation rate depends to a significant degree on the "policy regime". An oil price led increase in the current inflation rate is unlikely to lead to a revision of inflation expectations for the longer term if an inflation-averse central banker controls demand management.

The danger of spiralling inflation and inflation expectations in an overheating economy suggests two minimal criteria that a good inflation-lowering strategy should meet.

1. Your policy response should not fuel demand still further.
2. The strategy should not cause businesses to increase their price mark-ups or workers their real wage demands for any given level of economic activity.

Focusing on these criteria makes clear the inflationary dilemma that the government faces. On one hand, the government has promised workers tax cuts (and spending increases) in return for wage restraint. On the other hand, the lax fiscal policy is fuelling demand – and thus the price-wage spiral – in an already overheating economy. Last December's budget alone is estimated to have added two per cent age points to the growth in domestic demand, according to the Central Bank (2000b). The government faces a difficult problem: workers' living standards need to be protected from rising prices, while not adding to demand, and without raising employer costs. These are costs that they are likely to pass on in the form of higher prices.

4. A Brief Review of Prominent Inflation Reduction Proposals

The recent rise in inflation, in addition to attracting much comment, has brought forward a number of inflation-control proposals. We examine some of the main strands of options put forward. The foregoing analysis, sketchy as it is, dictates that any proposal to reduce inflation meet the two common-sense criteria. It should not add to demand and it should not increase price mark ups or real wage demands at any given level of economic activity.[19]

[17] The Irish experience in the 1990s has shown that this threshold can be quite high and can vary over time.

[18] Layard *et al.* (1991) and Phelps (1994) provide rich models of economies with such features.

[19] We could also reasonably add a third criterion: the policy should enhance rather than diminish the governments stated anti-inflation resolve.

4.1 Control the Prices of Items that Enter into the CPI

Various price control proposals have been made, including cutting excise taxes, freezing public charges and, disturbingly, direct private sector price controls, such as those imposed on alcoholic drinks in public houses. Insofar as such "index massaging" reduces the headline inflation rate it can have a beneficial effect on inflation expectations. However, it fails the test of not adding to domestic demand, since it frees up money for people to spend on other goods. The most likely effect is that price pressures are redistributed to other sectors in the economy. Added to that is the fact that it is hard to hold down prices indefinitely. Price increases are, in effect, being stored up for a not necessarily more inflationary benign future.[20]

Neither should we forget the vast experience with the unwanted side effects of price controls. Taking controls on drink prices as an example, it is likely they will lead to overcrowding, declining standards of service, added administrative expense, turn publicans into law breakers as the lure of profits leads to a flouting of the price orders, and possibly even corruption. Private sector price controls should not be part of the anti-inflation arsenal.

4.2 Raise Employer PRSI Contributions to Fund Services such as Improved Childcare

The rationale behind this policy is to compensate workers for inflation without going outside the terms for nominal wage agreements in the PPF. The obvious drawback is that it adds to employer costs, costs that will be at least partially recouped by charging higher prices. It thus fails the test of not adding to price mark-ups for a given level of demand. On the demand side the policy has the apparent merit that it involves a tax increase rather than a tax decrease. Since the taxes are earmarked for immediate spending, albeit capital expenditure, the policy might expand rather than contract overall demand.

4.3 Expand Gain-sharing/Profit-sharing Schemes

One of the most innovative proposals for restructuring the social partnership agreements has been to introduce a form of national "gain-sharing". In a well-worked out proposal by De Buitleir and Thornhill (1999), employees would receive a basic pay increase (related, say, to expected inflation in the euro area), and a supplemental increase based on the rate of growth in GNP per worker.[21]

The merits of the proposal are that it gives workers a well-defined stake in economic growth and that it is flexible. It fails, however, the requirement that it not boost domestic demand and wages when the economy is overheating. The increases will be largest when GNP is growing faster than its maximum non-inflationary potential – exactly when restraint is needed. The impetus to demand would probably be greatest when this scheme is applied to the public sector (their intention), as the

[20] See McCoy (2000) for a critical look at "index massaging" policies.

[21] The strict proposal applied to pay increases for public sector workers, although they made clear that they could be applied in the private sector as well. For details, see De Buitleir and Thornhill (1999).

wage increases have their counterpart in smaller budget surpluses rather than smaller profits. One possible way to improve the scheme would be to base the increases on some measure of trend growth, although this would raise serious problems of trend identification in a fast growing economy undergoing rapid structural change (Cronin and McCoy, 1999).

A related alternative is to expand the use of more old-fashioned company profit sharing schemes. In the classic profit sharing scheme workers get a base wage plus some share of the profits.[22] A key element is that the share of profits going to workers as a group is fixed. Businesses have an incentive to hire more workers, assuming of course that the base wage is set lower than the wage without profit sharing. In the colourful words of the profit sharing advocate Martin Weitzman, "[s]hare firms ever hungry for labour are always on the prowl – cruising around like vacuum cleaners on wheels, searching in nooks and crannies for extra workers to pull in at existing compensation parameter values" (Weitzman, 1984, pp. 98-99).

Businesses have, in effect, the incentive to "move down their demand curve" hiring more, producing more and charging lower prices to sell the increased output. It thus more than meets the criterion that the policy should not put pressure on price mark ups. The main obstacle is that such schemes are notoriously hard to negotiate, in part because macroeconomic benefits of adopting the scheme are not reaped by individual businesses. Workers might be only willing to accept the scheme if it offers an increase in overall pay. If workers have a higher propensity to consume than business owners, this would have an expansionary effect on demand.[23] In any case, a significant expansion of profit sharing schemes is really only realistic as a longer-term goal; they are unlikely to be much help in the immediate fight against inflation.

4.4 Limit Increases in Public Capital Spending

The government has committed itself to large increases in capital spending under the National Development Plan and other commitments. There is no doubt that a major infrastructure upgrade is needed. The problem of congestion, for example, has, like excessive wage increases, the potential to undermine Ireland's competitive edge in attracting overseas investment, not to mention the deleterious effects on quality of life. Inadequate infrastructure can also directly contribute to inflation. A good example is the added house price inflation caused by poor prospects for increasing the supply of serviced land.

So there is a difficult trade-off. More government spending directly and indirectly expands domestic demand, but more infrastructure spending is badly needed. The government needs to push ahead with project planning and should not delay the most urgent projects, especially those that will take a long time to complete, such as a Metro system for the capital. Less urgent projects could be held in the pipeline for a time when there is less inflationary pressure. This would help Ireland move away from

[22] A related proposal was advanced by Geary (1996) for Irish firms to deal with currency volatility within EMU whereby workers' would have part of their wages linked to currency movements in sterling-linked wage contracts.

[23] A possible effect working in the opposite direction is that workers increase their "precautionary saving" in response to their more uncertain incomes.

its tradition of pro-cyclical fiscal policy, see Lane (1998). If the world economy were to fall into recession, a backlog of pre-planned projects sensible from a long-term cost-benefit perspective would help prevent an overly sharp decline in Ireland's growth rate.

4.5 Deregulation of Entry and Pricing

Competitive forces could be harnessed to reduce price mark-ups if entry barriers were relaxed in areas such as the taxis, the drinks trade and the professions (OECD, 1998). The main rationale for such policies is to improve resource allocation in the economy.[24] Licensing requirements result in too few taxis, too few (hard to believe as it might seem) and inappropriately located public houses, among other distortions. Increasing competition in these sectors would, however, put downward pressure price mark-ups with minimal contribution to demand,[25] and thus should be beneficial overall from an inflation control perspective.

If the rise in inflation has a "silver lining," it is pressure to remove these damaging impediments to competition. Of course, the beneficiaries of protection will fight hard to protect their profits. Although compromises might have to be made to co-opt affected businesses to support reform, the government should be guided by the principle that sectional interests do not have "property rights" in bad laws and policies.

4.6 Deferred Compensation Measures
– Use of Individual Retirement Accounts or Pension Bonds or Savings Incentives

As noted already, the government faces a difficult task in devising policies that provide increases in real pay but do not add to demand. These twin goals suggest some form of deferred compensation.

One attractive possibility is for the government to use part of its budget surplus to make contributions to some sort of individually controlled personal retirement accounts, building on existing proposals for tax-favoured Personal Retirement Savings Accounts (PRSAs), see McHale (2000). A second option endorsed by the Irish Congress of Trade Unions is a related proposal for pensions bonds, which would be given, in lieu of tax cuts, to social insurance contributors and to retirees. It is envisioned that the pension bonds would offer a return equal to the growth rate of GNP. Lastly, the idea of giving tax breaks for long-term savings as a means for slowing the growth of personal consumption.

These policies need to be evaluated from both the perspective of long-term retirement income policy and the perspective of short-term inflation management. Desirable long-term features of a retirement income policy are that it add to rather than subtract from national saving, that it not distort labour work and retirement decisions, and that it ensures adequate income replacement in retirement. Any proposed policies must

[24] It should be added, however, that Irish product markets are relatively lightly regulated relative to many of our European partners.

[25] Demand might increase slightly if the propensity to consume out of real wages is greater than the propensity to consume out of profits.

also be considered in the context of the existing retirement income system.[26]

Which of the alternatives is best from the point of view of long-term pension policy? Government contributions to individual accounts and tax incentives for savings should add to national saving if they substitute for broader income tax cuts. Pension bonds, which are simply government IOUs, do not add to national saving directly, but saving is increased if they substitute for tax cuts and allow the government to run a larger budget surplus.

The impact of the personal retirement account plan on work incentives depends on how it is structured. If the contributions are earnings-related, then they increase the overall return to work. If they take the form of a flat contribution to workers and non-workers, they do not improve incentives, and may even reduce labour supply through an income effect.[27]

The impact of tax enticements for saving on work incentives is probably small, though there is some improvement due to the fact that, provided the worker saves something, work buys additional lifetime consumption. Since the pension bond plan envisions giving them to workers and non-workers, it does not improve the incentive to work.

Finally there is the issue of adequacy. This has two dimensions: ensuring pensioners are not living in poverty; and ensuring reasonable income replacement in retirement. Pension bonds or flat contributions to personal retirement accounts are probably best designed for poverty alleviation, whereas earnings-related contributions to personal accounts and saving incentives offer better prospects for higher income replacement rates.[28]

[26] The main elements of this system are a flat state benefit and supplemental occupational pensions. At 28 per cent of average industrial earnings, the flat benefit is not generous (OECD, 1999). Ireland is also one of the few countries in the OECD without an earnings-related state pension. Only 46 per cent of the population are covered by occupational pensions, a figure that is just 38 per cent in the private sector (OECD, 1999). Given the steep path of Ireland's wage growth, there is a real concern that future retirees will be in a position to maintain the living standards achieved in their late working life. Relatively austere state pensions, however, have led to relatively large pension funds (as a share of the economy). For 1996 the OECD (1998) reports that Irish pension funds amounted to 45 per cent of GDP. This compares with less than 6 per cent in France and Germany and 3 per cent in Italy. All three countries have generous earnings-related systems. Countries with less generous earnings-related systems have accumulated larger pension funds as a share of GDP: 87.3 per cent in the Netherlands, 74.5 per cent in the United Kingdom, and 58.2 per cent in the United States.

[27] By making workers better-off for given number of hours worked, the increase in income may be an incentive to reduce hours worked while retaining a similar or slightly higher income than before.

[28] The Irish population will also get significantly older over the next half century, though the ageing is delayed relative to most of our European partners. Now under 20 per cent, the share of over 64s to the share of people between 16 and 64 is projected to rise to more than 50 per cent by mid-century. The relatively low Exchequer cost of state pensions combined with a more delayed population ageing means that Ireland faces a less daunting pension financing problems than many of our EMU partners. Prompted by a report from the Pensions Board (1998), the Minister for Finance has nevertheless taken the foresighted decision to make an annual set aside of 1 per cent of GDP (along with £2.417 billion of the proceeds of the state telecom business) for future pension obligations. The money is being held pending legislation for a permanent, centrally managed fund. Although this is praiseworthy, an opportunity is being missed to leverage government pension pre-funding to achieve wage restraint.

These longer-term issues cannot be ignored in the design of pension policy. In the context of this paper, however, it the short-term macroeconomic management role of pensions policy that is most relevant. The three policy approaches could be used to provide deferred compensation in lieu of tax cuts and in return for wage restraint. Of the three, however, tax incentives for saving is probably the least amenable to inclusion in social partnership negotiations for the obvious reason that it is a tax break for capital income, not labour income. Although capital income will account for an increasing share of total income for a large fraction of the population, after-tax wage incomes are at the core of the social partnership agreements.

4.7 Abandon the Programme for Prosperity and Fairness

Social partnership agreements have evident drawbacks. They lead to rigid wage relativities across sectors, and thus impede the allocation of labour. The ability of non-elected social partners to influence government policy – notably fiscal policy – is also troubling (see Lane 1999). Nevertheless, the sequence of agreements appear to have made an important contribution to the Irish economy's recent success, and there is a good deal of risk in abandoning them to a more decentralised wage-setting process, especially in circumstances where wage and price setters are beginning to expect high inflation.

At the risk of oversimplification, it is useful to contrast Irish wage setting with and without centralised agreements. Under industry wage bargaining between unions and businesses, wage-setters pushed for wages without regard to their overall impact on the economy, and businesses passed on their cost increases in the form of higher prices. Even at moderately high unemployment rates a price-wage spiral tended to develop. To prevent rising inflation unemployment had to be high enough to make workers fearful enough of job loss to curb their wage demands, and market conditions had to be depressed enough to induce businesses to curb their mark-ups. Having an emigration option probably made workers even less likely to settle for lower wages at any given unemployment rate, and may explain the weak relationship between wages and unemployment in Irish data (see Fitz Gerald, 1999, and Walsh, 1999), at least until recently. The result was that under industry-level bargaining only a depressed economy was consistent with price stability.[29]

Under social partnership agreements the effects of wage settlements on the overall level of activity in the economy is directly taken into account. The formula also allowed the government to exchange reductions in the tax burden for wage restraint. Thus the agreements improved the potential for non-inflationary growth and provided a timely boost to demand. As argued already, however, the formula is less well suited to an economy that needs both demand and wage restraint.

[29] Calmfors and Driffill (1988) provide the classic treatment of how bargaining arrangements can affect macroeconomic performance. An important finding is that highly centralised and highly decentralised arrangements are consistent with good performance. Intermediate arrangements, such as industry-level bargaining, are associated with high equilibrium unemployment rates. The success of Irish social partnership since 1987 would challenge this finding. The partnership agreements in Ireland have been much wider than just wage bargaining mechanisms, encompassing of a wide array of economic actors and the inclusion of items that concerned them. See O'Donnell (1999) and Hardiman (2000) for excellent accounts of the Irish social partnership experience in an international context.

Another argument for abandoning social partnership agreements is that wage increases in the private sector are now running well above the terms of the PPF. Put differently, a good case can be made that the PPF is becoming increasingly irrelevant. Nonetheless, the agreement is binding in some sectors (notably the public sector), and it probably provides some restraining influence even in sectors in which "wage drift" is taking place. If the negotiations could be extended to include deferred compensation elements such as pension bonds or contributions to individual retirement saving accounts, they might help to tame the price-wage cycle. Even if the social partnership process is beginning to outlive its usefulness, it seems foolhardy to abandon it when wage restraint is most needed.

4.8 Allow a once-off special increase in wages under the PPF

One of the most controversial suggestions for stunting the price-wage spiral has been to renegotiate the PPF to allow for a substantial one-time wage increase. The prime motivation for such a proposal, however, is that the private and public sector wage drift is making it harder for sectors adhering to the terms of the agreement to retain and attract talented staff. This is clearly true in a number of sub-sectors of the public service – with nursing being a very visible example. The hope is that if proper market relativities were restored the pressure to abandon the PPF would ease.

Of course the government cannot allow a haemorrhaging of skilled personnel from the public sector to continue. Nevertheless, a substantial one-time increase in wages would almost certainly worsen inflation pressures. Increasing public sector wages would further add to an already expansionary fiscal policy stance, increasing demand, and fueling the spiral in the private sector. There would also be pressure on private sector firms that are not adhering to the terms of the PPF to increase wages to maintain their attractiveness in a tight labour market.

As with the argument for increased capital spending, and indeed the argument for labour income tax cuts, there is a strong microeconomic efficiency rationale for the allowing a one-time upward adjustment in wages. But it is hard to make a case that this policy is a means of controlling inflation. So again there is a trade off. The point on this trade off that we choose will depend, in part, on how dangerous we perceive rising relative inflation to be.

5. Concluding Comments

The paper began by noting the recent sharp rise in Irish inflation, and by asking if it matters. The disastrous experience across the OECD with high inflation in the 1970s, and the economic costs of reducing it in the 1980s, has conditioned economists, policy-makers, and the public to fear its rise.[30] The poor performance of the Irish economy in the 1980s has also made us sensitive to any suggestion of deteriorating cost competitiveness. It is thus disconcerting when we hear that inflation is natural in an economy experiencing rapid foreign investment led growth, and that Ireland's

[30] Of course, the main reason the public dislikes inflation is that it erodes their living standards, and not that it threatens economic growth. Although this can be true in the short run, witness the recent decline in the purchasing power of social welfare payments, history shows nominal wages and other incomes tend to rise at least as fast as inflation over the longer term.

competitive advantage is robust enough to shrug off a period of rising relative costs.

We hope this confidence turns out to be well placed. It is hard, however, to share the confidence that Ireland's competitive advantage can withstand a damaging inflationary spiral. The lessons about how hard it is to get inflation down once it has risen – whatever the initial cause – have been too easily forgotten, as has the frequency with which even economies experiencing strong underlying supply growth can go from overheating to recession. The argument is not about whether the Irish economy is experiencing exceptional growth in its underlying supply (and demand) potential. That much can be taken for granted. The issue is whether allowing growth to move even a couple of percentage points beyond the rate consistent with stable inflation imprudently will put this achievement at risk.

This paper thus urged that efforts be made to dampen the price-wage spiral. The trouble is that many of the policies that have been suggested are useless or worse as inflation management tools, though some have other merits. Some of the options discussed have a better chance of helping – such as proposals for government financed deferred compensation through retirement accounts and the elimination of competition reducing regulations; but these policies face political opposition and are not panaceas. There is also the question of time: policies such as deferred compensation arrangements will take time to establish.[31] At the very least, the government must not in the coming months pursue policies, such as tax cuts beyond the terms of the partnership agreement, that further fuel the spiral.

[31] Even though they would take time to establish, a credible commitment to such an approach could have an immediate impact on wage negotiations.

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