● ● ● BULLETIN
OF E.U. AND U.S INFLATION AND MACROECONOMIC ANALYSIS

"Inflation in 2002 in the EMU behaved basically as forecast"

YEAR-ON-YEAR RATES OF TOTAL INFLATION IN THE EMU

Observed Values — Sept. 01 (Last obs.) — Dec. 01 (Last obs.)
Oct. 02 (Last obs.) — Dec. 02 (Last obs.)

Source: EUROSTAT & IFL   Date: January 24 / 2003
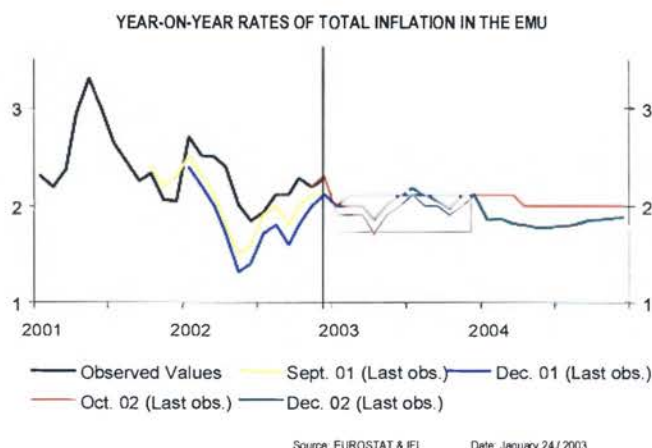
Causal Analysis Of Inflation In The EMU

In Section 1.9 it is shown that the strong upwards pressure on inflation derived from the Monetary Policy implemented by the ECB is compensated by the downwards pressure derived from the output gap and unit labour cost trends........

Contents

Nº100

CAJA MADRID

Universidad Carlos III de Madrid

CONSEJERÍA DE ECONOMÍA E INNOVACIÓN TECNOLÓGICA
Comunidad de Madrid

● ● ● BULLETIN
OF E.U. AND U.S INFLATION
AND MACROECONOMIC ANALYSIS

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● ● ● BULLETIN
OF E.U. AND U.S INFLATION
AND MACROECONOMIC ANALYSIS

TERMINOLOGY USED:

In inflation analysis it is advisable to break down a consumer price index for a country or an economic area in price indexes corresponding to homogenous markets. An initial basic breakdown used in this publication is 1) Non-processed Food price index (ANE) 2) Energy price index (ENE), 3) Processed Food (AE), 4) Other commodities (MAN), 5) Other services (SERV). The first two are more volatile than the others, and in Espasa et al. (1987) a **core inflation** measure exclusively based on the latter ones was proposed; the Spanish Statistical Institute and Eurostat proceed in the same way. Later, in the BULLETIN EU & US INFLATION AND MACROECONOMIC ANALYSIS was proposed to eliminate from components of core inflation those indexes which are excessively volatile. Thus, the previous basic breakdown has been amplified in the following manner: a) ANE, b) ENE, c) Tobacco, Oils and Fats, and Tourist Packages, d) Processed Foods excluding Tobacco, Oils and Fats, (AEX).ge) Other Goods (MAN), and f) Other ervices, excluding Tourist Packages (SERT). The measure of inflation obtained with the AEX, MAN, and SERVT indexes we term **trend inflation**, as an alternative indicator similar to core inflation, but termed trend inflation to indicate a slightly different construction. The measure of inflation established with the price indexes excluded from the CPI to calculate trend inflation or core inflation, depending on the case, is termed **residual inflation**.

For the United States the breakdown by markets is principally based on four components: Food, Energy, Services, and Commodities. **Trend inflation** or **core inflation** is based in this case as the aggregation of services and non-energy commodities.

I. MAIN POINTS AND NEW RESULTS

I.1. MONETARY AND EUROPEAN UNIONS

❑ The January month-on-month inflation rate in the EMU is forecast at a value of 0.2%. The corresponding year-on-year rate will decrease to 2.0%, compared to the 2.3% observed in December (graph R1).

❑ The month-on-month rate registered in December was 0.18%, slightly less than the expected rate of 0.25%. In core inflation, the slight downward innovation was due to non-energy industrial goods and services prices. Residual inflation registered a strong downward innovation due to the prices of non-processed food. The economic crisis seems to have affected the seasonal increase this December, compared to previous years, (tables R1 and A2 in the appendix).

Table R1
OBSERVED VALUES AND FORECASTS IN THE MONTHLY RATE OF GROWTH IN THE COMPONENTS OF THE HICP IN THE EMU

| Harmonized Indices of Consumer Prices	Observed growth December 2002	Forecast	Confidence interval at 80%
Total Inflation (100%)	0.18	0.25	± 0.09
Core inflation (83,25%)	0.09	0.14	± 0.08
Residual inflation (16.75%)	0.34	0.82	± 0.39

(*) Al 80% de significación
Source : EUROSTAT & IFL / Date: January 22/ 2003.

❑ The expectations for the average annual rate of **core inflation** in the EMU remain at 2.1% in 2003 and 2004 (graph R1), compared to the 2.5% observed in 2002. In order to obtain a homogeneous measure of core inflation in the EMU and the USA, we have excluded the prices of processed food from the usual measure of core inflation in the EMU. The expectations for the average rate of growth of this homogeneous core inflation measure in the EMU are also 2.1% in 2003 and 2004, compared to the 2.4% observed in 2002; the mean annual rate of this homogeneous core inflation in the USA is expected to reach 1.4% in 2003 and 1.5% in 2004, due to the improved evolution expected in non-energy industrial goods prices.

Graph R1
YEAR-ON-YEAR RATES OF CORE AND TOTAL INFLATION IN THE EMU
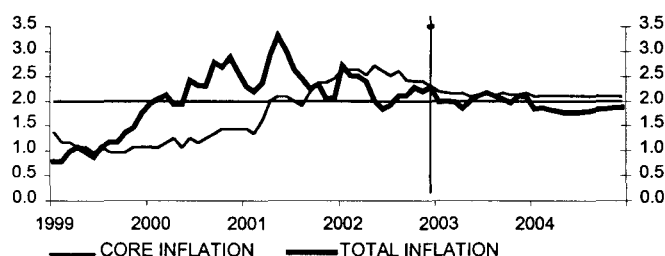
Source: EUROSTAT & INSTITUTO FLORES DE LEMUS
Date: January 24/ 2003

❑ The differential between core inflation in goods and services decreased to 1.4 percentage points in December, and it is expected to decrease to 1.2 in 2003 and to 1.1% in 2004. The average annual rates of prices of non-energy processed goods are forecast at 1.6% for 2003 and 2004. In the services market the expectations for the average annual rates are 2.8% in 2003 and 2.7% in 2004 (table R2).

❑ The incorporation of sales prices in different EMU countries led to a variable evolution of non-energy industrial goods prices, the month-on-month rate of inflation for which will go from 1.1% in March 2003 to a negative value of 1.2% in July. Consequently, the evolution of core inflation will also show important variations, from 0.5% in March 2003 to a negative value of 0.1% in July.

❑ As shown in the autumn report of the European Forecasting Network, rounding effects related to the introduction of the euro could have increased food and service prices, with a global impact on the year-on-year core inflation rate of around three tenths of a percentage point.

❑ The forecast average annual **total inflation** rate for 2003 remains at 2.0% and will fall to 1.8% in 2004, (see table R2).

❑ The erratic evolution of energy prices (see graph R2) also leads to variations in total inflation evolution, which from the 1.8% expected in April 2003, is now expected to increase to 2.2% in July and fall to around 2.1% in December. The probability of reaching this target in 2003 is just 50%, with less likelihood of core inflation not remaining in excess of 2%.

❑ The inflation differential of the European Monetary Union with the United States has systematically been a percentage point in favour of the EMU, as can be observed in graph R3. The year-on-year rate of growth in December in the USA was 2.4%, above the corresponding rate in the EMU, 2,3%, as was foreseen (graph R3). It is expected that in 2003 and 2004, inflation in the EMU will again be lower than in the USA. If owner's

Graph R2

YEAR-ON-YEAR RATES OF RESIDUAL AND ENERGY INFLATION IN THE EMU

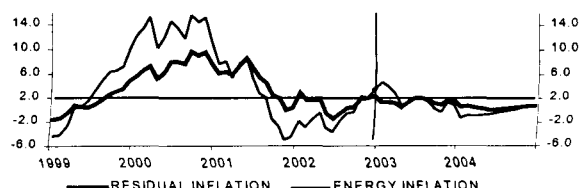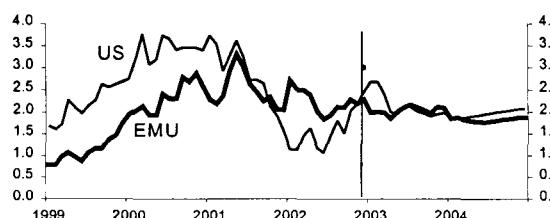Source: EUROSTAT & INSTITUTO FLORES DE LEMUS
Date: January 24/2003

equivalent rents are excluded from total inflation in the USA in order to obtain a homogenous measure of total inflation in the EMU and in the USA, we would expect this homogeneous measure of total USA inflation to perform better.

❑ This differential is favourable for the EMU in services, and for the USA in goods. The performance of non-energy industrial goods prices, excluding tobacco in the US, is noticeably different, with expectations for the

Graph R3

YEAR-ON-YEAR RATES OF TOTAL INFLATION IN THE EMU AND THE USA

Source: BLS, EUROSTAT & IFL
Date: January 24/2003

average annual rate in the US falling to -1.4% in 2003 and −1.1% in 2004; and rates of 1.2% in 2003 and 1.3% in 2004 for the EMU, showing a lower level of technological implantation in the EMU.

❑ This Bulletin number 100 includes a new section about causality analysis of inflation, obtained by relating the inflation forecasts derived from the Bulletin with those derived from a macroeconometric model proposed by Dreger (2002). The results show that the strong upwards pressure on inflation derived from the monetary policy implemented by the ECB is compensated by the downwards pressure derived from the output gap and unit labour cost trends. Therefore, in these economic conditions, it appears that in the short-term, the ECB will have scope to maintain interest rates or reduce them even further.

Table R2

FORECASTS FOR THE MEAN ANNUAL RATES IN THE HICP OF THE EMU

Harmonised Indices of Consumer Prices (HICP)	2000*	2001*	2002*	Averages	
				2003	2004
TOTAL INFLATION (100%)	3.4	3.6	2.2	2.0	1.8
CORE INFLATION (83,25%)	2.5	3.5	2.5	2.1	2.1
Non energy processed goods HICP (44,35%)	1.9	3.1	1.9	1.6	1.6
Services HICP (38,90%)	3.5	4.1	3.2	2.8	2.7
RESIDUAL INFLATION (16.75%)	6.5	3.7	1.0	1.4	0.4
Non Processed Food HICP(8.11%)	4.2	8.7	3.0	1.1	1.2
Energy HICP (8.64%)	13.3	-1.0	-0.7	1.8	-0.3

* Observed Values
(1) Monthly and annual rates can be found in tables A5A and A5B in the appendix.

Source: Eurostat & IFL / Date: January 24, 2003

	Annual Averages Growths			
	2001	2002	Forecasts BIAM (*)	
			2003	2004
GDP p m	1.5	0.8	1.6	2.1
Demand				
Final Consumption	1.9	1.0	1.7	2.0
Capital Investment	-0.7	-2.9	0.1	1.5
Domestic Demand	0.9	0.2	1.4	1.9
Exports of Goods and Services	2.8	1.3	6.0	6.2
Imports of Goods and Services	1.4	-0.2	5.6	5.9
Supply				
Gross Value Added Total (market prices)	1.5	0.8	1.6	2.2
Net Taxes	-3.4	-1.4	0.1	0.9
Gross Value Added Total (basic prices)	1.7	0.9	1.7	2.2
Gross Value Added Agriculture	-1.2	-1.4	1.7	-0.5
Gross Value Added Industry	1.0	0.1	2.2	3.1
Gross Value Added Construction	-0.6	-1.6	-0.3	0.4
Gross Value Added Services	2.3	1.4	1.8	2.2
Prices				
CPI harmonized, annual average	2.6	2.2	2.0	1.8
CPI harmonized, dec./dec.	2.1	2.3	2.1	1.9
Employment				
Unemployment rate	8.1	8.3	8.1	7.9
Others Economic Indicators				
Production Index of Industry (excluding construction)	-0.1	0.4	1.6	2.8

Source: EUROSTAT & I. FLORES DE LEMUS
Date: January, 27 of 2002.

(*) Boletín Inflación y Análisis Macroeconómico

❏ For **January** the forecast for the general index is an increase of 0.48%, based on energy prices and due to growing crude oil prices on the international markets. An increase of 2.59% is expected for the energy index, with a 0.27% increase in core inflation. The annual CPI rate would then go from 2.38% to 2.64%.

❏ During **December** the US CPI fell 0.22% from the previous month's figure, somewhat more than expected: 0.14%, with the annual rate going from the 2.20% observed in November to 2.38%. This increase in the annual rate is due in its entirety to energy prices, the monthly rate of which has fallen 1.60%, whereas in December 2001, it fell to 3.97%. Although the general CPI and all the groups have performed as predicted, there has been a new fall in durable goods, for the second consecutive month, on this occasion due to new motor vehicles, which have decreased their annual rate from −1.54% to −2.02%. We also highlight the good performance of real home rentals, the annual rate of which has fallen from 3.32% to 3.11% (see **Table R3** and details).

Table R3

OBSERVED VALUES AND FORECAST ON CONSUMER PRICE FIGURES IN US

-December 2002-

CONSUMER PRICES INDEX (CPI)	Monthly Growth (T¹₁)		Confidence Intervals at 80% level (+ -)
	observed (a)	forecasts (b)	
Residual inflation	-0.32	-0.12	0.56
Core inflation	-0.21	-0.14	0.09
All items	-0.22	-0.14	0.15

Source: BLS & INSTITUTO FLORES DE LEMUS
Data: January 16, 2003

❏ Core inflation fell by 0.21% from the previous month, instead of the 0.14% expected, with the annual rate going from 1.97% to 1.92%. Core inflation excluding owner's equivalent rent of primary residence and tobacco, comparable with the underlying rate in Europe, fell 0.41% instead of the 0.31% expected, with the annual rate going from 1.38% to 1.24% (see **Graph R5**).

❏ By components, the index for commodities less food and energy without tobacco fell 0.82% instead of the 0.66% expected, with the annual rate going from −1.87% to −1.96%. Durable goods prices declined 0.25% as opposed to the forecast -0.03%, with the annual rate going from −2.98% to −3.30%. The index for new cars increased for the third consecutive month, as opposed to the continuous decreases recorded since January. However, they have decreased their annual rate from −1.54% to −2.02% (see **Graph R4**). Within durable goods, the annual rate of the used car index did not vary from the previous month (-5.5%). Non-durable goods prices excluding the index for tobacco decreased by 1.41%, as expected (-1.35%)

❏ The index for services did not vary from the previous month as opposed to the 0.06% increase forecast. The annual rate has fallen by 1.4 tenths from 3.53% to 3.39%. The index for services excluding owner's equivalent rent of primary residence, fell 0.18% instead of the 0.07% expected, with the annual rate going from 3.62% to 3.43%. The indexes for rent of primary residence and medical services have performed better than expected.

Graph R4
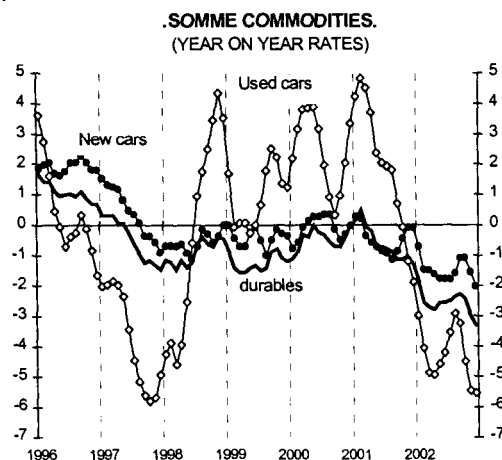
.SOMME COMMODITIES.
(YEAR ON YEAR RATES)
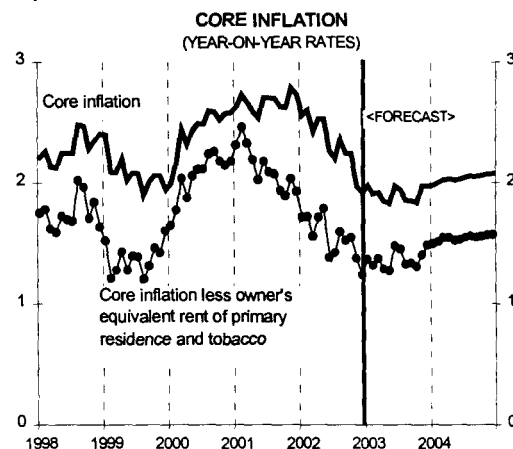
Source: IFL & BLS / Date: January 16, 2003

Graph R5

CORE INFLATION
(YEAR-ON-YEAR RATES)

Source: IFL & BLS / Date: January 16, 2003

For **2003** and **2004** mean total inflation rates of 2.05% and 1.78% respectively are expected, which compared with last month's forecast represents an improvement of one and two decimal points, respectively. In this case, the evolution of crude oil prices, expected to worsen, compensates the new prediction for core inflation. In no case have we contemplated the hypothesis of a war in Iraq. Core inflation in the US excluding the index for owner's equivalent rent of primary residence and tobacco, which would be equivalent to core inflation in the EMU and Spain, is expected to accelerate slightly in the coming months to rates of under 1.6%, from the current 1.24%, as opposed to the slow-down registered during the last 20 months (see **Table R4** and **Graph R6**).

Graph R6

GLOBAL CPI
(YEAR-ON-YEAR RATES)
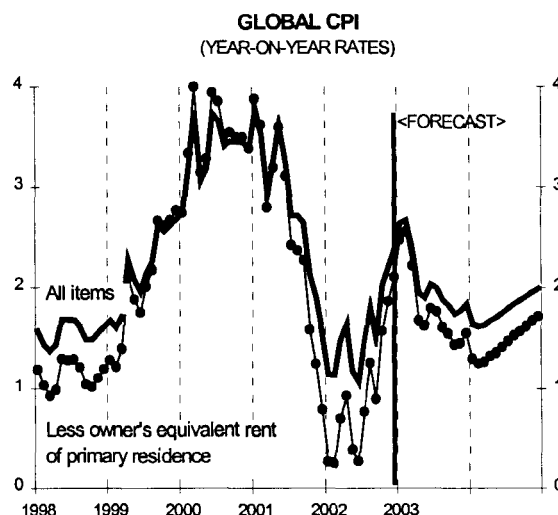
Source: IFL & BLS / Date: January 16, 2003

Table R4

AVERAGE ANNUAL RATE OF GROWTH IN US

CONSUMER PRICES INDEX (CPI)	1999	2000	2001	2002	2003 (forecasts)	2004 (forecasts)
Food (1)	2.1	2.3	3.1	1.8	2.1	2.6
Energy (2)	3.6	16.9	3.8	-5.9	3.7	-2.8
Residual Inflation (3=2+1)	**0.8**	**6.8**	**3.3**	**-0.9**	**2.6**	**0.8**
Non-food and non-energy goods (4)	0.7	0.5	0.3	-1.1	-1.0	-0.6
Less tabacco	-0.5	-0.1	-0.2	-1.5	-1.4	-1.1
-Durable Goods	-1.2	-0.5	-0.6	-2.6	-2.5	-2.1
-Nondurable goods	2.4	1.4	1.1	0.5	0.5	0.8
Non-energy services (5)	2.7	3.3	3.7	3.8	3.1	3.1
-Services less owner's equivalent rent of primary residence (5-a)	2.7	3.5	3.6	3.6	3.2	3.2
-Owner's equivalent rent of primary residence (a)	2.7	3.0	3.8	4.1	2.9	2.9
Core Inflation (6=4+5)	**2.1**	**2.4**	**2.7**	**2.3**	**1.9**	**2.0**
Core inflation less owner's equivalent rent of primary residence (6-a)	1.8	2.2	2.3	1.7	1.5	1.7
Core inflation less owner's equivalent rent of primary residence and tobacco	1.4	2.1	2.1	1.6	1.4	1.5
All items (7=6+3)	**2.2**	**3.4**	**2.8**	**1.6**	**2.1**	**1.8**
All items less owner's equivalent rent of primary residence (7-a)	2.1	3.5	2.6	0.9	1.8	1.5

Source: **BLS & INSTITUTO FLORES DE LEMUS**
Data: January 16, 2003

❑ The month-on-month inflation rate in January is expected to have a negative value of 0.1%. The year-on-year rate will remain at 4%, the same observed last December, (graph R6).

❑ The month-on-month rate observed in December, a value of 0.33%, increased more than was forecast, 0.20%. The upward innovation came in trend inflation in goods, concretely derived from prices of non-energy industrial goods, which fell less than expected (table R5).

❑ **Trend inflation** in December remained at the 3.4% registered since October. Most components in trend inflation in services showed annual rates near to 5% or more, for example prices of transport, postal services, universities, restaurants, hotels, housing and medicine services. Trend inflation in food in December remained at the 2.8% registered in November. Taking prices of non-energy industrial goods into account, the year-on-year rate decreased to 2.7% in December compared to the 2.8% registered in November, and the mean annual rate is expected to fall to 2.0% in 2003 and increase to 2.3% in 2004. Nevertheless, there is an important differential with the EMU, with annual average rates of 1.2 % in 2003 and 1.3% in 2004; and above all with the USA, with negative annual average rates of 1.4% and 1.1%, respectively, reflecting less technology incorporation in Spain and the EMU.

Table R5
OBSERVED VALUES AND FORECASTS IN THE MONTHLY RATE OF GROWTH IN THE COMPONENTS OF THE CPI IN SPAIN

Consumer Price Index (CPI)	Observed growth December 2002	Forecast	Confidence interval at 80%
Total Inflation(100%)	0.33	0.20	± 0.15
Trend inflation (77,23%)	0.09	-0.23	± 0.13
Residual Inflation (22,77%)	1.18	1.68	± 0.22

(*) Al 80% de significación
Source : INE & IFL / Date: January 14, 2003.

Table R6
FORECASTS FOR THE MEAN ANNUAL RATES OF GROWTH IN THE CPI IN SPAIN

Consumer Prices Index (CPI)	2000*	2001*	2002*	Forecasts	
				2003	2004
TOTAL INFLATION (100%)	3.4	3.6	3.5	3.2	3.1
TREND INFLATION (77.23%)	2.5	3.5	3.4	3.1	3.3
Non energy processed goods, excluding tobacco, oils and fats CPI (44.28%)	1.9	3.1	2.6	2.3	2.5
Services excluding tourism CPI (32,95%)	3.5	4.1	4.3	4.3	4.4
RESIDUAL INFLATION (22.77%)	6.5	3.7	3.3	3.7	2.5
Non processed food CPI (9.07%)	4.2	8.7	5.6	4.8	4.9
Energy CPI (9.41%)	13.3	-1.0	-0.2	1.7	-0.6

* Observed Values
• Monthly and annual rates can be found in tables A7A and A7B in the appendix
 Source: INE & .IFL / Date: January 20 / 2003

❑ Trend inflation is expected to fall to 3.2% in January, compared to the 3.4% observed since October, as the result of a better expected evolution in non-energy industrial goods prices. The mean annual rate will decrease to 3.1% in 2003, and increase to 3.3% in 2004 as a result of the worse performance of growth rates in prices of non-energy processed goods, excluding fats, oils and tobacco and in prices of services excluding tourist packages (table R6, graph R7).

AVERAGE RATES OF GROWTH OF TOTAL INFLATION, TREND AND RESIDUAL INFLATION IN SPAIN

(%)

Source: INE & IFL / Date: january 20/ 2003
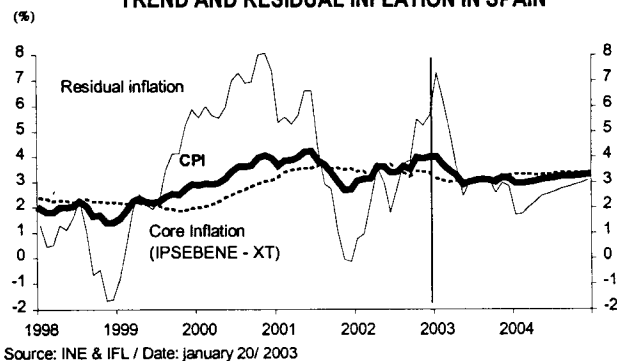
□ Core inflation in the EMU decreased to 2.3% in December, compared to the 2.4% registered since September, and the expectations for the average annual rate for core inflation are 2.1% in 2003 and 2004, so there is still a consolidated inflation differential between Spain and the EMU of around one percentage point.

□ With regards to **residual inflation,** the forecast for the average annual rates of inflation of prices of non-processed food are updated downwards to 4.8% for 2003 and 4.9% in 2004, compared to the 5.6% observed in 2002.

□ Considering the new expectations for crude oil prices, the year-on-year rate of energy prices in *January 2003 will reach a value of 5.4%, compared to the negative value of 2.9% observed in* January 2002. Average annual rates of growth are forecast to increase to 1.7% in 2003 and fall to –0.6% in 2004.

□ Due to energy and non-processed food price fluctuations, a more erratic evolution of commodities prices due to the incorporation of sales prices, and the especially worrisome evolution in services, with a weight of 33% and expected annual rates of growth at the end of 2003 and 2004 around 4.6%, the year-on-year rate of growth of **total inflation** will fluctuate significantly. From the 4.0% expected in January 2003, it will fall to 2.9% in May, and increase again to 3.2% in November and December.

Graph R8

ANNUAL RATES OF TOTAL INFLATION IN SPAIN

Source: INE & IFL / Date: january 20/ 2002
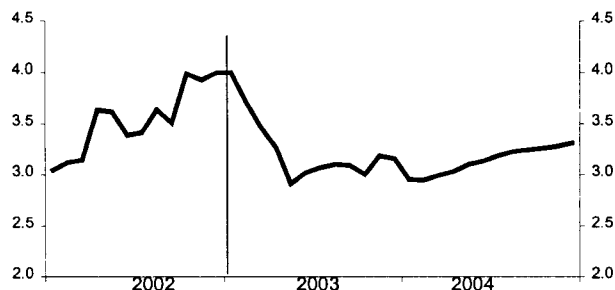
□ Average annual rates of growth will remain at 3.2% in 2003 and 3.1% in 2004 (table R6 and graph R8).

MACROECONOMIC TABLE AND INDICATORS (*)				
	Annual Rates			
	2001	**2002**	**Forecasts BIMA (*)**	
			2003	**2004**
Private Final Consumption Expenditure	2.7	2.0	2.5	3.1
Public Final Consumption Expenditure	3.1	3.4	3.2	3.2
Gross Fixed Capital Formation	2.5	1.6	3.4	3.7
Equipment	-2.2	-3.9	3.4	6.2
Building	5.7	4.6	3.6	2.5
Other products	0.8	1.5	2.2	3.3
Inventory change (1)	0.1	0.0	0.0	0.0
Domestic Demand	2.8	1.8	2.9	3.3
Exports of Goods and Services	3.4	0.2	4.9	5.7
Imports of Goods and Services	3.7	-0.1	5.4	6.3
Net Exports (1)	-0.1	0.1	-0.3	-0.3
GDP	**2.8**	**1.9**	**2.6**	**3.1**
GDP, current prices	6.5	5.5	5.8	6.3
Prices and Costs				
CPI, annual average	3.6	3.5	3.2	3.1
CPI, dec./dec.	2.7	4.0	3.2	3.3
Average earning per worker	4.1	3.8	3.7	3.5
Unit labour cost	3.8	3.1	2.6	2.8
Labour Market (Data poll labour force)				
Labour Force (% variation)	2.0	3.0	2.6	1.8
Employment:				
Data adjusted from changes in the employment survey				
Annual average variation in %	3.7	1.9	2.1	2.2
Annual average variation in thousands	575.9	298.0	337.5	364.8
Unemployment rate	10.6	11.4	11.1	10.5
Basic balances				
Foreing sector				
Current Account (m. €.)	-18.564	-16.014	-19.438	-21.317
Net lending or borrowing (% GDP) (2)	-2.0	-1.6	-2.0	-2.2
AA.PP. (Total) / Public Administration				
Net lending or borrowing (% GDP) (2)	0.0	-0.3	-0.4	-0.3
Other Economic Indicators				
Industrial Production Index	-1.1	0.2	1.3	2.5

(1) Contribución al crecimiento del PIB, en puntos porcentuales.
(2) En términos de Contabilidad Nacional.

Source: INE & I. FLORES DE LEMUS
Date: January 27 / 2003.

(*) Bulletin EU & US Inflation and Macroeconomic Analysis.

INFLATION FORECASTS AND EVOLUTION IN THE EMU AND USA (1998-2004)						Forecasts	
	1998	1999	2000	2001	2002	2003	2004
TOTAL INFLATION							
Euro-zone (100%).	1.1	1.1	2.3	2.5	2.2	**2.0**	**1.8**
USA (81.5%). [1]	1.1	2.1	3.5	2.6	0.9	**1.8**	**1.5**
A HOMOGENEOUS MEASURE OF CORE INFLATION [2]							
Services and Non-energy industrial goods excluding food and tobacco.							
Euro-zone (70.97%).	1.4	1.1	1.3	1.9	2.4	**2.1**	**2.1**
USA (56.4%). [1]	1.8	1.4	2.1	2.1	1.6	**1.4**	**1.5**
DIFFERENT COMPONENTS OF THE HOMOGENEOUS MEASURE OF CORE INFLATION							
(1) Services.							
Euro-zone (38.90%).	1.9	1.5	1.7	2.5	3.2	**2.8**	**2.7**
USA (27.4%). [1]	2.9	2.7	3.5	3.6	3.6	**3.2**	**3.2**
(2) Non-energy industrial goods excluding food and tobacco.							
Euro-zone (32.07%).	0.9	0.7	0.7	1.1	1.5	**1.2**	**1.3**
USA (29.0%).	-0.1	-0.5	-0.1	-0.2	-1.5	**-1.4**	**-1.1**
INFLATION IN EXCLUDED COMPONENTS FROM THE HOMOGENEOUS MEASURE OF CORE INFLATION							
(1) Food.							
Euro-zone (20.39%).	1.6	0.6	1.3	4.5	3.0	**2.0**	**1.8**
USA (14.9%).	2.2	2.1	2.3	3.1	1.8	**2.1**	**2.6**
(2) Energy.							
Euro-zone (8.64%).	-2.6	2.4	13.3	2.7	-07	**1.8**	**-0.3**
USA (9.90%).	-7.7	3.6	16.9	3.8	-5.9	**3.7**	**-2.8**

[1] less owner´s equivalent rent of primary residence.
[2] This homogeneous measure of underlying inflation does not coincide with the usual measure of core inflation for the EMU nor for the USA. It has been constructed in order to compare the data in the EMU and in the USA.

Source: EUROSTAT & BLS & IFL.
Date: January 24/2003.

YEAR-ON-YEAR RATES OF INFLATION IN THE EMU AND USA

YEAR-ON-YEAR RATES OF TOTAL INFLATION IN THE EMU AND TOTAL INFATION LESS OWNER'S EQUIVALENT RENT OF PRIMARY RESIDENCE IN USA

———— EMU ——— USA
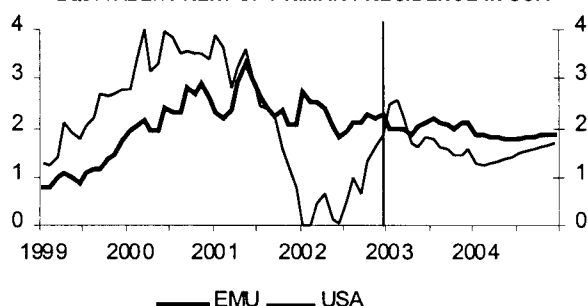
YEAR-ON-YEAR RATES OF HOMOGENEOUS CORE INFLATION IN THE EMU AND THE USA
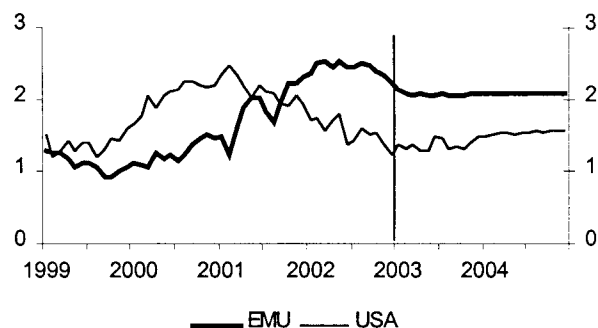
———— EMU ——— USA

YEAR-ON-YEAR RATES OF SERVICES INFLATION IN THE EMU AND THE USA

———— EMU ——— USA
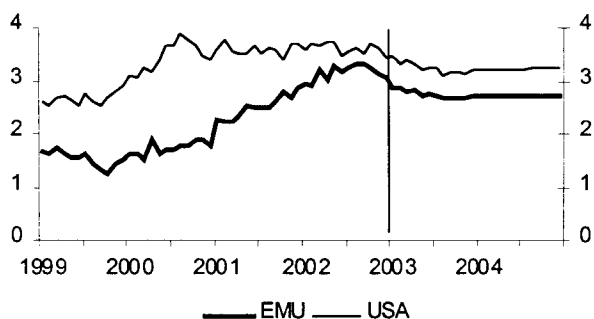
YEAR-ON-YEAR RATES OF NON-ENERGY INDUSTRIAL GOODS INFLATION IN THE EMU AND THE USA (EXCLUDING TOBACCO)

———— EMU ——— USA
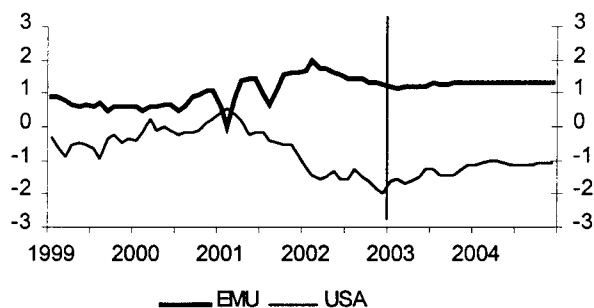
YEAR-ON-YEAR RATES OF FOOD INFLATION IN THE EMU AND THE USA
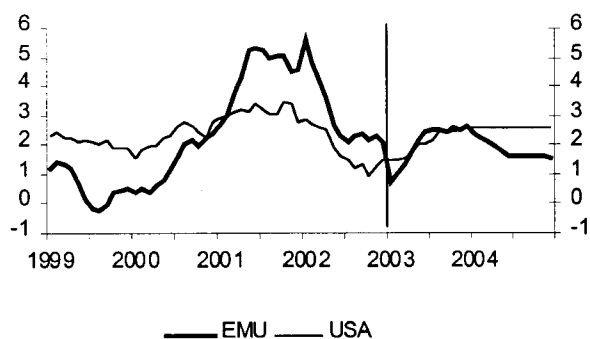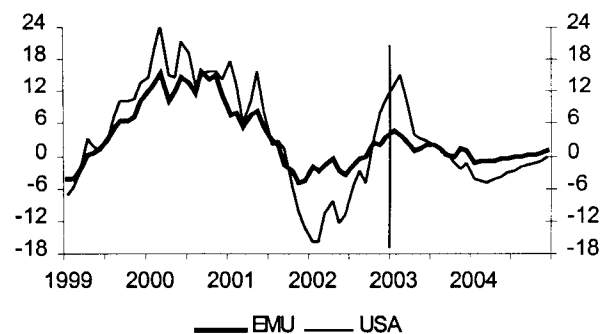
———— EMU ——— USA

YEAR-ON-YEAR RATES OF ENERGY INFLATION IN THE EMU AND THE USA

———— EMU ——— USA

Source: EUROSTAT & BLS & IFL
Date: January 24 / 2003

| INFLATION FORECASTS AND EVOLUTION IN THE EMU AND SPAIN (1998-2004)						Forecasts	
	1998	1999	2000	2001	2002	2003	2004
TOTAL INFLATION							
Spain (100%).	1.8	2.3	3.4	3.6	3.5	**3.2**	**3.1**
Euro-zone (100%).	1.1	1.1	2.3	2.5	2.2	**2.0**	**1.8**
CORE INFLATION							
Services and Non-energy processed goods.							
Spain (81.51%).	2.2	2.3	2.4	3.4	3.8	**3.3**	**3.4**
Euro-zone (83.25%).	1.5	1.1	1.2	2.0	2.5	**2.1**	**2.1**
DIFFERENT COMPONENTS OF CORE INFLATION							
(1) Services.							
Spain (34.10%).	3.6	3.4	3.8	4.2	4.5	**4.5**	**4.6**
Euro-zone (38.90%)	1.9	1.5	1.7	2.5	3.2	**2.8**	**2.7**
(2) Non-energy processed goods.							
Spain (47.41%).	1.4	1.7	1.7	2.9	3.1	**2.3**	**2.4**
Euro-zone (44.35%).	1.1	0.7	0.8	1.6	1.9	**1.6**	**1.6**
INFLATION IN EXCLUDED COMPONENTS FROM CORE INFLATION							
1) Non-processed food.							
Spain (9.07%).	2.1	1.2	4.2	8.7	5.6	**4.8**	**4.9**
Euro-zone (8.11%).	2.0	0.0	1.7	7.0	3.0	**1.1**	**1.2**
(2) Energy.							
Spain (9.41%).	-3.8	3.2	13.3	-1.0	-0.2	**1.7**	**-0.6**
Euro-zone (8.64%).	-2.6	2.4	13.3	2.7	-0.7	**1.8**	**-0.3**

Source: EUROSTAT & BLS & IFL
Datte: January 24 / 2003

YEAR-ON-YEAR RATES OF INFLATION IN THE EMU AND SPAIN

YEAR-ON-YEAR RATES OF TOTAL INFLATION IN THE EMU AND SPAIN

EMU —— Spain

YEAR-ON-YEAR RATES OF SERVICES AND NON-ENERGY PROCESSED GOOS IN THE EMU AND SPAIN

EMU —— Spain

YEAR-ON-YEAR RATES OF SERVICES INFLATION IN THE EMU AND SPAIN

EMU —— Spain
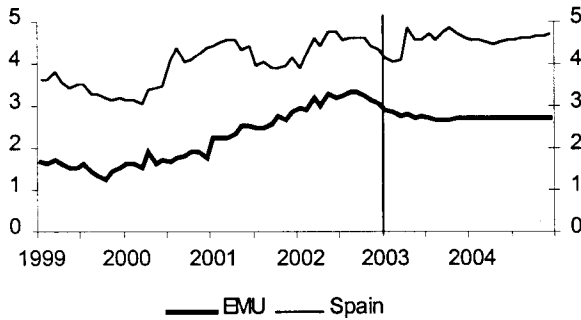
YEAR-ON-YEAR RATES OF NON-ENERGY PROCESSED GOODS INFLATION IN THE EMU AND SPAIN

EMU —— Spain
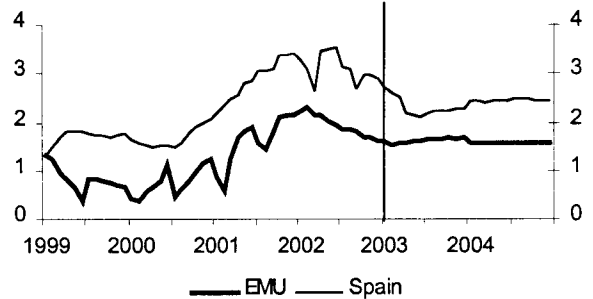
YEAR-ON-YEAR RATES OF NON-PROCESSED FOOD IN THE EMU AND SPAIN

EMU —— Spain
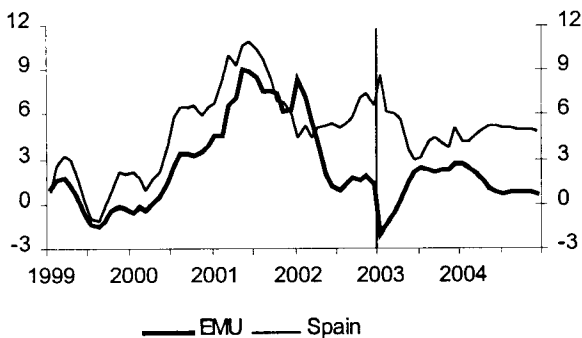
YEAR-ON-YEAR RATES OF ENERGY INFLATION IN THE EMU AND SPAIN

EMU —— Spain
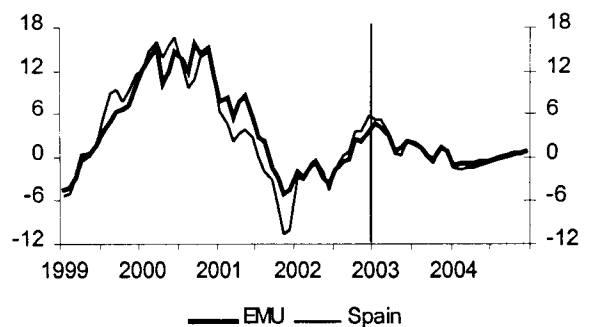
Source: EUROSTAT & INE & IFL
Date: January 24 / 2003

INFLATION FORECASTS OF DIFFERENT INSTITUTIONS[1]										
	BIMA[2]		CONSENSUS FORECASTS[3]		IMF[4]		ECB[5]		OCDE[6]	
	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003
UME	2.0	1.8	1.7	1.7	1.6	-	1.3 - 2.3	1.0 - 2.2	2.2	2.0
EE.UU.	2.1	1.8	2.2	2.3	2.3	-	-	-	1.9	1.8
ESPAÑA	3.2	3.1	3.1	2.7	2.67	-	-	-	3.0	2.8

1. The forecasts are based on CPI in USA and Spain and on HICP in the EMU.
2. Bulletin EU & US Inflation and Macroeconomic Analysis , 24th January 2003.
3. 13th January 2003 .
4. 25th September 2002.
5. Eurosystem staff macroeconomic projections, 4th December 2002.
6. 21st November 2002
7. Based on GDP deflator.

Our forecasts for total inflation in the EMU and Spain are slightly greater than the previsions derived from other institutions because with the methodology applied in our Bulletin, total inflation is breaking down in core and residual inflation. Last one is composed by inflation in non-processed food and energy prices.

The innovations come in different components are transferred in future thorough different multipliers. The innovations derived from residual inflation are less persistent.

Core inflation in the EMU and Spain is expected to be quite stable, around 2.1% in 2003 and 2004 in the EMU and 3.1% in 2003 and 3.3% in 2004, in the case of Spain; this reduction in 2003 is due to the fact that rounding effects will not influence any more the year-on-year rates. Total inflation in 2003 will also be benefit from an expected lower inflation rate in non-processed food prices.

In the previous Bulletins, a recovery in the year-on-year inflation rate was predicted for the end of 2002, mainly due to the worse expected evolution of energy prices. This recovery has in fact taken place, with the year-on-year rate of total inflation reaching a value of 2.3% in December 2002. This year-on-year rate for December 2002 performed slightly better than was expected. The economic crisis seems to have affected the seasonal increase this December, compared to previous years. The average annual rate of growth in 2002 was 2.2%, above the ECB objective.

ANNUAL FORECASTS FOR THE EMU INFLATION
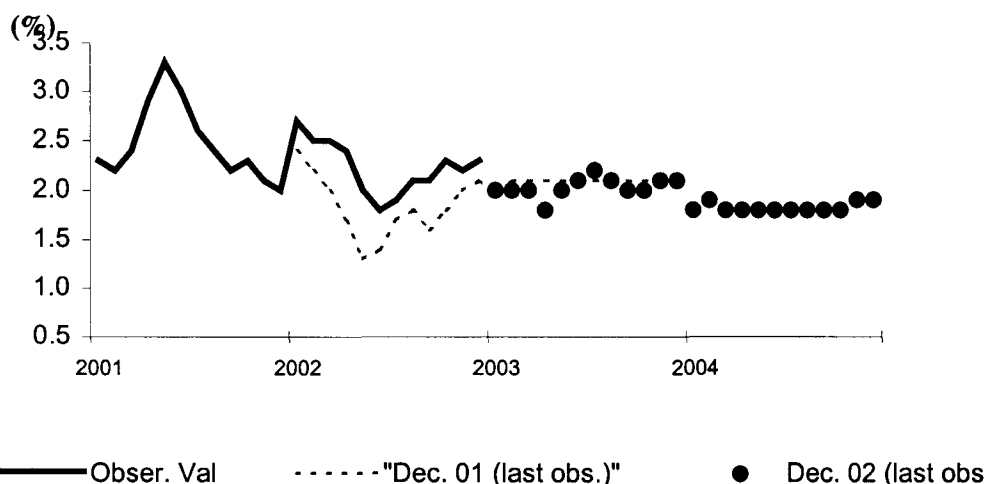
Source: Eurostat & IFL
Date: January 24, 2003.

Inflation forecasts for 2003, performed following the methodology proposed by Espasa et al. (2002), are characterised by core inflation which will continue to show a rather stable year-on-year rate, discounting the drop in January due to the absence of rounding effects in 2003. Thus the average annual core inflation rate is forecast at 2.1% for 2003 and 2004, compared to the 2.5% observed in 2002. Month-on-month rates will fluctuate from a negative value of 0.1% in July to a positive value of 0.5% in March. Since the price of sales were included in the construction of the HICP, the month-on-month rates of both total and core inflation fluctuate more than before.

Total inflation is forecast to fall in January 2003 with a 2.0% value and then to fluctuate around a mean value of 2.0% in 2003 and 1.8% in 2004.

The previous figure shows that forecasts made at different points in time converge to a stable value between 1.8 and 2.1%. This is also found with forecasts made in 1998 and 1999. This is due to the fact that inflation in the euro-area is a stationary variable. Thus the path forecasts necessarily converge to the historical mean that for the quarter-to-quarter rate is 0.48%, once some corrections are made to take changes in indirect taxes, the introduction of sales prices and euro-rounding effects into account. Obviously convergence in inflation is also obtained with econometric models which are basically linear. In those cases, see for example Dreger (2002), if the above level corrections are not included in the model, the path forecasts converge to a quarter-to-quarter rate value of 0.55%.

The above results suggest that the 2% reported in the inflation target should not be considered as an upper bound value, but as a mid value around an ±2σ interval, where σ could be taken as 0.5 percentage points, approximately is the standard deviation in forecasting the EMU year-on-year inflation rate one year in advance.

This new definition of the inflation objective based on a confidence interval instead of a point value agrees that there will be more scope for easing monetary policy.

We obtain the same consideration about monetary policy in the short-term relating the inflation forecasts derived from the Bulletin, based mainly on time series models, with those derived from a macroeconometric model proposed by Dreger (2002). In this macroeconomic model, inflation is explained by deviations from two long run restrictions linking prices in one case with unit labour cost trends and, in another, with money. Other explanatory variables are changes in import prices, output gap, changes in unit labour costs and lagged inflation values. Therefore, we get a causal explanation for our inflation forecasts, and the part of our disaggregated forecasts which is not explained by econometric forecasts can be interpreted as the effect on total inflation due to the heterogeneous inflation situation through markets or the bias in the causal explanation of the econometric model from not considering market-specific effects.

The results of this causality analysis, described in more detail in the following section, show that the strong upwards pressure on inflation derived from the monetary policy implemented by the ECB is compensated by the downwards pressure derived from the output gap and unit labour cost trends. Therefore, in these economic conditions, it appears that in the short-term, the ECB will have scope to maintain interest rates or reduce them even further.

References

Espasa, A, Senra E. & Albacete R. (2002a) "Forecasting EMU inflation: A disaggregated approach by countries and by sectors", The European Journal of Finance, v. 8, pp. 402-421.-

Dreger, C. (2002), "A Macroeconometric model for the Euro area", Institute for Economic Research Halle (IWH), manuscript.

The Bulletin's inflation forecasts are obtained by disaggregating HICP in several components and estimating time series models for each one. These models include additional explanatory variables to take effects such as sales and rounding prices due to the introduction of the euro into account. When forecasting consumer energy prices, international crude oil prices are the leading indicator in a non-linear model. With regards to procedures for directly forecasting the aggregate, the forecasting approach followed in this report incorporates relevant information about different price trends throughout the markets. The procedure employed also has the advantage that it uses all the monthly inflation information available. The disaggregated forecasts identify market differences and provide some clues about the main factors causing inflation.

But this procedure, as it is now implemented, does not include causal economic variables when explaining inflation. In order to obtain a causal explanation for our inflation forecasts we run a simple regression between the above inflation forecasts and those that would be derived from a macroeconomic model. We consider the macroeconomic model proposed by Dreger (2002). Therefore, we obtain a causal explanation for our inflation forecasts, and the part of our disaggregated forecasts which is not explained by econometric forecasts can be interpreted as the effect on total inflation due to the heterogeneous inflation situation through markets or the bias in the causal explanation of the econometric model from not considering market-specific effects.

In the macroeconomic model, inflation is explained by deviations from two long run restrictions linking prices in one case with unit labour cost trends and, in another, with money. Other explanatory variables are changes in import prices, output gap, changes in unit labour costs and lagged inflation values.

CAUSAL INTERPRETATION OF INFLATION FORECASTS

	Average quarter-to-quarter inflation rate (seasonally adjusted)	Contributions to the average inflation rate							
		Constant Term	Changes in import prices	Changes in unit labour cost	Lagged Inflation	Output Gap	Deviations from trend in unit labour costs	Deviation of money from nominal output	Heterogeneous inflation situations through markets
2002(4Q)-2003(4Q)	0.49	0.53	-0.01	-0.01	-0.01	-0.35	-0.62	1.04	-0.08
2003(4Q)-2004(4Q)	0.47	0.53	0	-0.05	-0.01	-0.28	-0.80	1.16	-0.08

The previous table shows that the amount of money relative to output is pushing inflation up, that there are three factors pushing in the opposite direction and that another three have what is now almost an insignificant effect. The heterogeneous inflation situation through markets is favouring lower future inflation rates because even though energy prices will grow faster in 2003 (in the year average) than in 2002, services and food inflation will grow at a slower rate, mainly due to the absence of euro-rounding effects in 2003. The other and more relevant two economic factors acting at present as forces reducing inflation are unit labour cost trends and the output gap. This means that given the expected evolution of unit labour cost trends and the output gap, a slack monetary policy can continue. If the output gap increases or the incorporation of more technology reduces unit labour cost trends, there will be more scope for easing monetary policy, provided that the short-term factors affecting inflation do not change in an adverse way, as expected. It can be concluded that given the above economic conditions, it seems that the ECB will, in the short-run, have scope to maintain interest rates or reduce them even further.

II. ANALYSIS OF INFLATION, MONETARY POLICY AND INTERNATIONAL ANALYSIS

II.1 Monetary and European Unions

In December 2002, inflation in the Monetary Union registered a monthly rate of 0.18%; with a year-on-year rate of 2.3%, compared to the 2.2% registered in November.

Table 1 summarises the discrepancies between observed and forecasted values for the different basic aggregations in the Euro- Zone.

Table 1 OBSERVED AND FORECAST VALUES ON CONSUMER PRICE FIGURES IN THE EMU			
Consumer Price Index (HICP)	**Current growth December 02**	**Forecast**	**Confidence intervals (*)**
(1) Processed Food - AE (12.281%)	0.09	**0.08**	± 0.14
(2) Commodities - MAN (32.072%)	-0.09	**-0.06**	± 0.10
Non-Energy Manufactured Goods - BENE [1+2] (44.353%)	-0.04	**-0.03**	± 0.09
(3) Services - SERV (38.901%)	0.26	**0.32**	± 0.14
Core Inflation:			
Non-Energy Manufactured Goods and Services, (excluding fats, oils, tobacco and tourist packages) - **IPSEBENE [1+2+3] (83.253%)**	**0.09**	0.14	**± 0.08**
Non-Processed Food - ANE (8.109%)	0.52	**1.28**	± 0.46
(5) Energy Goods - ENE (8.638%)	0.34	**0.39**	± 0.60
Residual Inflation:			
Fats, Oils, Tobacco, Tourist Packages, Non-Processed Food and Energy - **R [4+5] (16.747%)**	**0.34**	0.82	**± 0.39**
Total Inflation: HICP [1+2+3+4+5] (100%)	**0.18**	0.25	**± 0.09**

(*) At 80% confidence level
Source: EUROSTAT & INSTITUTO FLORES DE LEMUS / Date: January 22 / 2003.

As shown in table 1, the month-on-month rate registered in December was 0.18%, slightly less than the expected rate of 0.25%. In core inflation, the slight downward innovation was due to non-energy industrial goods and services prices. Residual inflation registered a strong downward innovation due to the prices of non-processed food. The economic crisis seems to have affected the seasonal increase this December, compared to previous years.

It is important to note the existence of rounding errors in the aggregation of different sectors of HICP in the EMU. Eurostat publishes data with one decimal point and apparently they use more decimals in obtaining the aggregate indexes. The question is whether the aggregate values can be exactly reproduced by the users of Eurostat data. For this reason, in the forecast errors tables in the appendix (table A2) the errors in the aggregation are pointed out.

Eurostat has revised the index corresponding to the prices of processed food in November 2002. Therefore, the month-on-month rate and the year-on-year rate for prices of processed food and for processed goods have changed, as can be seen in tables A5A and A5B in the appendix.

The breakdown of the harmonised consumer price index into basic market groups shows that

the prices of processed food (the AE index) registered a monthly growth as was predicted (0.09%). The prices of the remaining processed goods excluding energy prices (the MAN index) decreased slightly more than was forecasted (-0.09% observed instead of –0.06% forecast). With this, core inflation in goods calculated on the basis of the aggregation of the previous indexes, (the BENE index) registered a negative monthly rate of 0.04%, as was foreseen. The services prices (the SERV index) registered a monthly growth of 0.26%, slightly below was forecasted, 0.32%, so that finally core inflation registered a soft downward innovation.

In Residual inflation (non-processed food and energy), the downward innovation came in prices of unprocessed food.

The following graph shows the forecast errors in the monthly rate of total inflation. It is relevant to notice how our forecasts have picked up the oscillating evolution of total inflation in 2002.

HCPI MONTH -ON-MONTH RATES OF GROWTH IN THE EMU

————— Valores observados/ Observed values

▪ ▪ ▪ Predicciones/ Forecast
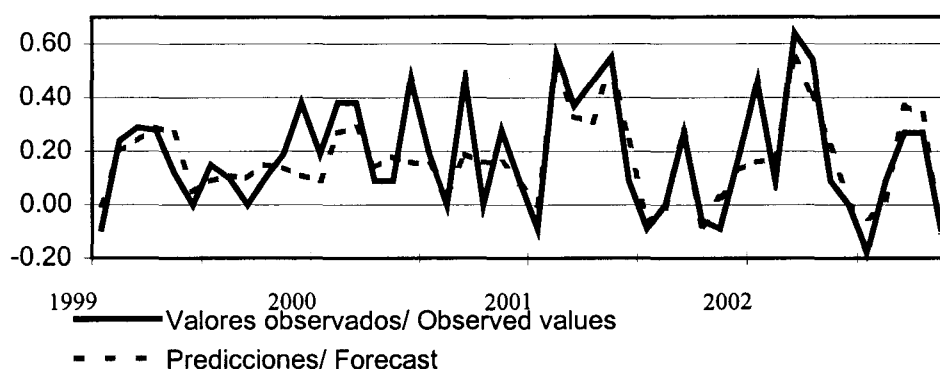
Source: EUROSTAT & IFL
Date: January 22, 2003

Table 2 shows annual observed HICP rates for energy and those corresponding to the remainder of goods and services – denominated HICP excluding energy

Table 2	ANNUAL GROWTH HICP											
	HICP excluding Energy						HICP energy					
	Observed			Forecasts			Observed				Forecasts	
	Dec. 2002	Average 2000	Average 2001	Average 2002	Average 2003	Average 2004	Dec. 2002	Average 2000	Average 2001	Average 2002	Average 2003	Average 2004
Germany	0.9	0.7	1.9	1.5	**1.0**	**1.0**	3.7	14.4	6.4	-0.2	**1.1**	**0.1**
Spain	3.8	2.6	4.0	3.4	**3.4**	**3.5**	5.7	13.3	-1.0	-0.2	**1.7**	**-0.6**
France	2.0	0.8	2.1	2.2	**1.8**	**1.5**	3.6	12.1	-1.5	-1.5	**3.1**	**0.2**
Italy	3.1	1.9	2.4	3.0	**3.1**	**2.9**	0.7	11.6	1.6	-2.6	**3.0**	**0.9**
Monetary Union	2.1	1.3	2.4	2.6	**2.1**	**2.1**	3.6	13.3	2.7	-0.7	**1.8**	**-0.3**

Source: EUROSTAT & INSTITUTO FLORES DE LEMUS / Date: January 29, 2003.

There is an important inflation differential excluding energy among countries. Italy and Spain show a similar behaviour

Year-on-year rates of energy prices are registering positive values in December 2002, as shown in table 2. This relatively homogenous evolution in energy prices contrasts with the different behaviour of the other non-energy prices (HICP excluding energy). For the mentioned non-energy prices, Germany registered in December a year-on-year rate of 0.9%; forecasts

for the annual average rates will be around 1.0% in 2003 and 2004. France registered for the HICP excluding energy a year-on-year rates of 2.0% in December and the forecasts for the annual average rate are 1.8% in 2003 and 1.5% in 2004. On the other hand, observed values in Italy were 3.1% and forecasts are 3.1% in 2003 and 2.9% in 2004. In the case of Spain, the annual rate was 3.8% in December and a mean annual rate of 3.4% is expected in 2003 and 3.5% in 2004. Therefore, in the HICP excluding energy, Germany and France show a similar evolution with annual average rates below 2% on one hand, and on the other, Italy and Spain present greater annual mean rates above 3%.

Table 3											
ANNUAL GROWTH IN ENERGY HICP											
	Fuels						IPCA Elgas				
	Observed				Forecasts		Observed				Forecasts	
	Dec. 2002	Media 2000	Media 2001	Media 2002	Media 2003	Media 2004	Dec. 2002	Media 2000	Media 2001	Media 2002	Media 2003	Media 2004
Germany	9.9	24.4	-0.4	0.1	**3.2**	**-1.0**	-1.4	5.8	13.2	-0.5	**-0.7**	**1.0**
Spain	10.0	18.1	-2.1	0.5	**2.1**	**-1.3**	-1.0	0.2	2.4	-1.4	**-0.2**	**1.0**
France	7.0	20.8	-5.7	-3.0	**5.1**	**0.0**	-0.2	1.1	4.7	0.7	**0.6**	**0.3**
Monetary Union	8.1	20.9	-2.5	-1.1	**3.3**	**-1.4**	-0.8	5.3	8.9	-0.2	**0.2**	**0.9**

Source: EUROSTAT & INSTITUTO FLORES DE LEMUS / Date: January 29, 2003.

As shown in table 3, the differential in gas and electricity prices is greater than in fuel prices as a consequence of the strong dependency of gas and electricity prices on domestic regulations. prices.

The inflation forecast for January 2003 in the Monetary Union is a value of 0.2%. The year-on-year rate will decrease to 2.0%, with respect to the 2.3% registered in December. The expectations for the average annual rate are 2.0% for 2003 and 1.8% in 2004.

By countries, the expectation for month-on-month inflation for next January is a rate of 0.2% for Italy, 0.3% in France, 0.8% in Germany and negative of 0.1% in Spain.

Table 4 summarises the forecasts for the different components in the Monetary Union. Monthly and annual rates may be found in tables A5A and A5B in the appendix.

Table 4.						
AVERAGE ANNUAL RATE OF GROWTH IN MONETARY UNION						
	Observed				Forecasts	
	1999	**2000**	**2001**	**2002**	**2003**	**2004**
16.747% Residual Inflation	1.2	7.6	4.7	**1.0**	**1.4**	0.4
8.109% Non-Processed Food	0.0	1.7	7.0	3.0	1.1	1.2
8.638% Energy	2.4	13.3	2.7	-0.7	1.8	-0.3
83.253% Core Inflation	1.1	1.2	2.0	**2.5**	**2.1**	**2.1**
12.281% Processed Food	0.9	1.1	2.8	3.0	2.6	2.2
32.072% Non-Energy Commodities	0.7	0.7	1.1	1.5	1.2	1.3
38.901% Non-Energy Services	1.5	1.7	2.5	3.2	2.8	2.7
100% Total Inflation	1.1	2.3	2.5	**2.2**	**2.0**	1.8

Source: EUROSTAT & INSTITUTO FLORES DE LEMUS / Date: January 24 / 2003.

The year-on-year rate for next January, 2.0%, will be composed of a rate of 2.2% in core inflation and of 1.3% in residual inflation. The expectations of the average annual rate in 2003, 2.0%, will be achieved through decreases in core inflation in 2003 to 2.1% and increases in residual inflation, due to prices of energy, compared with the values registered in 2002.

It seems difficult that in the short-term the EMU inflation rate could be systematically below 2% because core inflation it is expected to reach a greater value in 2003, so to obtain total inflation rates below 2% rests on the evolution of residual inflation. But the probability of it being within a range between 1 and 3% is reasonably high. With a redefinition of the inflation target adopting the mentioned range the ECB will not tend to move the interest rates for the time being. But keeping the target as it is, the ECB will tend to increase interest rates before too long.

Table 5 summarises average annual growth rates for the main countries. Monthly and annual forecasts for all the countries can be found in tables A4A, A4B, A4C and A4D in the appendix.

Table 5 ANNUAL AVERAGE RATES OF GROWTH						
	Observed				Forecasts	
	1999	2000	2001	2002	2003	2004
Spain HICP – 10.34%	2.2	3.5	2.8	3.6	3.3	3.2
Germany HICP – 30.56%	0.6	2.1	2.4	1.3	1.0	0.9
France HICP – 20.41%	0.6	1.8	1.8	1.9	1.9	1.4
Italy HICP – 19.34%	1.6	2.6	2.3	2.6	3.1	2.8
EMU HICP – 100%	1.1	2.3	2.5	2.2	2.0	1.8

Source: Eurostat & I. Flores de Lemus / Date: January 29 / 2003.

HICP YEAR-ON-YEAR RATES OF GROWTH IN THE EMU

Graph 1

Non Energy Processed Commodities (BENE) and Sevices (SERV)
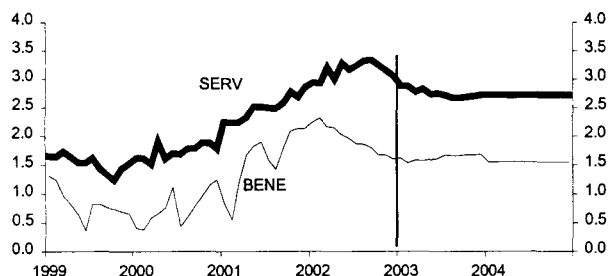
Non Energy Processed Goods and Services (IPSEBENE), Residual Inflation (R) and Global Inflation
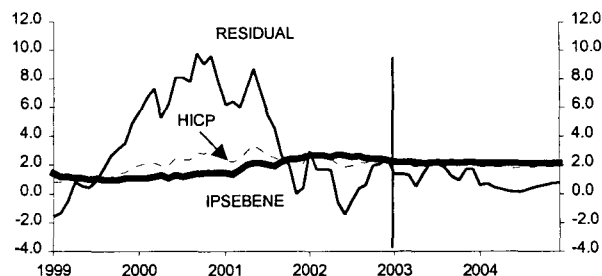
Source: EUROSTAT & I. FLORES DE LEMUS / January 24 / 2003.

II.2 United States

During **December** the US CPI fell 0.22% from the previous month's figure, somewhat more than expected: 0.14%, with the annual rate going from the 2.20% observed in November to 2.38%. This increase in the annual rate is due in its entirety to energy prices, the monthly rate of which has fallen 1.60%, whereas in December 2001, it fell to 3.97% **(see Table 6).**

Table 6

OBSERVED VALUES AND FORECAST ON CPI IN US
December 2002

CONSUMER PRICES INDEX (CPI)	Weights (%)	Annual Growth (T^1_{12}) observed	Monthly Growth (T^1_1)		Confidence Intervals at 80% level (+ -)
			observed (a)	forecasts (b)	
Food (1)	14.9	1.49	0.28	0.36	0.33
Energy (2)	9.9	10.68	-1.60	-1.13	1.31
Residual Inflation (3=2+1)	**24.7**	**4.12**	**-0.32**	**-0.12**	0.56
Non-food and non-energy goods (4)	29.4	-1.52	-0.77	-0.62	0.17
Less tabacco	29.0	-1.96	-0.82	-0.66	0.17
-Durable Goods	17.2	-3.30	-0.25	-0.03	0.22
-Nondurable goods	12.2	0.33	-1.25	-1.20	0.28
-Non-durable goods less tabacco	11.8	-0.45	-1.41	-1.35	0.28
-Tobacco	0.4	9.45	0.45	0.45	1.95
Non-energy services (5)	45.9	3.39	0.00	0.06	0.09
-Services less owner's equivalent rent of primary residence (5-a)	27.4	3.43	-0.18	-0.07	0.14
-Owner's equivalent rent of primary residence (a)	18.5	3.32	0.28	0.25	0.06
Core Inflation (6=4+5)	**75.3**	**1.92**	**-0.21**	**-0.14**	0.09
Core inflation less owner's equivalent rent of primary residence (6-a)	56.8	1.38	-0.40	-0.29	0.11
Core inflatión less owner's equivalent rent of primary residence and tobacco	56.4	1.24	-0.41	-0.31	0.11
All items (7=6+3)	**100.0**	**2.38**	**-0.22**	**-0.14**	0.15
All items less owner's equivalent rent of primary residence (7-a)	81.5	2.11	-0.36	-0.25	0.19

Source: **BLS & INSTITUTO FLORES DE LEMUS**

Data: January 16, 2003

Although the general CPI and all the groups have performed as predicted, there has been a new fall in durable goods, for the second consecutive month, on this occasion due to new motor vehicles, which have decreased their annual rate from −1.54% to −2.02%. We also highlight the good performance of real home rentals, the annual rate of which has fallen from 3.32% to 3.11%.

Core inflation fell by 0.21% from the previous month, instead of the 0.14% expected, with the annual rate going from 1.97% to 1.92%. Core inflation excluding owner's equivalent rent of primary residence and tobacco, comparable with the underlying rate in Europe, fell

0.41% instead of the 0.31% expected, with the annual rate going from 1.38% to 1.24%.

By components, the index for commodities less food and energy without tobacco fell 0.82% instead of the 0.66% expected, with the annual rate going from −1.87% to −1.96%. Durable goods prices declined 0.25% as opposed to the forecast -0.03%, with the annual rate going from −2.98% to −3.30%. The index for new cars increased for the third consecutive month, as opposed to the continuous decreases recorded since January. However, they have decreased their annual rate from −1.54% to −2.02%. Within durable goods, the annual rate of the used car index did not vary from the previous month (-5.5%). Non-durable goods prices excluding the index for tobacco decreased by 1.41%, as expected (-1.35%). And the index for tobacco increased 0.45% as expected, with the annual rate increasing from 5.31% to 9.45% (see Graphs 2 and 3).

Graph 2

.SOME COMMODITIES.
(YEAR ON YEAR RATES)

Source: **BLS & IFL** / Date: January 16, 2003.

Graph 3

.SOMME COMMODITIES.
(YEAR ON YEAR RATES)
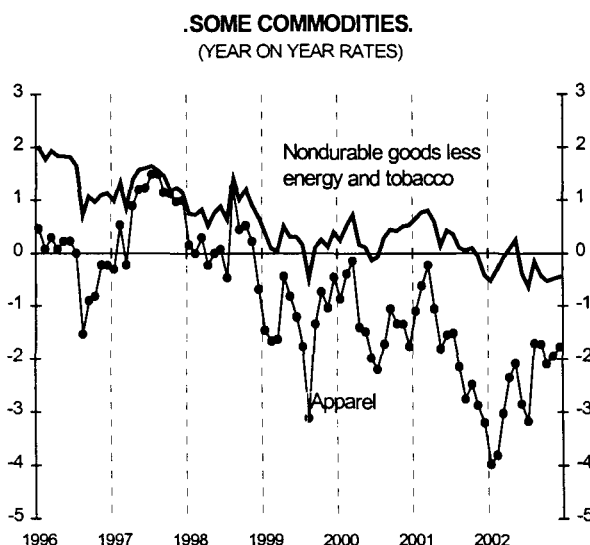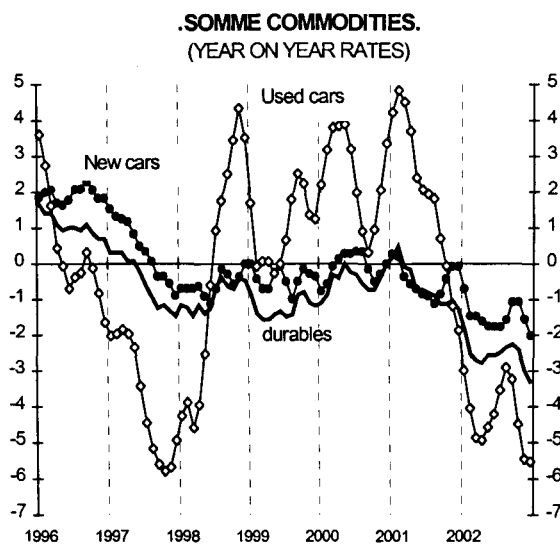
Source: **BLS & IFL** / Date: January 16, 2003.

The index for services did not vary from the previous month as opposed to the 0.06% increase forecast. The annual rate has fallen by 1.4 tenths from 3.53% to 3.39%. The index for services excluding owner's equivalent rent of primary residence, fell 0.18% instead of the 0.07% expected, with the annual rate going from 3.62% to 3.43%. The indexes for rent of primary residence and medical services have performed better than expected, but not the index for owners' equivalent rent of primary residence which has increased 0.28% instead of the 0.25% expected (see Graph 4).

The differential between the index for services (excluding the index for owner's equivalent rent of primary residence) and the index for commodities less food and energy (excluding tobacco prices) has fallen by one tenth, from the previous month, to 5.39 points. This is explained by the 0.19 point decrease in the annual rate of the index for services less owner's equivalent rent of primary residence and the decrease of 0.10 points in the year-on-year rate of the index for commodities less food, energy and tobacco.

Residual inflation decreased by 0.32%, as opposed to the forecast 0.12%, increasing the annual rate from 3.21% to 4.12%. By components, food prices have increased less than expected, 0.28% as opposed to the forecast 0.36%, increasing the annual rate from 1.26% to 1.49%. Likewise, the index for energy has performed better than forecast, with a decrease of 1.60% as opposed to the forecast 1.13%. Its annual rate climbs 2.66 points, mostly because of motor fuel prices, which decreased this month by 3.78% as opposed to 8.04% last year.

For **January** the forecast for the general index is an increase of 0.48%, based on energy

prices and due to growing crude oil prices on the international markets. An increase of 2.59% is expected for the energy index, with a 0.27% increase in core inflation. The annual CPI rate would then go from 2.38% to 2.64%.

By components, the expected increase in the index for services is of 0.54%; 0.22% for the index for owner's equivalent rent of primary residence and 0.75% for the rest. The annual rate of the index for owner's equivalent rent of primary residence would fall by 1.2 tenths to 3.20%. The year-on-year rate for the index for the other services, on the whole, will increase from 3.43% to 3.46% (see **Graph 5**).

Taking commodities less food and energy into consideration, the expected decrease is 0.38%, with the annual rate going from −1.52% to −1.21%. Excluding the index for tobacco, the predicted rise is −0.41% and would leave the year-on-year rate at −1.65%, as opposed to the −1.96% of the last month. Durable goods prices are expected to decrease 0.16%, leaving the annual rate at −2.91%. Non-durable goods prices are forecast to rise − 0.59%, with the year-on-year rate remaining at 0.50%. Within the index of non-durable goods, tobacco prices are predicted to rise 0.24%, which would leave the year-on-year rate at 9.44%.

The expected increase in residual inflation is 1.27%, which would increase the annual rate 0.9 points, up to 5.00%. Within residual inflation, the expected increase for the food index is 0.64%. Energy prices are expected to increase by 2.63%, which would take their annual rate up 2.6 points to 13.29%. Within the index for energy, the evolution of motor fuel prices is especially significant. These prices are expected to increase 5.28% as opposed to the 1.87% of January of last year.

Graph 4
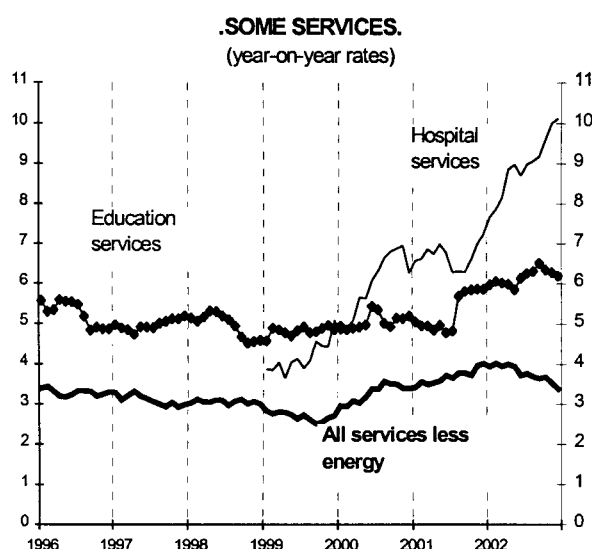
.SOME SERVICES.
(year-on-year rates)

Source: **BLS & IFL** / Date: January 16, 2003.

Graph 5

SERVICES
(YEAR-ON-YEAR RATES)

Source: **BLS & IFL** / Date: January 16, 2003.

For **2003** and **2004** mean total inflation rates of 2.05% and 1.78% respectively are expected, which compared with last month's forecast represents an improvement of one and two decimal points, respectively. In this case, the evolution of crude oil prices, expected to worsen, compensates the new prediction for core inflation. In no case have we contemplated the hypothesis of a war in Iraq (see **Graph 7**).

Core inflation in the US excluding the index for owner's equivalent rent of primary residence and tobacco, which would be equivalent to core inflation in the EMU and Spain, is expected to accelerate slightly in the coming months to rates of under 1.6%, from the current 1.24%, as opposed to the slow-down registered during the last 20 months (see **Graph 6**).

Graph 6

CORE INFLATION
(YEAR-ON-YEAR RATES)

Core inflation

<FORECAST>

Core inflation less owner's equivalent rent of primary residence and tobacco

1998 1999 2000 2001 2002 2003 2004

Source: **BLS & IFL** / Date: January 16, 2003.

Graph 7

GLOBAL CPI
(YEAR-ON-YEAR RATES)

<FORECAST>

All items

Less owner's equivalent rent of primary residence

1998 1999 2000 2001 2002 2003
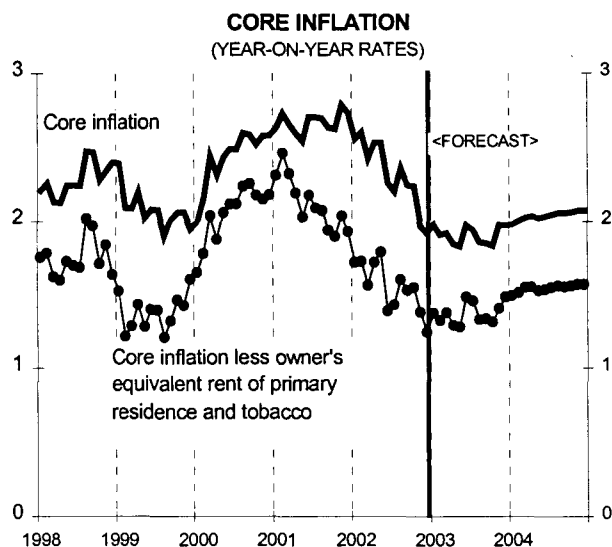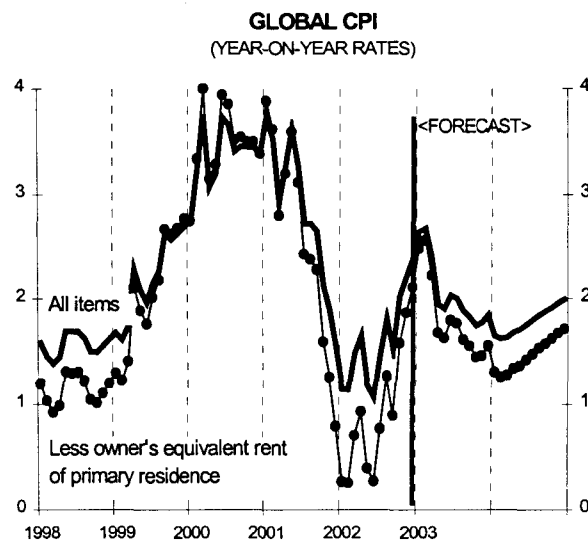
Source: **BLS & IFL** / Date: January 16, 2003.

Table 7 shows the average annual growth rate forecasts for 2003 and 2004 for the different components of the US Consumer Price Index (monthly and annual rates can be found in Tables A6A and A6B in the Appendix).

Table 7

AVERAGE ANNUAL RATE OF GROWTH IN US (*)

CONSUMER PRICES INDEX (CPI)	1998	1999	2000	2001	2002	2003 (forecasts)	2004 (forecasts)
Food (1)	2.2	2.1	2.3	3.1	1.8	2.1	2.6
Energy (2)	-7.7	3.6	16.9	3.8	-5.9	3.7	-2.8
Residual Inflation (3=2+1)	0.1	0.8	6.8	3.3	-0.9	2.6	0.8
Non-food and non-energy goods (4)	0.6	0.7	0.5	0.3	-1.1	-1.0	-0.6
Less tabacco	-0.1	-0.5	-0.1	-0.2	-1.5	-1.4	-1.1
-Durable Goods	-0.9	-1.2	-0.5	-0.6	-2.6	-2.5	-2.1
-Nondurable goods	2.3	2.4	1.4	1.1	0.5	0.5	0.8
Non-energy services (5)	3.1	2.7	3.3	3.7	3.8	3.1	3.1
-Services less owner's equivalent rent of primary residence (5-a)	2.9	2.7	3.5	3.6	3.6	3.2	3.2
-Owner's equivalent rent of primary residence (a)	3.2	2.7	3.0	3.8	4.1	2.9	2.9
Core Inflation (6=4+5)	2.3	2.1	2.4	2.7	2.3	1.9	2.0
Core inflation less owner's equivalent rent of primary residence (6-a)	2.0	1.8	2.2	2.3	1.7	1.5	1.7
Core inflatión less owner's equivalent rent of primary residence and tobacco	1.8	1.4	2.1	2.1	1.6	1.4	1.5
All items (7=6+3)	1.6	2.2	3.4	2.8	1.6	2.1	1.8
All items less owner's equivalent rent of primary residence (7-a)	1.1	2.1	3.5	2.6	0.9	1.8	1.5

(*) Monthly and annual growth rates can be found in tables A6A and A6B in Appendix

Source: **BLS & INSTITUTO FLORES DE LEMUS**
Data: January 16, 2003

II.3 Spain

The CPI for December 2002 showed a monthly-on-monthly rate of 0.33%, above our predicted 0.20%, with a year-on-year rate of 4.0%, registered also in November.

Trend inflation, calculated on the basis of the IPSEBENE-XT index, registered a year-on-year rate of 3.4% in December, below that corresponding to total inflation, 4.0%. Since December 2001, residual inflation has been 5.6%.

The upward innovation in trend inflation came basically in the prices of non-energy industrial goods.

In order to analyse this in greater detail, it is necessary to refer to tables 8 and 9. Table 8 shows the breakdown used in this Bulletin to study inflation behaviour (there is a more detailed version in table A1A at the end of the document) and table 9 summarises prediction errors made for different components.

Table8	SPANISH CPI DISAGGREGATION (*)			
1. Processed Foods CPI (excluding Fats and Tobacco)	AE-X (12.87%)	*Trend Inflation* (1+2+3) IPSEBENE-XT (77.23%)		
2. Non Energy Commodities CPI	MAN (31.41%)			
3. Non Energy Services CPI (excluding Tourism)	SERV-T (32.95%)		*CPI*	
4. Fats, Tobacco and Tourism	XT (4.28%)	*Residual Inflation* (4+5+6) R (22.77%)		(100%)
5. Non Processed Foods CPI	ANE (9.07%)			
6. Energy CPI	ENE (9.41%)			
(*) More detailed information can be found in table A1 in Appendix.				

Table 9 OBSERVED VALUES AND FORECASTS ON CONSUMER PRICE FIGURES IN SPAIN			
Consumer Price Index (CPI)	**Current growth December 02**	*Forecast*	**Confidence Intervals (*)**
(1) AE-X (12.87%)	0.30	0.24	± 0.18%
(2) MAN (31.41%)	-0.12	-0.86	± 0.16%
BENE-X [1+2] (44.28%)	0.0	-0.55	± 0.14%
(3) SERV-T (32.95%)	0.20	0.19	± 0.17%
IPSEBENE-X-T [1+2+3] (77.23%)	**0.09**	**-0.23**	± 0.13%
(4) X+T (4.28%)	1.95	0.79	
(5) ANE (9.07%)	1.06	2.65	± 1.09%
(6) ENE (9.41%)	0.91	1.09	
R [4+5+6] (22.77%)	**1.18**	**1.68**	± 0.22%
IPC [1+2+3+4+5+6] (100%)	**0.33**	**0.20**	± 0.15%
(*) At 80% confidence level.			

Source: INE & INSTITUTO FLORES DE LEMUS Date: January 14, 2003.

The following graph shows the forecast errors in the monthly rate of total inflation. It is relevant to notice how our forecasts have picked up the oscillating evolution of total inflation in 2002.

CPI MONTH-ON-MONTH RATES OF GROWTH IN SPAIN

——— Valores observados / Observed values

- - - - - Predicciones/Forecast
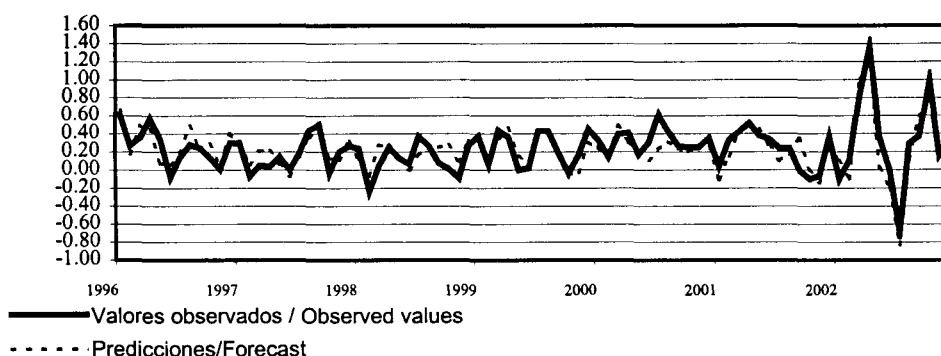
Source: INE & IFL
Date: January 14, 2003.

Trend inflation in goods (measured by the BENE-X index) registered a null growth, above our prediction, -0.55%, as a consequence of the upward innovation in prices of processed food and mainly in prices of non-energy industrial goods. Prices of **non-energy industrial goods** registered a negative monthly-on-monthly rate of 0.12% in December, above our predicted –0.86%. As was mentioned in our previous Bulletins the later entry of new fashion articles comes in a different behaviour of sales effects in 2001 and 2002. So, we modified the sales coefficients of 2001, published by the INE, in order to capture in a correct way the sales evolution in 2002. So, we have been able to pick up the decrease in the monthly rate of commodities prices registered last June, from the 0.44% observed in May it decreases to -0.02% in June, and also the decreases produced in July, –3.2%, and August, and the increase registered in September and October, and finally the decrease registered in November and December.

The annual inflation differential in commodities market with the EMU has remained at 1.5%.

The year-on-year rate registered in December was 2.7%, compared to the 2.8% observed in November. This contrasts with these prices in the Euro-zone, with a year-on-year rate of growth of 1.2% in December. The inflation differential in the commodities market with the EMU has remained in December at 1.5 percentage points, observed in November. The year-on-year rates of growth in apparel and footwear are 5.2% and 5.8%, respectively. If these increases in prices are not reflected in improved quality of corresponding goods, the Spanish economy will suffer a loss of competitiveness in relation to Europe, which will translate to lower economic growth. The predictions for average annual rates in commodity prices stay at 2.0% in 2003 and 2.3% in 2004 with respect to the 2.6% registered in 2002.

The offers picked up by the INE derive in a more erratic evolution of trend inflation in food.

The month-on-month rate of **trend inflation in food** in December stayed at 0.30%, below our prediction, 0.24%. Prices of processed food are now affected by offers that the National Statistics Institute (INE) picks up; this fact derives a more erratic evolution of this kind of prices. The year-on-year rate in December stayed at 2.8%, observed in November. The mean growth expectations of trend inflation in food stay at 2.8% in 2003 and 3.0% in 2004, with respect to the 3.1% observed in 2002.

The mean growth expectations for trend inflation in goods will stay at 2.3% and 2.5%, in 2003 and 2004 respectively.

Trend inflation expectations **for goods** (measured by the BENE-X index) stay at 2.3% in 2003, to increase to 2.5% in 2004, compared to the 2.6% observed in 2002.

Table 10 shows a summary of average annual predictions for the different components that make up core and residual inflation (more detailed information may be found in tables A7A and A7B at the end of the document.)

Table 10

SPANISH AVERAGE RATES OF GROWTH

| | 1998 | 1999 | 2000 | 2001 | 2002 | Forecasts | |
						2003	2004
Residual Inflation	0.6	3.0	6.5	3.7	3.3	3.7	2.5
Fats	-11.1	14.9	-7.6	-7.3	15.2	4.3	5.6
Tobacco	7.9	4.3	2.5	4.9	7.4	2.3	0.0
Tourism	15.4	7.2	12.3	7.1	8.7	12.5	8.8
Non Processed Foods	2.1	1.2	4.2	8.7	5.6	4.8	4.9
Energy	-3.8	3.2	13.3	-1.0	-0.2	1.7	-0.6
Trend Inflation	2.2	2.1	2.5	3.5	3.4	3.1	3.4
BENE-X	1.4	1.3	1.9	3.1	2.6	2.3	2.5
SERV-T	3.3	3.3	3.5	4.1	4.3	4.3	4.4
CPI Inflation	1.8	2.3	3.4	3.6	3.5	3.2	3.1

(*) More detailed information can be found in tables A6A and A6B in Appendix.

Source: INE & Institute Flores of Lemus / Date: January 20/ 2003.

Graph 8

AVERAGE RATES OF GROWTH OF CPI INFLATION
IN GOODS (BENE-X) AND IN SERVICES (SERV-T)
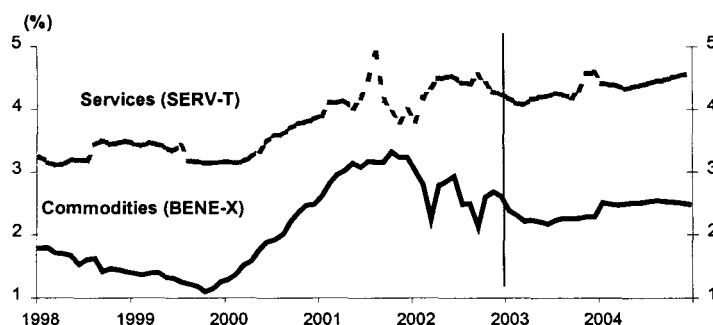
Source: INE & IFL / Date: january 20/ 2003

The worrisome evolution of prices of services derives from an inflation differential between trend inflation in services and trend inflation in goods of 1.6% in December.

With regards to the **services sector, excluding those components known as tourist packages** (the SERV-T index), registered a month-on-month rate of inflation of 0.20%, as was foreseen. The evolution of prices of services is especially worrisome in transport, postal services, university, restaurants, hotels, housing and medicine, which show annual rates of growth near or greater than 5%. The inflation differential between the market of non-energy processed goods, excluding fats and tobacco, and the services market, excluding tourism, remains in December to 1.6 percentage points, observed in November. This differential is greater than the corresponding of the EMU, 1.4%. The year-on-year rate of growth of services in December was 4.4%, while that corresponding to the Euro-zone was 3.0%. The year-on-year trend inflation in services (SERV-T) decreased in December to 4.2%, compared to the 4.3% observed in November. Mean growth expectations stay at 4.3% in 2003 and 4.4% in 2004, compared to the 4.3% observed in 2002.

The mean annual rate of trend inflation

With the aforementioned innovations in the goods and the services market, trend inflation, calculated on the IPSEBENE-XT index, registered an annual rate of 3.4% in December,

observed since October. It is predicted that **trend inflation** will reduce to 3.1% in 2003 due to the better evolution in prices of goods and euro-rounding effects will cease to have an impact on the year-on-year rates, compared to 3.4% observed in 2002.

Those prices which serve as a basis for calculating **residual inflation** have registered a downward innovation in prices of non-processed food and slighter in energy prices; an upward surprise in prices of tourist packages and oil and fats; and a null surprise in prices of tobacco. In the non-processed food groups (the ANE index) there were downward innovations in prices of meat, fish, shellfish, vegetables and potatoes. Prices of tourist packages increased by 7.4% in December with respect to November. Finally, energy prices increased by 0.9% with respect to November.

With all of this, residual inflation registered a year-on-year growth rate of 5.6% in December, respect to the 5.2% registered in November. The expectations for the average annual rate of growth are 3.7% in 2003 and 2.5% in 2004, due to the erratic behaviour of non-processed and energy prices, as with the rest of the EMU.

As a consequence of the uncertainty in prices of crude, the expectations of average growth in consumer energy prices are 1.7% in 2003 and a negative value of 0.6% in 2004, compared to the –0.2% observed in 2002. Average annual variation rates for oils and fats are expected to increase by 4.3% in 2003 and to increase to 5.6 % in 2004, compared to the 15.2% observed in 2002. As far as average growth of non-processed foods, expectations are 4.8% for 2003 and 4.9% in 2004, compared to the 5.6% observed in 2002. Lastly, tourist package prices will reach average values of 12.5% in 2003 and 8.8% in 2004, compared to the 8.7% observed in 2002. Therefore, **the estimated average growth of residual inflation** is 3.7% in 2003 and 2.5% in 2004, compared to the 3.3% observed in 2002.

As a result, **the monthly inflation prediction for January 2003** is for a negative rate of 0.1%; the year-on-year rate will remain at 4.0%, observed in December. The month-on-month trend inflation rate will be negative of 0.6% and residual inflation will be 1.4%. The average inflation rate within the overall CPI is placed at 3.2% in 2003 and 3.1% in 2004, due to the better expected evolution in prices of non-energy industrial goods and food, and euro-rounding effects will cease to have an impact on the year-on-year rates, compared to 3.5% observed in 2002. The average rate of trend inflation will be 3.1% in 2003 and 3.3% in 2004.

The year-on-year rates of total inflation in November and December are used in order to review wages, contracts, and other type of contracts. These year-on-year rates show an extremely variable evolution. For example, in 2001 they moved from 2.7% in November and December to 4.2% in June, in contrast to the average annual rate of 3.6%. Nevertheless, the year-on-year rate in November 2002 was 3.9% and in December 4.0%, greater than the average annual rate of 3.5%

Graph 9
AVERAGE RATES OF GROWTH OF TOTAL INFLATION, TREND AND RESIDUAL INFLATION IN SPAIN

Source: INE & IFL / Date: january 20/ 2003
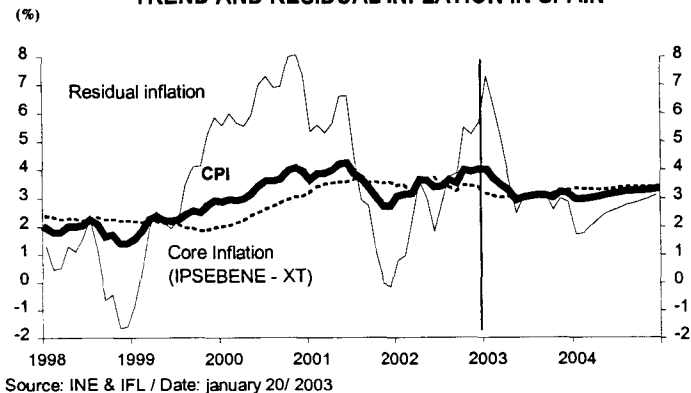
Table 11 shows the average annual rates for 2000, 2001, 2002 and 2003 of the different sectors in the EMU and Spain, where the relevant differential in non-energy industrial goods and services can be observed.

Table 11

**HARMONIZED ICP ANNUAL GROWTH BY SECTORS
IN THE EMU AND SPAIN 2000-2001-2002-2003-2004**

		2000	2001	2002	Forecasts	
					2003	2004
AE	EMU	1.1	2.8	3.0	2.6	2.2
	SPAIN	0.9	3.4	4.4	2.8	2.7
MAN	EMU	0.7	1.1	1.5	1.2	1.3
	SPAIN	2.1	2.6	2.6	2.0	2.3
BENE	EMU	0.8	1.6	1.9	1.6	1.6
	SPAIN	1.7	2.9	3.1	2.3	2.4
SERV	EMU	1.7	2.5	3.0	2.8	2.7
	SPAIN	3.8	4.2	4.5	4.5	4.6
IPSEBENE	EMU	1.3	2.0	2.5	2.1	2.1
	SPAIN	2.4	3.4	3.8	3.3	3.4
ANE	EMU	1.7	7.0	3.0	1.1	1.2
	SPAIN	4.2	8.7	5.6	4.8	4.9
ENE	EMU	13.3	2.7	-0.7	1.8	-0.3
	SPAIN	13.3	-1.0	-0.2	1.7	-0.6
RESIDUAL	EMU	7.6	4.7	1.0	1.4	0.5
	SPAIN	6.5	3.7	3.3	3.7	2.5
HICP	EMU	2.3	2.5	2.2	2.0	1.8
CPI	SPAIN	3.4	3.6	3.5	3.2	3.1

Source: INE, EUROSTAT & Instituto Flores de Lemus / Date: January 24/2003.

TABLES & PLOTS

TABLES:

- A1A: Spanish CPI desaggregation.
- A1B: MU HICP desaggregation.
- A1C: USA HICP desaggregation
- A2: Europe forecast errors for esuro-zone and Monetary Union countries.
- A3: HICP europe forecast errors by sectors in Monetary Union.
- A4A: Hamonized Consumer Price Index (HICP) Annual Growth Rates for 200,2001, and 2002 for MU countries.
- A4B: Hamonized Consumer Price Index (HICP) Annual Growth Rates for 200,2001, and 2002 for UE countries.
- A4C: Hamonized Consumer Price Index (HICP) Monthly Growth Rates for 200,2001, and 2002 for MU countries.
- A4D: Hamonized Consumer Price Index (HICP) Monthly Growth Rates for 200,2001, and 2002 for EU countries.
- A5A: Hamonized Consumer Price Index (HICP) Annual Growth Rates by sectors for 200,2001, and 2002 for MU.
- A5B: Hamonized Consumer Price Index (HICP) Monthly Growth Rates for 200,2001, and 2002 for MU.
- A6A: US CPI Annual Growth Rates for 200,2001 and 2002.
- A6B: US CPI Monthly Growth Rates for 200,2001 and 2002.
- A7A: Spanish CPI Annual Growth rates for 200,2001 and 2002.
- A7B: Spanish CPI Monthly Growth rates for 200,2001 and 2002.
- A8A: Madrid Region CPI Annual growth Rates for 2000,2001 and 2002.
- A8B: Madrid Region CPI Monthly growth Rates for 2000,2001 and 2002.

GRÀFICOS / PLOTS:

- A1A: HICP monthly growth rates in MU.
- A1B: CPI monthly growth rates in US.
- A1C: CPI monthly growth rates in Spain
- A2A: Annual Forecast For The MU Inflation
- A2B: Annual Forecast For The USA Inflation
- A2C: Annual Forecast For The Spanish Inflation
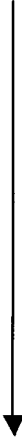
METHODOLOGY: ANALYSIS OF SPANISH INFLATION BY SECTORS

BASIC COMPONENTS AGGREGATES	BASIC COMPONENTES	BASIC COMPONENTS AGGREGATES

IPSEBENE
82.20%
1 + 2 +3 +4 + 5

BENE
48.16%
1 + 2 + 4

AE
15.79%
1 + 4

(1) AE-X
12.64%
processed food excluding fats and tobacco CPI.

(2) MAN
32.37%
non-energy industrial goods CPI

(3) SERV-T
33.02%
services excluding packages tourist CPI

(4) X
3.15%
fats and tobacco CPI

(5) T
1.02%
tourist packages CPI

(6) ANE
8.93%
non-processed food CPI

(7) ENE
8.87%
energy CPI

BENE-X
45.01%
1 + 2

IPSEBENE-X-T
78.03%
1 + 2 + 3

R
21.27%
4 + 5 + 6 + 7

IPC
1 + 2 + 3 + 4 + 5 + 6 + 7

CORE INFLATION
IT IS CALCULATED
ON THE IPSEBENE
INDEX

RESIDUAL INFLATION
IT IS CALCULATED ON
THE R INDEX

TREND INFLATION
IT IS CALCULATED
ON THE IPSEBENE-X-T
INDEX

GLOBAL
INFLATION
IT IS CALCULATED
ON THE IPC INDEX

IPC = 0.1264 **AE-X** + 0.3237 **MAN** + 0.3302 **SERV- T** + 0.0315 **X** + 0.0102 **T** + 0.0893 **ANE** + 0.0887 **ENE**   **(weights 99)**

Source:

INE & Instituto Flores de Lemus, Universidad Carlos III

Methodology: Analysis of EMU inflation by SECTORS

BASIC COMPONENTS AGGREGATES		*BASIC COMPONENTS*
IPSEBENE *83.253%* **1 + 2 +3**	**BENE** *44.353%* **1 + 2**	**(1) AE** *12.281%* HICP Processed Food
		(2) MAN *32.072%* HICP Non Energy Industrial Goods
		(3) SERV *38.901%* HICP Services
	RESIDUAL INFLATION *16.747%* **4 + 5**	**(4) ANE** *8.109%* HICP Non processed Food
		(5) ENE *8.638%* HICP Energy
CORE INFLATION (IT IS CALCULATED ON THE IPSEBENE INDEX)		
IPCA = 0.12281 **AE** + 0.32072 **MAN** + 0.38901 **SERV** + 0.08109 **ANE** + 0.08638 **ENE**		

Source: EUROSTAT & Instituto Flores de Lemus, Universidad Carlos III

Methodology: Analysis of USA inflation by SECTORS

BASIC COMPONENTS AGGREGATES		BASICS COMPONENTS
CORE CPI 75.28% 1 + 2 +3+4+5	SERVICES LESS ENERGY 45.91% 1+2	(1) OWNERS' EQUIVALENT RENT OF PRIMARY RESIDENCE 18.47% (2) SERVICES LESS OWNER' EQUIVALENT RENT OF PRIMARY RESIDENCE 27.44%
	COMMODITIES LESS FOOD AND ENERGY 29.37% 3+4+5	(3) TOBACCO 0.38% (4) NON DURABLES LESS TOBACCO 11.81% (5) DURABLES 17.19%
RESIDUAL CPI 24.72% 6 +7 +8 +9		(6) FOOD 14.86%
	ENERGY 9.86% 7 + 8+9	(7) GAS 1.27% (8) ELECTRICITY 3.42% (9) MOTOR FUEL AND FUEL OIL 5.18%

HIPC =0.4591(SERV. – ENERGY) + 0.2937(COMM. - FOOD AND ENERGY) + 0.1486FOOD + 0.0986ENERGY

Fuente / *Source*: EUROSTAT & Instituto Flores de Lemus, Universidad Carlos III

Elaboración / Elaborated by: Rebeca Albacete

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Cuadro A2   Table A2

ERRORES DE PREDICCIÓN EN LA TASA DE INFLACIÓN MENSUAL DE DICIEMBRE DE 2002 EN LA ZONA EURO Y EN LA UNIÓN EUROPEA

FORECAST ERRORS IN THE MONTHLY INFLATION RATE FOR DECEMBER 2002 IN THE EUROZONE AND IN THE EUROPEAN UNION

	Pesos 2002 UM *Weights 2002 MU*	Pesos 2002 UE *Weights 2002 EU*	Crecimiento Mensual Observado *Observed Monthly Rate*	Predicción *Forecast*	Crecimiento Anual Observado *Observed Annual Rate*	Intervalos de Confianza al 80% *Confidence Intervals at 80%*
España / Spain	*103.43*		0.34	0.25	4.02	± 0.15
Alemania / Germany	*305.57*		0.18	0.29	1.12	± 0.29
Austria	*31.85*		0.27	0.24	1.67	± 0.37
Bélgica / Belgium	*33.97*		0.09	0.02	1.28	± 0.32
Finlandia / Finland	*15.94*		0.00	0.06	1.72	± 0.37
Francia / France	*204.12*		0.18	0.24	2.16	± 0.20
Grecia / Greece	*24.68*		0.71	1.03	3.49	± 0.78
Holanda / Netherlands	*52.00*		-0.08	-0.32	3.48	± 0.33
Irlanda / Irland	*-12.08*		0.73	0.62	4.56	± 0.30
Italia / Italy	*193.36*		0.26	0.12	3.03	± 0.23
Luxemburgo / Luxembourg	*2.56*		-0.18	0.03	2.81	± 0.32
Portugal	*20.45*		0.08	0.19	3.97	± 0.66
Dinamarca / Denmark		*13.73*	0.00	-0.05	2.60	± 0.27
Reino Unido / United Kingdom		*163.49*	0.37	0.25	1.67	± 0.33
Suecia / Sweden		*18.41*	0.36	0.06	1.65	± 0.50

Fuente: / Source: EUROSTAT & IFL

Fecha:22 de enero de 2003. / Date: January 22, 2003

ERRORES DE PREDICCIÓN EN LA TASA DE INFLACIÓN DE DICIEMBRE 2002 POR SECTORES EN LA UME
FORECAST ERRORS IN THE MONTHLY INFLATION RATE FOR DECEMBER 2002 BY SECTORS IN THE EMU

	Pesos 2002 / *Weights 2002*	Crecimiento mensual observado / *Observed Monthly Growth*	Predicción / *Forecast*	Crecimiento anual observado / *Annual Growth Observed*	*Intervalo de confianza al 80% / Confidence interval at 80%*
IPCA Alimentos elaborados / HICP Processed Food	122.81	0.09	0.08	2.56	± 0.14
IPCA Manufacturas / HICP Non Energy Industrial Goods	320.72	-0.09	-0.06	1.23	± 0.10
IPCA Bienes elaborados no energéticos /HICP Non Energy Processed Goods	443.53	-0.04	-0.03	1.60	± 0.09
IPCA Servicios / HICP Services	389.01	0.26	0.32	3.05	± 0.14
INFLACIÓN SUBYACENTE / CORE INFLATION[1]	832.53	0.09	0.14	2.30	± 0.08
IPCA Alimentos no elaborados / HICP Unprocessed Food	81.09	0.52	1.28	1.32	± 0.46
IPCA Energía / HICP Energy[2]	86.38	0.34	0.39	3.58	± 0.60
INFLACIÓN RESIDUAL / RESIDUAL INFLATION[3]	167.47	0.34	0.82	2.45	± 0.39
INFLACIÓN GLOBAL / GLOBAL INFLATION[4]	1000	0.18	0.25	2.28	± 0.09

(1) error de agregación de -0,01% / aggregation error -0.01%
(2) error de agregación de 0,00% / aggregation error 0.00%
(3) error de agregación de -0,09% / aggregation error -0.09%
(4) error de agregación de 0,02%/ aggregation error 0.02%

Fuente / *Source* : EUROSTAT & IFL
Fecha: 22 de enero de 2003 / *Date: January 22, 2003*

HARMONIZED CPI (HICP) ANNUAL GROWTH FOR MU COUNTRIES (1)

	Weight		Rates	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Average Rates (2)		
	MU12	EU15														02/01	03/02	04/03
Spain HICP	10.34%		2002	3.1	3.2	3.2	3.7	3.7	3.4	3.5	3.7	3.5	4.0	3.9	4.0	3.6		
			2003	4.1	3.7	3.5	3.3	2.9	3.0	3.0	3.1	3.1	3.1	3.3	3.3		3.3	
			2004	3.1	3.1	3.1	3.2	3.2	3.3	3.3	3.4	3.3	3.3	3.2	3.2			3.2
Germany HICP	30.56%		2002	2.3	1.8	1.9	1.6	1.0	0.7	1.0	1.0	1.0	1.3	1.0	1.1	1.3		
			2003	0.9	1.0	0.7	0.7	0.9	1.1	1.1	1.1	0.9	0.9	1.3	1.3		1.0	
			2004	0.7	0.8	0.8	0.8	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0			0.9
Austria HICP	3.19%		2002	2.0	1.7	1.7	1.7	1.7	1.5	1.5	2.1	1.6	1.7	1.7	1.7	1.7		
			2003	1.7	1.8	1.8	1.7	1.7	1.8	1.8	1.7	1.8	1.7	1.8	1.8		1.7	
			2004	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8			1.8
Belgium HICP	3.40%		2002	2.6	2.5	2.5	1.7	1.4	0.8	1.1	1.3	1.2	1.3	1.1	1.3	1.6		
			2003	1.3	1.0	0.8	1.0	1.3	1.5	1.7	1.2	1.4	1.4	1.6	1.5		1.3	
			2004	1.5	1.5	1.6	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6			1.6
Finland HICP	1.59%		2002	2.9	2.5	2.6	2.6	1.8	1.5	2.0	1.8	1.4	1.7	1.7	1.7	2.0		
			2003	1.6	1.5	1.4	1.2	1.2	1.4	1.6	1.6	1.5	1.4	1.6	1.7		1.5	
			2004	1.6	1.6	1.5	1.4	1.4	1.5	1.6	1.6	1.5	1.5	1.6	1.7			1.5
France HICP	20.41%		2002	2.4	2.2	2.2	2.1	1.5	1.5	1.6	1.8	1.8	1.9	2.1	2.2	1.9		
			2003	2.0	2.0	2.0	1.8	1.9	2.0	1.9	1.9	1.8	1.7	1.8	1.7		1.9	
			2004	1.3	1.4	1.3	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.5			1.4
Netherlands HICP	5.20%		2002	4.9	4.5	4.3	4.2	3.8	3.9	3.8	3.8	3.7	3.6	3.4	3.5	3.9		
			2003	2.9	3.0	3.1	3.0	3.2	3.2	3.1	3.2	3.1	3.3	3.5	3.3		3.2	
			2004	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3			3.3
Ireland HICP	1.21%		2002	5.2	4.9	5.1	5.0	5.0	4.5	4.2	4.5	4.5	4.4	4.7	4.6	4.7		
			2003	4.4	4.5	4.4	4.4	4.4	4.6	4.7	4.6	4.6	4.6	4.6	4.5		4.5	
			2004	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			4.5
Italy HICP	19.34%		2002	2.4	2.7	2.5	2.5	2.4	2.2	2.4	2.6	2.8	2.8	2.9	3.0	2.6		
			2003	3.2	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.1	3.1	3.1	3.0		3.1	
			2004	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8			2.8
Luxembourg HICP	0.26%		2002	2.1	2.2	1.7	1.9	1.3	1.3	1.9	2.0	2.2	2.5	2.7	2.8	2.1		
			2003	3.7	3.0	3.0	2.8	2.5	2.5	3.2	2.7	2.7	2.6	2.6	2.9		2.8	
			2004	2.9	2.6	2.7	2.6	2.6	2.5	2.7	2.5	2.4	2.3	2.2	2.3			2.5
Portugal HICP	2.05%		2002	3.7	3.3	3.3	3.5	3.4	3.5	3.6	3.9	3.8	4.1	4.1	4.0	3.7		
			2003	4.0	4.1	4.0	4.0	3.9	3.9	3.8	3.7	3.7	3.5	3.5	3.6		3.8	
			2004	3.6	3.6	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7			3.6
Greece HICP	2.47%		2002	4.8	3.8	4.4	4.1	3.8	3.6	3.6	3.8	3.8	3.9	3.9	3.5	3.9		
			2003	3.5	3.6	3.3	3.2	3.2	3.2	3.4	3.4	3.2	3.1	3.1	3.1		3.3	
			2004	3.1	3.2	3.0	2.9	2.9	2.9	3.1	3.1	2.9	2.8	2.8	2.7			2.9

* The annual rate of growth reflects fundamental changes in prices with respect to monthly growth rates
(1) Figures in bold type are forecasted values.
(2) Annual average rate of growth.

Source: EUROSTAT & INSTITUTO FLORES DE LEMUS
Date: January 29, 2002

HARMONIZED CPI (HICP) ANNUAL GROWTH FOR EU COUNTRIES (1)

	Weight		Rate	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Average Rates (2)		
	MU	EU15														02/01	03/02	04/03
			2003	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0			2.1
Denmark HICP	1.37%		2002	2.5	2.4	2.5	2.3	1.9	2.2	2.2	2.4	2.5	2.7	2.8	2.6	2.4		
			2003	2.5	2.5	2.2	2.2	2.5	2.5	2.5	2.4	2.3	2.2	2.3	2.3		2.4	
			2004	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3			2.3
UK HICP	16.35%		2002	1.6	1.5	1.5	1.3	0.8	0.6	1.1	1.0	1.0	1.4	1.6	1.7	1.3		
			2003	1.5	1.6	1.6	1.6	1.8	1.9	1.7	1.7	1.8	1.6	1.6	1.5		1.6	
			2004	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5			1.5
Sweden HICP	1.84%		2002	2.9	2.7	3.0	2.2	1.7	1.7	1.8	1.7	1.2	1.7	1.4	1.7	2.0		
			2003	2.0	1.9	1.6	1.7	1.8	1.9	2.0	2.1	2.0	1.8	2.0	1.9		1.9	
			2004	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.8			1.8
			2004	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9			1.9

* The annual rate of growth reflects fundamental changes in prices with 6 months lags with respect to monthly growth rates.

(1) Figures in bold type are forecasted values.

(2) Annual average rate of growth.

Table A4C

HARMONIZED CPI (HICP) **MONTHLY** GROWTH FOR **MU COUNTRIES** [1]

	Weight MU	Weight EU15	Rate	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	D02/D01	D03/D02	D04/D03
Spain HICP	10.34%		2002	-0.2	0.1	0.9	1.4	0.3	0.0	-0.7	0.3	0.3	0.9	0.2	0.3	4.0		
			2003	-0.1	-0.3	0.6	1.2	0.0	0.1	-0.6	0.4	0.4	0.9	0.3	0.4		3.3	
			2004	-0.3	-0.3	0.7	1.2	0.0	0.1	-0.5	0.4	0.4	0.8	0.3	0.4			3.2
Germany HICP	30.56%		2002	1.0	0.2	0.3	0.0	0.0	-0.1	0.3	-0.2	0.0	-0.1	-0.5	0.2	1.1		
			2003	0.8	0.3	0.0	0.0	0.2	0.1	0.3	-0.2	-0.2	-0.1	0.0	0.2		1.3	
			2004	0.2	0.4	0.0	0.0	0.2	0.2	0.3	-0.1	-0.2	-0.1	0.0	0.2			1.0
Austria HICP	3.19%		2002	0.2	0.1	0.2	0.5	0.2	-0.1	-0.1	0.3	-0.1	0.3	0.0	0.3	1.7		
			2003	0.2	0.2	0.2	0.4	0.2	0.0	-0.1	0.2	0.0	0.3	0.0	0.3		1.8	
			2004	0.2	0.2	0.2	0.4	0.2	0.0	-0.1	0.2	0.0	0.3	0.0	0.3			1.8
Belgium HICP	3.40%		2002	-0.9	1.7	0.2	0.1	0.2	-0.3	-1.0	1.5	0.1	-0.1	-0.2	0.1	1.3		
			2003	-0.9	1.4	0.0	0.3	0.5	-0.1	-0.8	1.0	0.2	-0.1	0.0	0.0		1.5	
			2004	-0.9	1.4	0.1	0.3	0.4	0.0	-0.8	1.0	0.2	-0.1	0.0	0.0			1.6
Finland HICP	1.59%		2002	0.5	0.3	0.5	0.4	0.2	-0.2	-0.4	0.0	0.4	0.3	-0.4	0.0	1.7		
			2003	0.3	0.2	0.4	0.3	0.2	0.0	-0.2	0.1	0.3	0.2	-0.2	0.1		1.7	
			2004	0.2	0.2	0.3	0.2	0.2	0.0	0.0	0.1	0.2	0.2	0.0	0.1			1.7
France HICP	20.41%		2002	0.5	0.1	0.5	0.5	0.1	0.0	-0.1	0.2	0.2	0.2	-0.1	0.2	2.2		
			2003	0.3	0.1	0.5	0.2	0.2	0.0	-0.1	0.1	0.1	0.1	0.0	0.2		1.7	
			2004	-0.1	0.2	0.4	0.2	0.2	0.0	-0.1	0.2	0.1	0.1	0.0	0.2			1.5
Netherlands HICP	5.20%		2002	1.1	0.5	1.0	0.7	-0.2	-0.3	-0.2	0.3	1.0	-0.1	-0.4	-0.1	3.5		
			2003	0.6	0.6	1.1	0.6	0.0	-0.3	-0.2	0.3	1.0	0.1	-0.2	-0.2		3.3	
			2004	0.6	0.6	1.1	0.6	0.0	-0.3	-0.2	0.3	1.0	0.1	-0.2	-0.2			3.3
Ireland HICP	1.21%		2002	-0.2	0.6	0.9	0.7	0.6	0.2	-0.5	0.6	0.3	0.4	0.1	0.7	4.6		
			2003	-0.4	0.7	0.8	0.7	0.6	0.3	-0.4	0.5	0.3	0.4	0.0	0.7		4.5	
			2004	-0.4	0.7	0.8	0.7	0.6	0.3	-0.4	0.5	0.3	0.4	0.0	0.7			4.5
Italy HICP	19.34%		2002	0.0	-0.3	0.9	0.7	0.3	0.1	-0.1	-0.2	0.5	0.5	0.3	0.3	3.0		
			2003	0.2	-0.4	1.0	0.7	0.3	0.1	-0.1	-0.2	0.5	0.5	0.3	0.1		3.0	
			2004	0.1	-0.4	0.9	0.7	0.3	0.1	-0.1	-0.2	0.5	0.5	0.3	0.2			2.8
Luxembourg HICP	0.26%		2002	-0.7	1.2	0.1	0.5	0.4	0.3	-0.6	0.8	0.4	0.4	0.2	-0.2	2.8		
			2003	0.2	0.5	0.1	0.3	0.1	0.3	0.0	0.4	0.3	0.3	0.2	0.1		2.9	
			2004	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2			2.3
Portugal HICP	2.05%		2002	0.1	-0.2	0.4	0.9	0.8	0.3	0.3	0.2	-0.1	0.6	0.6	0.1	4.0		
			2003	0.1	-0.1	0.4	0.8	0.7	0.3	0.2	0.0	-0.1	0.4	0.6	0.2		3.6	
			2004	0.1	-0.1	0.4	0.8	0.7	0.3	0.2	0.0	-0.1	0.4	0.6	0.2			3.7
Greece HICP	2.47%		2002	-0.6	-1.1	2.9	0.8	0.2	-0.2	-2.0	0.2	2.1	0.5	0.1	0.7	3.5		
			2003	-0.6	-1.0	2.6	0.7	0.2	-0.2	-1.8	0.1	1.9	0.4	0.1	0.6		3.1	
			2004	-0.5	-0.9	2.3	0.6	0.2	-0.2	-1.6	0.1	1.7	0.4	0.1	0.6			2.7

(1) Figures in bold type are forecasted values.
(2) December over December rate of growth.

HARMONIZED CPI (HICP) MONTHLY GROWTH FOR EU COUNTRIES (1)

| | Weight | | Rate | I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII | Annual Rates (2) | | |
	MU	EU15														D02/D01	D03/D02	D04/D03
Denmark HICP		1.37%	2002	0.2	0.4	0.8	0.4	0.1	0.1	-0.4	0.2	0.6	0.3	-0.1	0.0	2.6		
			2003	0.1	0.4	0.6	0.3	0.4	0.1	-0.4	0.1	0.5	0.1	0.0	0.0		2.3	
			2004	0.0	0.5	0.6	0.3	0.4	0.1	-0.4	0.1	0.5	0.1	0.0	0.0			2.3
UK HICP		16.35%	2002	-0.4	0.2	0.4	0.4	0.3	0.0	-0.3	0.3	0.3	0.2	0.0	0.4	1.7		
			2003	-0.6	0.3	0.4	0.4	0.4	0.1	-0.5	0.3	0.4	0.0	0.0	0.3		1.5	
			2004	-0.6	0.3	0.4	0.4	0.4	0.1	-0.5	0.3	0.4	0.0	0.0	0.3			1.5
Sweden HICP		1.84%	2002	-0.6	0.3	1.0	0.3	0.2	-0.2	-0.5	0.1	0.7	0.4	-0.3	0.4	1.7		
			2003	-0.4	0.3	0.7	0.3	0.3	-0.1	-0.4	0.1	0.7	0.2	-0.1	0.2		1.9	
			2004	-0.3	0.2	0.6	0.3	0.3	0.0	-0.3	0.1	0.6	0.2	0.0	0.2			1.8

(1) Figures in bold type are forecasted values.
(2) Annual average rate of growth.

Source:

EUROSTAT & INSTITUTO FLORES DE LEMUS

Date: January 29, 2003

Table A5A

HARMONIZED CPI (HICP) **ANNUAL** GROWTH BY **SECTORS IN THE MU** 2002-2003-2004 (a)

	Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Average rates(b) 02/01	03/02	04/03
(1) AE (12.281%)	2002	3.8	3.3	3.3	3.3	3.1	3.1	3.0	2.9	2.8	2.6	2.6	2.6	3.0		
	2003	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6		2.6	
	2004	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2			2.2
(2) MAN (32.072%)	2002	1.7	2.0	1.7	1.7	1.6	1.5	1.5	1.5	1.4	1.3	1.3	1.2	1.5		
	2003	1.2	1.1	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3		1.2	
	2004	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3			1.3
BENE [(1)+(2)] (44.353%)	2002	2.2	2.3	2.2	2.2	2.0	2.0	1.9	1.9	1.8	1.7	1.7	1.6	1.9		
	2003	1.6	1.5	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7		1.6	
	2004	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6			1.6
(3) SERV (38.901%)	2002	2.9	2.9	3.2	3.0	3.3	3.2	3.2	3.3	3.3	3.2	3.2	3.0	3.2		
	2003	2.9	2.9	2.8	2.8	2.7	2.8	2.7	2.7	2.7	2.7	2.7	2.7		2.8	
	2004	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7			2.7
IPSEBENE [(1)+(2)+(3)] (83.253%)	2002	2.6	2.6	2.6	2.5	2.7	2.6	2.5	2.6	2.4	2.4	2.4	2.3	2.5		
	2003	2.2	2.2	2.1	2.2	2.1	2.1	2.2	2.1	2.2	2.1	2.1	2.2		2.1	
	2004	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1			2.1
(4) ANE (8.109%)	2002	8.4	7.2	5.5	4.2	2.0	1.1	0.9	1.3	1.7	1.6	1.9	1.3	3.0		
	2003	-2.1	-1.4	-0.5	0.3	1.5	2.1	2.3	2.2	2.2	2.3	2.3	2.6		1.1	
	2004	2.6	2.4	2.0	1.6	1.0	0.8	0.7	0.8	0.8	0.8	0.8	0.6			1.2
(5) ENE (8.638%)	2002	-1.9	-2.9	-1.5	-0.5	-2.9	-3.7	-1.7	-0.6	-0.3	2.4	2.1	3.6	-0.7		
	2003	4.7	4.1	2.9	0.9	1.2	2.2	1.9	1.5	0.3	-0.3	1.3	0.8		1.8	
	2004	-1.3	-0.8	-1.0	-0.9	-0.7	-0.5	-0.3	-0.1	0.2	0.4	0.6	0.9			-0.3
R [(4)+(5)] (16.747%)	2002	2.9	1.7	1.6	1.6	-0.6	-1.4	-0.5	0.3	0.6	1.9	2.0	2.5	1.0		
	2003	1.3	1.4	1.3	0.5	1.3	2.1	2.1	1.8	1.2	0.9	1.7	1.7		1.4	
	2004	0.6	0.7	0.4	0.3	0.1	0.1	0.2	0.3	0.5	0.6	0.7	0.8			0.4
IPCA (100%)	2002	2.7	2.5	2.5	2.4	2.0	1.8	1.9	2.1	2.1	2.3	2.2	2.3	2.2		
	2003	2.0	2.0	2.0	1.8	2.0	2.1	2.2	2.1	2.0	2.0	2.1	2.1		2.0	
	2004	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9			1.8

* T1,12 growth rate lags fundamental changes in prices 6 months whit respect to monthly growth rates. It is necesary to evaluate forecasts to anannyze current situation.

** Weights on Global HICP are shown in brackets
(a) Figures in bold type are forecasts
(b) Annual average rate of growth

Source:

EUROSTAT & INSTITUTO FLORES DE LEMUS

Date: January 24, 2003

Table A5B

HARMONIZED CPI (HICP) **MONTHLY GROWTH RATES BY SECTORS IN THE MU** 2002-2003-2004 (a)

	Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual Rates (b)		
														D02/D01	D03/D02	D04/D03
(1) AE (12.281%)	2002	0.8	0.0	0.2	0.4	0.2	0.3	0.1	0.3	0.1	0.0	0.2	0.1	2.6		
	2003	0.9	0.0	0.2	0.4	0.2	0.3	0.1	0.3	0.1	0.0	0.2	0.1		2.6	
	2004	0.4	0.0	0.2	0.4	0.2	0.3	0.1	0.3	0.1	0.0	0.2	0.1			2.2
(2) MAN (32.072%)	2002	-0.9	0.0	1.1	0.6	0.1	-0.1	-1.2	0.1	1.0	0.6	0.3	-0.1	1.2		
	2003	-1.0	-0.1	1.1	0.6	0.1	-0.1	-1.2	0.1	0.9	0.6	0.3	-0.1		1.3	
	2004	-1.0	-0.1	1.1	0.6	0.1	-0.1	-1.2	0.1	0.9	0.6	0.3	-0.1			1.3
BENE [(1)+(2)] (44.353%)	2002	-0.5	0.0	0.8	0.5	0.1	0.0	-0.9	0.1	0.7	0.4	0.3	0.0	1.6		
	2003	-0.4	-0.1	0.9	0.5	0.1	0.0	-0.8	0.1	0.7	0.4	0.2	0.0		1.7	
	2004	-0.6	-0.1	0.9	0.5	0.1	0.0	-0.8	0.1	0.7	0.4	0.2	0.0			1.6
(3) SERV (38.901%)	2002	0.6	0.4	0.3	0.2	0.4	0.3	0.8	0.2	-0.3	0.0	-0.1	0.3	3.0		
	2003	0.5	0.4	0.2	0.2	0.3	0.3	0.8	0.1	-0.3	0.0	-0.1	0.3		2.7	
	2004	0.5	0.4	0.2	0.2	0.3	0.3	0.8	0.1	-0.3	0.0	-0.1	0.3			2.7
IPSEBENE [(1)+(2)+(3)] (83.253%)	2002	0.1	0.2	0.6	0.4	0.3	0.1	-0.1	0.2	0.2	0.3	0.1	0.1	2.3		
	2003	0.0	0.2	0.5	0.4	0.2	0.1	-0.1	0.1	0.2	0.2	0.1	0.1		2.2	
	2004	-0.1	0.2	0.5	0.4	0.2	0.1	-0.1	0.1	0.2	0.2	0.1	0.1			2.1
(4) ANE (8.109%)	2002	3.4	-0.7	0.1	0.3	0.0	-0.9	-0.8	-0.9	0.3	0.0	-0.2	0.5	1.3		
	2003	0.0	0.0	1.0	1.1	1.2	-0.3	-0.5	-1.0	0.3	0.1	-0.2	0.9		2.6	
	2004	0.0	-0.3	0.6	0.8	0.7	-0.5	-0.6	-0.9	0.3	0.1	-0.2	0.7			0.6
(5) ENE (8.638%)	2002	1.0	0.3	1.3	2.0	-0.5	-1.0	0.1	0.3	1.0	0.5	-1.7	0.3	3.6		
	2003	2.1	-0.4	0.2	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1		0.8	
	2004	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1			0.9
R [(4)+(5)] (16.747%)	2002	2.2	-0.3	0.7	1.3	-0.3	-0.9	-0.3	-0.3	0.7	0.3	-0.9	0.3	2.5		
	2003	1.1	-0.2	0.6	0.6	0.5	-0.2	-0.3	-0.5	0.1	0.0	-0.2	0.3		1.7	
	2004	0.0	-0.1	0.3	0.4	0.4	-0.2	-0.3	-0.4	0.2	0.1	0.0	0.4			0.8
HIPC (100%)	2002	0.5	0.1	0.5	0.5	0.1	0.0	-0.2	0.1	0.3	0.3	-0.1	0.2	2.3		
	2003	0.2	0.1	0.5	0.4	0.2	0.1	-0.1	0.0	0.2	0.2	0.1	0.2		2.1	
	2004	-0.1	0.1	0.5	0.4	0.2	0.1	-0.1	0.0	0.2	0.2	0.1	0.2			1.9

** Weights on Global HICP are shown in brackets

(a) Figures in bold type are forecasts
(b) December over December rate of growth

Source:

Table A6A

US ANNUAL RATES OF GROWTH ON CPI AND ITS COMPONENTS[1]

		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Avrg 02/ 01 (2)	Avrg 03/ 02 (3)	Avrg 04/ 03 (4)
Non energy commodities less food (1)	2002	-0.8	-0.9	-1.1	-1.0	-0.9	-1.0	-1.3	-0.7	-1.1	-1.2	-1.6	-1.5	-1.1		
	2003	**-1.2**	**-1.1**	**-1.2**	**-1.2**	**-1.1**	**-0.8**	**-0.8**	**-1.0**	**-0.9**	**-1.0**	**-0.6**	**-0.7**		**-1.0**	
	2004	**-0.7**	**-0.6**	**-0.6**	**-0.6**	**-0.6**	**-0.6**	**-0.6**	**-0.6**	**-0.6**	**-0.6**	**-0.6**	**-0.6**			**-0.6**
Non energy services (2)	2002	3.9	4.0	3.9	4.0	3.9	3.7	3.8	3.7	3.6	3.7	3.5	3.4	3.8		
	2003	**3.4**	**3.2**	**3.2**	**3.2**	**3.1**	**3.1**	**3.1**	**3.0**	**3.0**	**3.0**	**3.0**	**3.1**		**3.1**	
	2004	**3.1**	**3.1**	**3.1**	**3.1**	**3.1**	**3.1**	**3.1**	**3.1**	**3.1**	**3.1**	**3.1**	**3.1**			**3.1**
Core inflation (3=1+2)	2002	2.6	2.6	2.4	2.5	2.5	2.3	2.2	2.4	2.2	2.2	2.0	1.9	2.3		
	2003	**2.0**	**1.9**	**1.9**	**1.8**	**1.8**	**2.0**	**1.9**	**1.9**	**1.8**	**1.8**	**2.0**	**2.0**		**1.9**	
	2004	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.1**	**2.1**	**2.1**	**2.1**	**2.1**			**2.0**
Core inflation less owner's equivalent rent of primary residence	2002	1.8	1.9	1.7	1.8	1.9	1.6	1.5	1.8	1.6	1.7	1.4	1.4	1.7		
	2003	**1.5**	**1.5**	**1.5**	**1.4**	**1.4**	**1.6**	**1.6**	**1.5**	**1.5**	**1.5**	**1.6**	**1.6**		**1.5**	
	2004	**1.6**	**1.7**	**1.7**	**1.7**	**1.7**	**1.7**	**1.7**	**1.7**	**1.7**	**1.7**	**1.7**	**1.7**			**1.7**
Food (4)	2002	2.9	2.7	2.6	2.5	1.9	1.6	1.4	1.2	1.3	0.9	1.3	1.5	1.8		
	2003	**1.5**	**1.5**	**1.5**	**1.6**	**2.0**	**2.0**	**2.2**	**2.4**	**2.4**	**2.6**	**2.5**	**2.5**		**2.1**	
	2004	**2.6**	**2.6**	**2.6**	**2.6**	**2.6**	**2.6**	**2.6**	**2.6**	**2.6**	**2.6**	**2.6**	**2.6**			**2.6**
Energy (5)	2002	-15.7	-15.9	-10.7	-8.2	-12.3	-11.1	-5.2	-2.8	-4.8	3.0	8.0	10.7	-5.9		
	2003	**13.3**	**15.0**	**10.5**	**3.8**	**3.1**	**3.0**	**2.2**	**1.3**	**0.5**	**-1.3**	**-2.3**	**-1.2**		**3.7**	
	2004	**-4.1**	**-4.8**	**-4.8**	**-4.3**	**-3.8**	**-3.2**	**-2.7**	**-2.2**	**-1.7**	**-1.2**	**-0.8**	**-0.3**			**-2.8**
All items (6=3+4+5)	2002	1.1	1.1	1.5	1.6	1.2	1.1	1.5	1.8	1.5	2.0	2.2	2.4	1.6		
	2003	**2.6**	**2.7**	**2.4**	**2.0**	**1.9**	**2.0**	**2.0**	**1.9**	**1.8**	**1.7**	**1.8**	**1.8**		**2.1**	
	2004	**1.6**	**1.6**	**1.6**	**1.7**	**1.7**	**1.7**	**1.8**	**1.8**	**1.9**	**1.9**	**2.0**	**2.0**			**1.8**
All items less owner's equivalent rent of primary residence	2002	0.3	0.3	0.7	0.9	0.4	0.3	0.8	1.3	0.9	1.6	1.9	2.1	0.9		
	2003	**2.5**	**2.6**	**2.2**	**1.7**	**1.6**	**1.8**	**1.8**	**1.6**	**1.5**	**1.4**	**1.5**	**1.5**		**1.8**	
	2004	**1.3**	**1.3**	**1.3**	**1.3**	**1.4**	**1.4**	**1.5**	**1.5**	**1.6**	**1.6**	**1.7**	**1.7**			**1.5**

(1) Figures in bold type are forecasted values.
(2) Mean level of 2002 over 2001growth rate.
(3) Mean level of 2003 over 2002 growth rate.
(4) Mean level of 2004 over 2003 growth rate.

Source: BLS & INSTITUTO FLORES DE LEMUS
Data: January 16, 2003

Table A6B

US MONTHLY RATES OF GROWTH ON CPI AND ITS COMPONENTS [1]

		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	02(XII)/ 01(XII) (*)	03(XII)/ 02(XII) (*)	04(XII)/ 03(XII) (*)
Non energy commodities less food (1)	2002	-0.7	0.3	0.3	0.3	-0.5	-0.7	-0.6	0.2	0.6	0.2	-0.2	-0.8	-1.5		
	2003	-0.4	0.4	0.2	0.4	-0.4	-0.5	-0.6	0.0	0.6	0.2	0.1	-0.8		-0.7	
	2004	-0.4	0.5	0.2	0.4	-0.5	-0.4	-0.6	0.1	0.6	0.2	0.2	-0.8			-0.6
Non energy services (2)	2002	0.6	0.6	0.4	0.2	0.1	0.3	0.4	0.5	0.0	0.3	0.1	0.0	3.4		
	2003	0.5	0.5	0.4	0.1	0.1	0.3	0.3	0.4	0.0	0.3	0.1	0.0		3.1	
	2004	0.5	0.5	0.4	0.1	0.1	0.3	0.4	0.4	0.0	0.3	0.2	0.0			3.1
Core inflation (3=1+2)	2002	0.2	0.5	0.3	0.3	-0.1	-0.1	0.1	0.4	0.2	0.3	0.0	-0.2	1.9		
	2003	0.3	0.5	0.3	0.2	-0.1	0.1	0.1	0.3	0.2	0.2	0.1	-0.2		2.0	
	2004	0.3	0.5	0.3	0.2	-0.1	0.1	0.1	0.3	0.2	0.2	0.2	-0.2			2.1
Core inflation less owner's equivalent rent of primary residence	2002	0.2	0.6	0.3	0.3	-0.1	-0.2	0.0	0.4	0.1	0.3	-0.1	-0.4	1.4		
	2003	0.3	0.6	0.4	0.2	-0.2	0.0	0.0	0.3	0.1	0.2	0.1	-0.4		1.6	
	2004	0.3	0.6	0.4	0.2	-0.2	0.0	0.0	0.3	0.1	0.2	0.1	-0.4			1.7
Food (4)	2002	0.6	0.1	0.1	0.1	-0.2	0.0	0.1	0.0	0.2	0.1	0.2	0.3	1.5		
	2003	0.6	0.0	0.2	0.2	0.1	0.1	0.3	0.2	0.2	0.2	0.1	0.3		2.5	
	2004	0.7	0.0	0.2	0.2	0.1	0.1	0.3	0.2	0.2	0.2	0.1	0.3			2.6
Energy (5)	2002	0.3	-0.6	4.1	5.7	0.6	1.6	0.5	0.2	0.2	-0.2	-0.4	-1.6	10.7		
	2003	2.6	0.8	0.1	-0.7	-0.1	1.5	-0.2	-0.6	-0.6	-2.1	-1.4	-0.5		-1.2	
	2004	-0.4	0.2	0.0	-0.2	0.5	2.2	0.3	-0.1	-0.1	-1.6	-0.9	0.0			-0.3
All items (6=3+4+5)	2002	0.2	0.4	0.6	0.6	0.0	0.1	0.1	0.3	0.2	0.2	0.0	-0.2	2.4		
	2003	0.5	0.4	0.3	0.1	0.0	0.2	0.1	0.2	0.1	0.1	0.0	-0.2		1.8	
	2004	0.3	0.4	0.3	0.2	0.0	0.2	0.1	0.3	0.1	0.1	0.1	-0.1			2.0
All items less owner's equivalent rent of primary residence	2002	0.2	0.4	0.6	0.7	-0.1	0.0	0.1	0.4	0.1	0.1	-0.1	-0.4	2.1		
	2003	0.6	0.5	0.3	0.1	-0.1	0.2	0.0	0.2	0.0	0.0	-0.1	-0.3		1.5	
	2004	0.3	0.5	0.3	0.2	-0.1	0.2	0.1	0.3	0.1	0.1	0.0	-0.2			1.7

(1) Figures in bold type are forecasted values.
(2) December 2002 over December 2001 growth rate.
(3) December 2003over December 2002growth rate.
(4) December 2004 over December 2003 growth rate.

Source: BLS & INSTITUTO FLORES DE LEMUS
Data: January 16, 2003

"CONSUMER PRICE INDEX, **ANNUAL** GROWTH RATES IN **SPAIN** 2002-2003-2004 (a)

(**) Concept	Rate	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Avr 02/01(b)	Avr 03/02(c)	Avr 04/03(d)
(1) AE-X	2002	3.8	3.4	3.3	3.1	3.1	3.1	3.1	3.0	3.0	3.0	2.8	2.8	3.1		
(12,87%)	2003	3.0	3.0	3.0	3.0	2.9	2.8	2.8	2.9	2.8	2.6	2.7	2.7		2.8	
	2004	3.0	3.0	3.0	3.1	3.1	3.0	3.0	3.0	3.0	2.9	2.9	2.8			3.0
(2) MAN	2002	2.8	2.7	1.9	2.8	2.9	3.0	2.3	2.4	1.9	2.5	2.8	2.7	2.6		
(31,40%)	2003	2.1	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.1	2.1	2.1		2.0	
	2004	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4			2.3
BENE - X	2002	3.0	2.8	2.2	2.8	2.8	2.9	2.5	2.5	2.1	2.6	2.7	2.6	2.6		
'[(1)+(2)] = (44,28%)	2003	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3		2.3	
	2004	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5			2.5
(3) SERV-T	2002	3.8	4.2	4.3	4.5	4.5	4.5	4.4	4.4	4.5	4.4	4.3	4.2	4.3		
(32,95%)	2003	4.2	4.1	4.1	4.1	4.2	4.2	4.3	4.2	4.2	4.3	4.6	4.6		4.3	
	2004	4.4	4.4	4.4	4.3	4.4	4.4	4.4	4.4	4.5	4.5	4.5	4.6			4.4
IPSEBENE-XT	2002	3.4	3.5	3.2	3.6	3.6	3.7	3.4	3.4	3.2	3.4	3.4	3.4	3.4		
[(1)+(2)+(3)]=(77,23%)	2003	3.2	3.1	3.0	3.1	3.1	3.0	3.1	3.1	3.1	3.1	3.3	3.3		3.1	
	2004	3.3	3.3	3.3	3.3	3.3	3.3	3.4	3.4	3.4	3.4	3.4	3.4			3.3
(4) XT	2002	6.4	6.9	9.4	10.3	12.5	11.8	10.7	11.0	9.4	8.9	7.4	6.6	9.3		
(4,28%)	2003	6.2	5.9	5.9	7.6	4.8	4.8	5.5	4.9	6.7	6.4	3.8	2.9		5.4	
	2004	3.2	3.7	3.4	3.6	3.7	3.7	3.8	3.8	3.7	3.7	3.6	3.6			3.6
(5) ANE	2002	4.5	5.3	4.4	5.2	5.3	5.3	5.1	5.3	5.8	7.1	7.4	6.5	5.6		
(9,07%)	2003	8.7	6.2	6.0	5.7	3.6	2.9	3.1	4.1	4.5	4.0	3.8	5.1		4.8	
	2004	4.1	4.2	4.7	4.9	5.2	5.2	5.1	5.1	5.0	5.0	4.9	4.9			4.9
(6) ENE	2002	-2.9	-3.2	-1.2	-0.4	-1.9	-4.4	-1.6	0.2	0.9	3.7	3.5	5.7	-0.2		
(9,41%)	2003	5.4	5.3	3.3	0.5	0.1	2.1	1.5	1.0	-0.1	-0.8	1.6	0.4		1.7	
	2004	-1.6	-1.7	-1.6	-1.3	-1.1	-0.8	-0.6	-0.3	0.0	0.2	0.5	0.8			-0.6
R	2002	0.8	1.0	2.3	3.6	3.0	1.8	2.8	3.7	3.9	5.5	5.2	5.6	3.3		
[(4)+(5)+(6)]=(22,77%)	2003	7.3	6.3	5.1	3.6	2.5	3.0	3.0	3.1	3.1	2.6	3.0	2.8		3.7	
	2004	1.7	1.8	2.0	2.2	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1			2.5
HIPC	2002	3.0	3.1	3.1	3.6	3.6	3.4	3.4	3.6	3.5	4.0	3.9	4.0	3.5		
(100%)	2003	4.0	3.7	3.5	3.3	2.9	3.0	3.1	3.1	3.1	3.0	3.2	3.2		3.2	
	2004	3.0	3.0	3.0	3.0	3.1	3.1	3.2	3.2	3.2	3.3	3.3	3.3			3.1

* T1,12 growth rate lags fundamental changes in prices 6 months with respect to monthly growth rates. It is necessary to evaluate forecast in order to analyze current situation.

** Weights on General CPI are shown in brackets

(a) Figures in bold type are forecasted values
(b) 2002 over 2001 mean growth
(c) 2003 over 2002 mean growth
(d) 2004 over 2003 mean growth

Source:

Elaborated by: Rebeca Albacete
albacete@est-econ.uc3m.es

CONSUMER PRICE INDEX, **MONTHLY** GROWTH RATES IN **SPAIN** 2002-2003-2004 (a)

(*) Concept	Rate	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	D02/ D01(b)	D03/ D02(c)	D04/ D03(d)
(1) AE-X (12,87%)	2002	0.3	0.1	0.4	0.2	0.4	0.3	0.2	0.2	0.2	0.1	0.0	0.3	2.8		
	2003	0.5	0.1	0.3	0.3	0.2	0.3	0.2	0.3	0.1	0.0	0.1	0.3		2.7	
	2004	0.9	0.1	0.3	0.3	0.2	0.3	0.2	0.3	0.0	-0.1	0.1	0.2			2.8
(2) MAN (31,40%)	2002	-2.5	-0.3	0.9	2.4	0.4	0.0	-3.2	-0.2	1.0	2.9	1.4	-0.1	2.7		
	2003	-3.0	-0.4	0.8	2.4	0.4	0.0	-3.1	-0.1	1.0	3.0	1.4	-0.1		2.1	
	2004	-2.8	-0.4	0.7	2.5	0.5	0.0	-3.1	-0.1	1.0	3.0	1.4	-0.1			2.4
BENE - X [(1)+(2)] = (44,28%)	2002	-1.7	-0.2	0.7	1.8	0.4	0.1	-2.2	0.0	0.7	2.1	1.0	0.0	2.6		
	2003	-2.0	-0.2	0.6	1.8	0.4	0.1	-2.2	0.0	0.7	2.1	1.0	0.0		2.3	
	2004	-1.7	-0.3	0.6	1.8	0.4	0.0	-2.2	0.0	0.7	2.1	1.0	0.0			2.5
(3) SERV-T (32.95%)	2002	1.3	0.5	0.5	0.5	0.2	0.3	0.4	0.3	0.0	0.2	-0.2	0.2	4.2		
	2003	1.2	0.4	0.5	0.5	0.2	0.3	0.4	0.3	0.0	0.3	0.1	0.2		4.6	
	2004	1.1	0.4	0.4	0.5	0.3	0.3	0.5	0.4	0.0	0.3	0.1	0.2			4.6
IPSEBENE-XT [(1)+(2)+(3)]=(77,23%)	2002	-0.4	0.1	0.6	1.2	0.3	0.2	-1.1	0.1	0.4	1.3	0.5	0.1	3.4		
	2003	-0.6	0.1	0.6	1.2	0.3	0.2	-1.0	0.1	0.4	1.3	0.6	0.1		3.3	
	2004	-0.5	0.0	0.5	1.2	0.3	0.2	-1.0	0.2	0.4	1.3	0.6	0.1			3.4
(4) XT (4,28%)	2002	-1.4	-0.2	2.6	2.5	1.1	0.8	1.4	1.8	-2.4	-1.0	-0.6	1.9	6.6		
	2003	-1.8	-0.5	2.7	4.1	-1.5	0.8	2.1	1.2	-0.8	-1.2	-3.0	1.0		2.9	
	2004	-1.5	-0.1	2.5	4.3	-1.4	0.8	2.2	1.2	-0.8	-1.3	-3.1	1.0			3.6
(5) ANE (9,07%)	2002	0.3	-0.1	0.7	0.7	0.4	0.1	0.8	0.8	1.0	0.3	0.3	1.1	6.5		
	2003	2.3	-2.4	0.6	0.4	-1.5	-0.6	1.0	1.8	1.3	-0.2	0.1	2.3		5.1	
	2004	1.3	-2.3	1.1	0.6	-1.3	-0.6	0.9	1.8	1.2	-0.2	0.1	2.3			4.9
(6) ENE (9,41%)	2002	2.5	0.2	1.9	2.5	0.2	-1.9	0.3	0.3	0.8	0.5	-2.6	0.9	5.7		
	2003	2.1	0.2	-0.1	-0.2	-0.2	0.0	-0.3	-0.2	-0.2	-0.2	-0.2	-0.3		0.4	
	2004	0.1	0.0	0.1	0.0	0.1	0.3	0.0	0.1	0.0	0.0	0.1	0.0			0.8
R [(4)+(5)+(6)]=(22,77%)	2002	0.8	0.0	1.6	1.8	0.5	-0.6	0.7	0.8	0.2	0.1	-1.0	1.2	5.6		
	2003	1.4	-1.0	0.7	0.9	-1.0	-0.1	0.7	0.9	0.3	-0.4	-0.7	1.1		2.8	
	2004	0.3	-1.0	1.0	1.1	-0.8	0.0	0.8	1.0	0.3	-0.3	-0.6	1.2			3.1
HIPC (100%)	2002	-0.1	0.1	0.8	1.3	0.4	0.0	-0.7	0.3	0.4	1.0	0.2	0.3	4.0		
	2003	-0.1	-0.2	0.6	1.2	0.0	0.1	-0.6	0.3	0.4	0.9	0.3	0.3		3.2	
	2004	-0.3	-0.2	0.6	1.2	0.1	0.1	-0.6	0.4	0.4	0.9	0.4	0.3			3.3

*** Weights on General CPI are shown in brackets*
(a) Figures in bold type are foreasted values
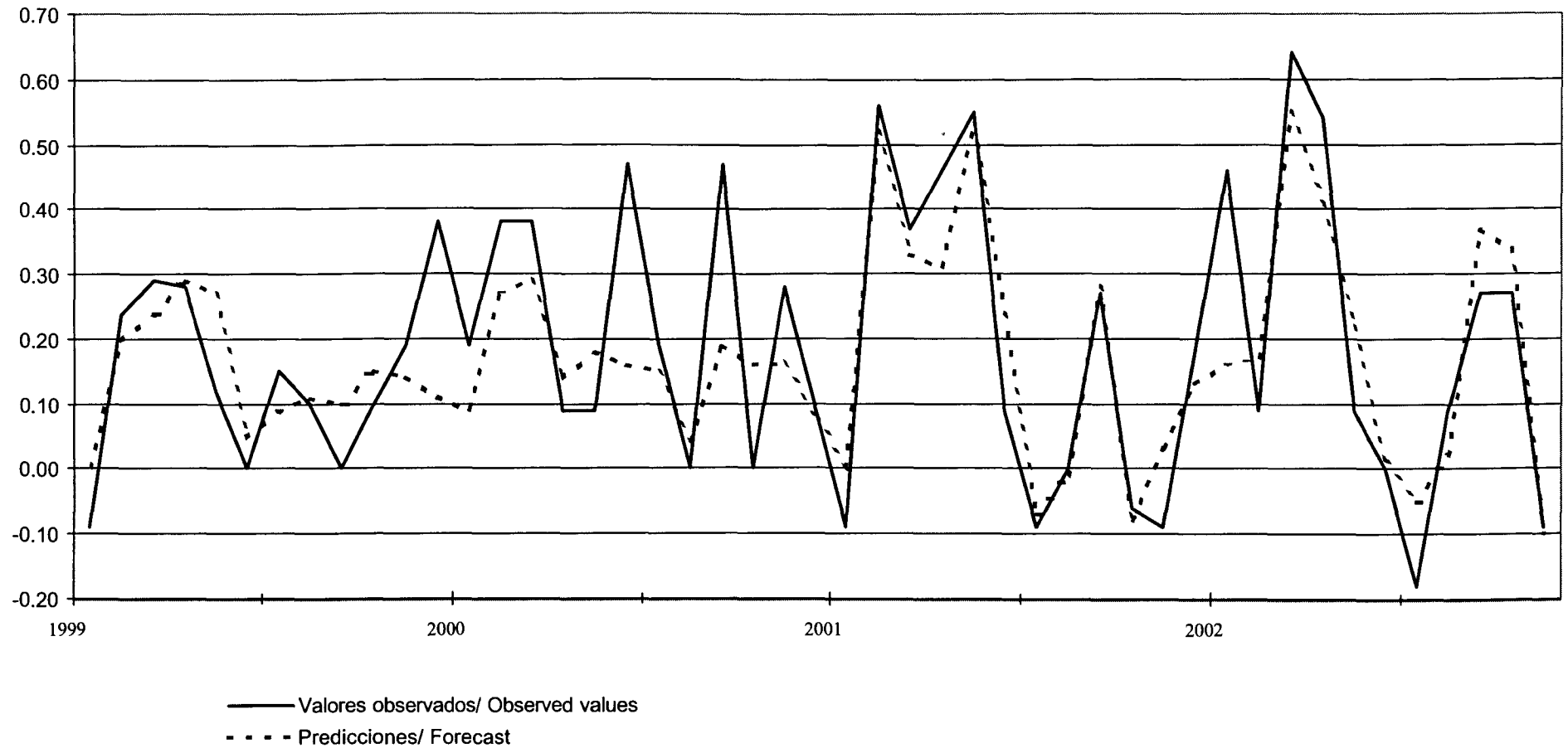*(b) December 2002 over December 2001*
(c) December 2003 over December 2002
(d) December 2004 over December 2003
Source:

INE & INSTITUTO FLORES DE LEMUS

Date: January 20, 2003.

HCPI MONTH -ON-MONTH RATES OF GROWTH IN THE EMU

—— Valores observados/ Observed values

- - - - Predicciones/ Forecast

CPI MONTHLY GROWTH RATES IN USA

2001   2002

— — 'FORECAST   ——— OBSERVED VALUES

CPI MONTH-ON-MONTH RATES OF GROWTH IN SPAIN

Valores observados / Observed values
Predicciones/Forecast

ANNUAL FORECASTS FOR THE EMU INFLATION
(year-on-year rates)

(%)

Source: Eurostat & IFL
Date: January 24, 2003.

ANNUAL FORECASTS FOR US INFLATION

CPI —+— dic-01 —●— forecast
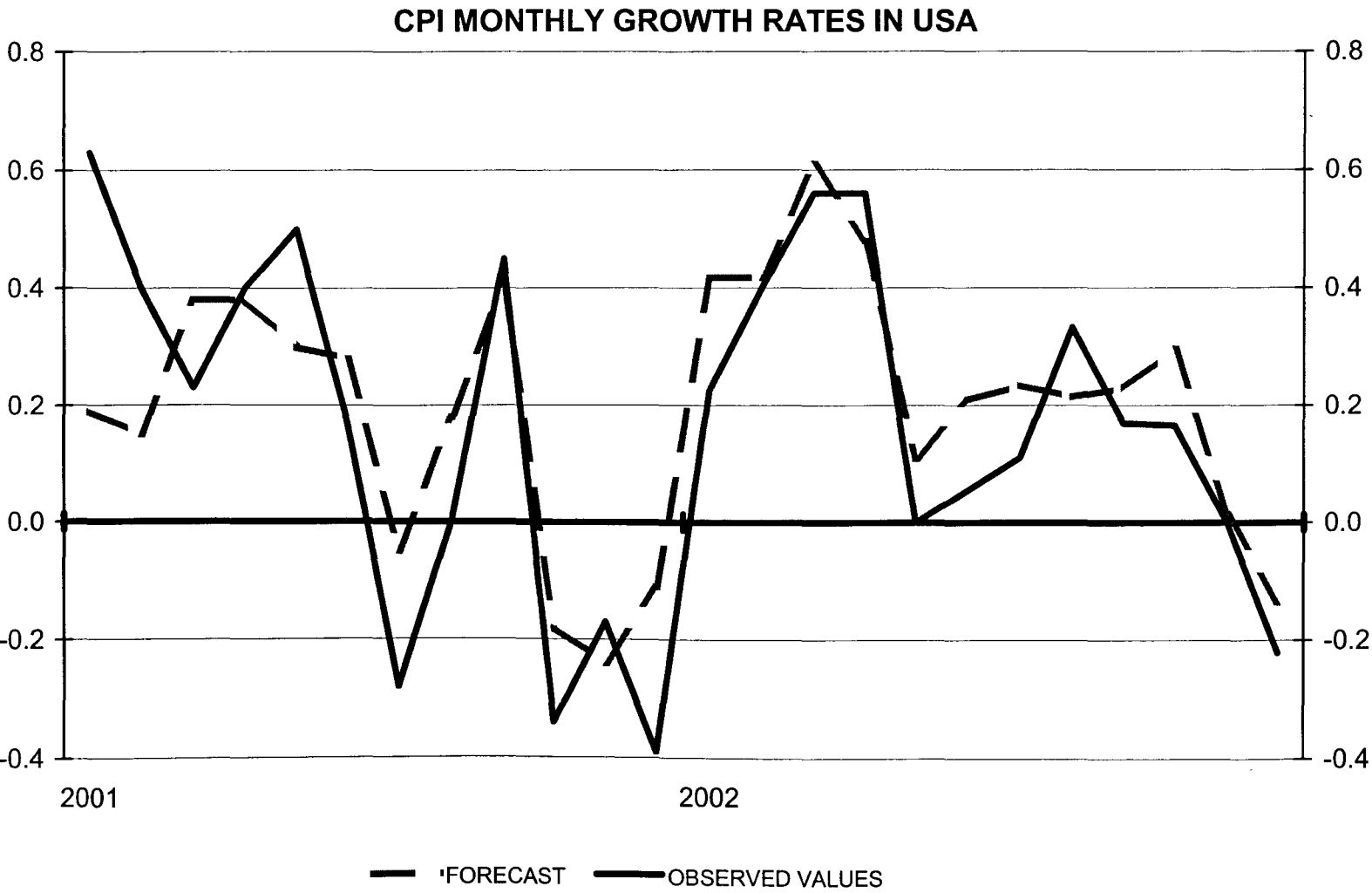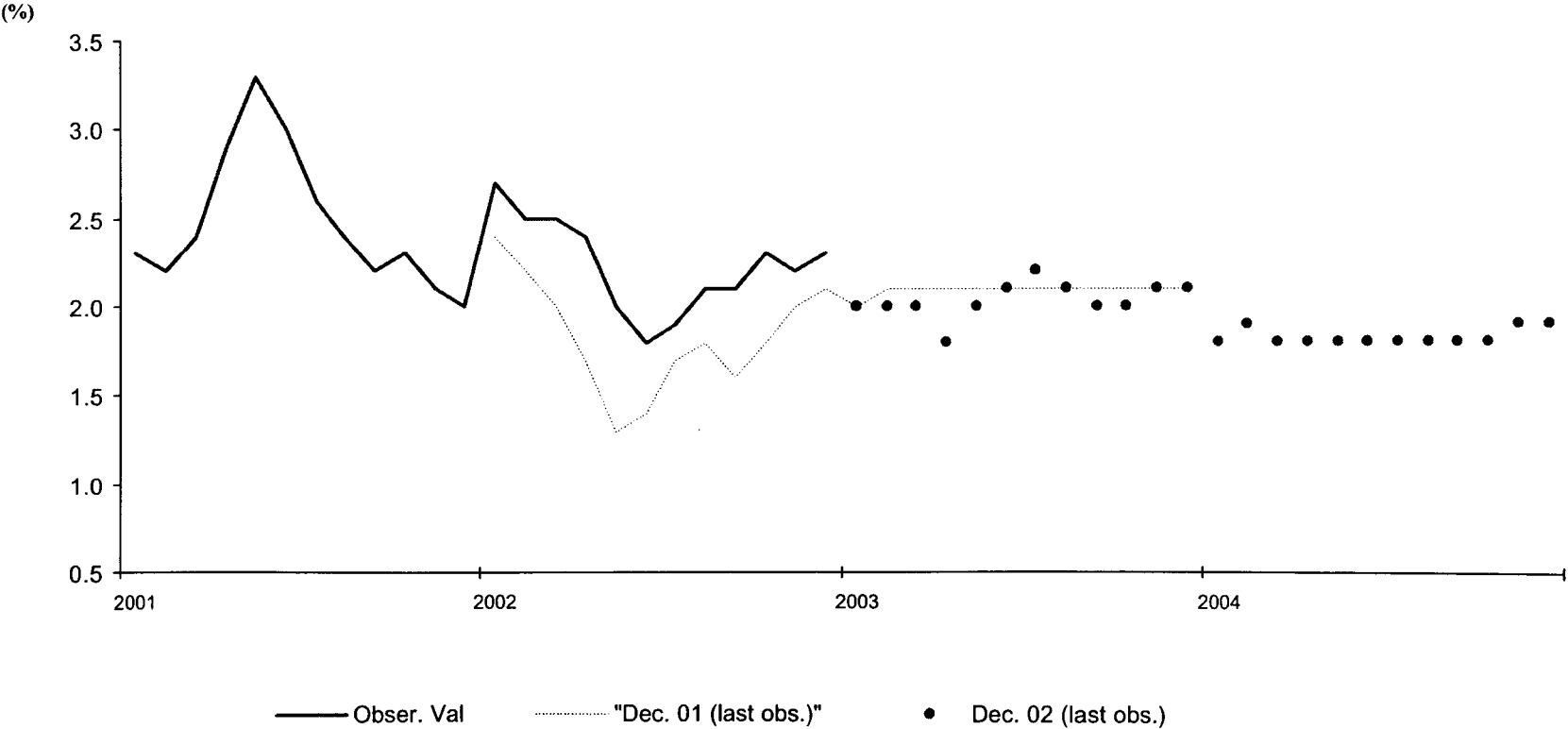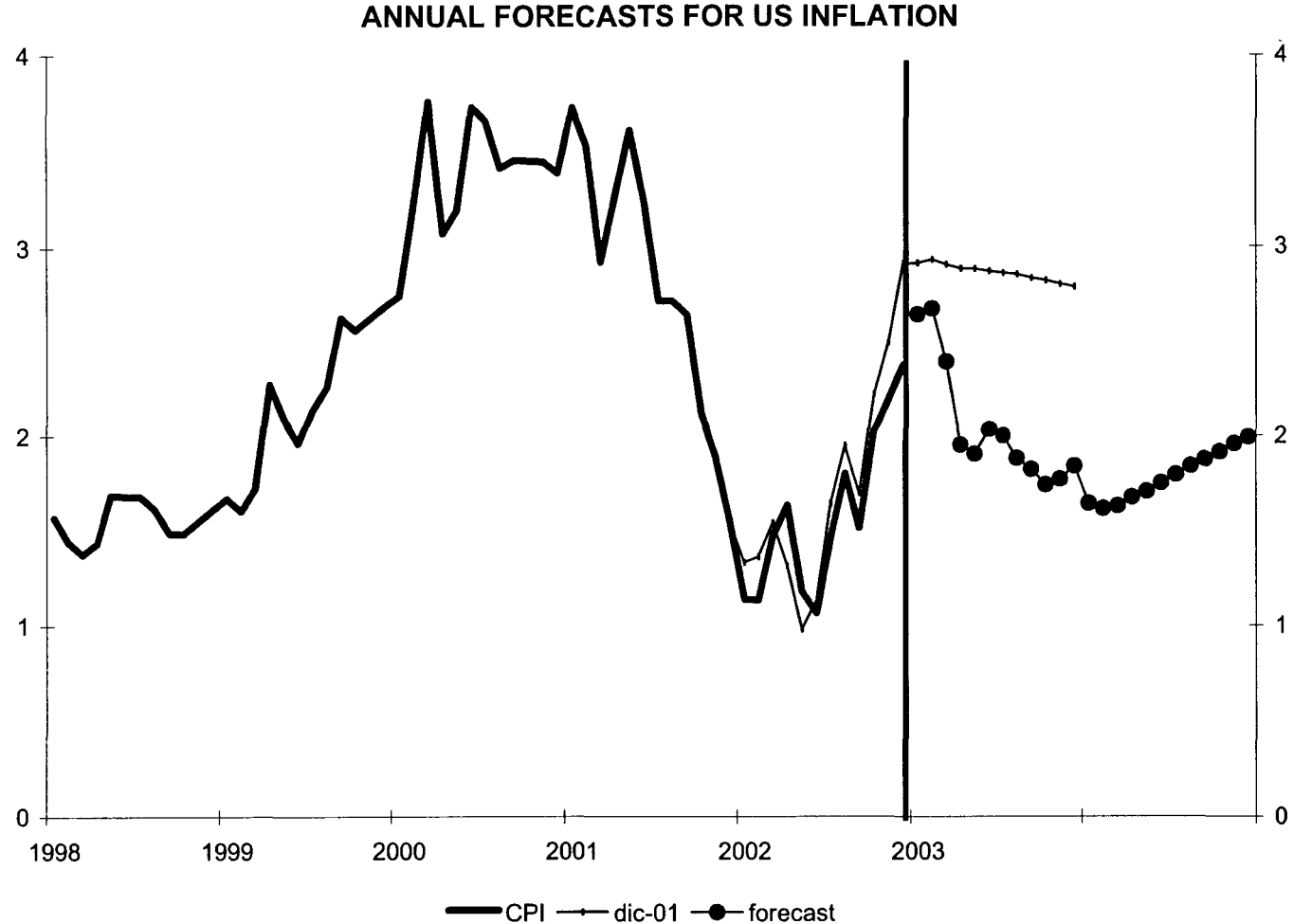
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(%)

Obser. Val   Dec. 01 (last obs.)   ● Dec. 02 (last obs.)
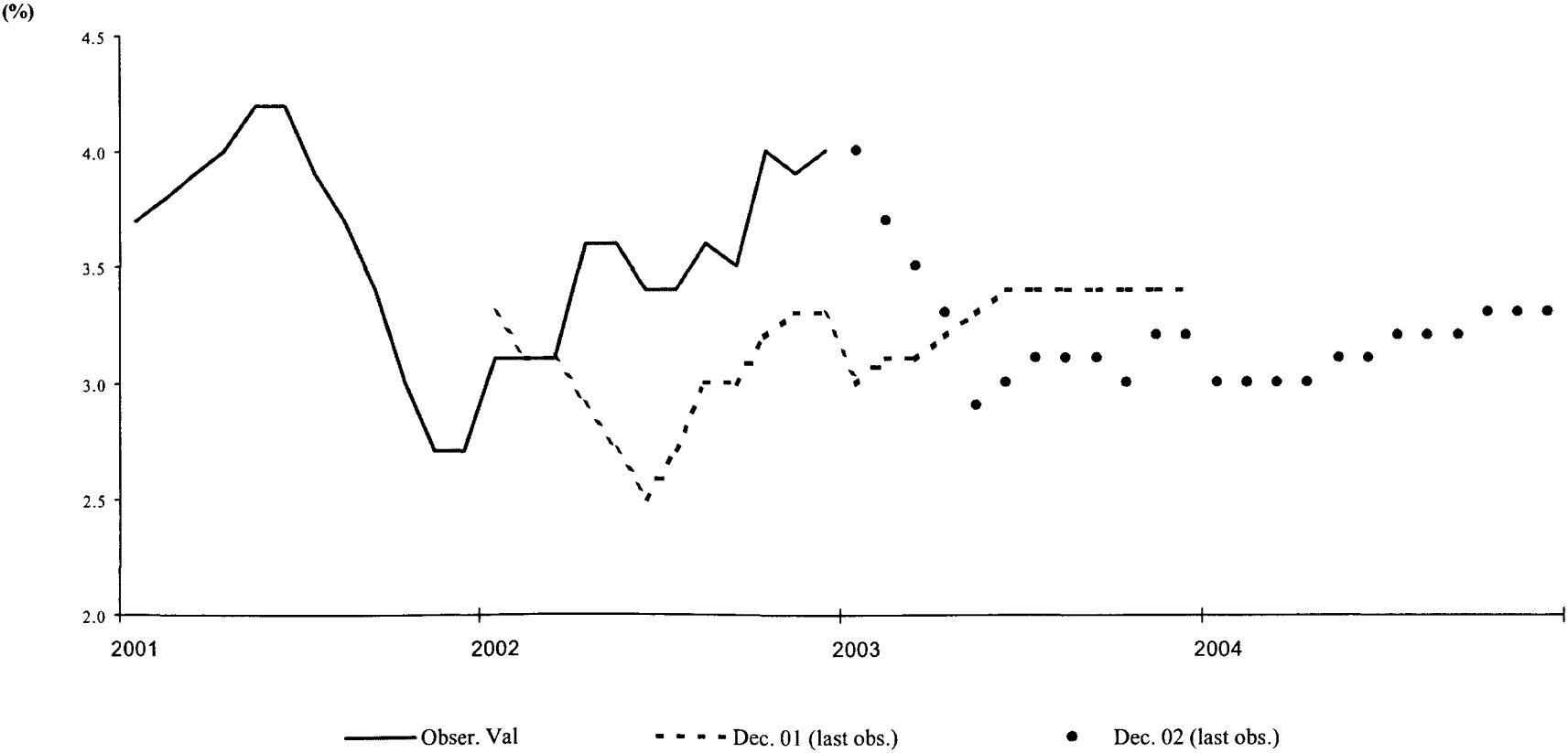
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INTERNATIONAL INFLATION FORECASTS

	JANUARY 2003		AVERAGE ANNUAL RATES				
	Monthly Rate	Annual Rate	2000*	2001*	2002*	2003	2004
ECONOMIC MONETARY UNION							
Total Inflation	0.2	2.0	2.3	2.5	2.2	2.0	1.8
Core Inflation	0.0	2.2	1.2	2.0	2.5	2.1	2.1
Goods	-0.4	1.6	0.8	1.6	1.9	1.6	1.6
Services	0.5	2.9	1.7	2.5	3.2	2.8	2.7
GDP				1.5	0.8	1.6	2.2
Private Final Consumption Expenditure				1.9	1.0	1.7	2.0
Gross Fixed Capital Formation				-0.7	-2.9	0.1	1.5
Exports of Goods and Services				2.8	1.3	6.0	6.2
Imports of Goods and Services				1.4	-0.2	5.6	5.9
Gross Value Added Total				1.5	0.8	1.6	2.2
Gross Value Added Agriculture				-1.2	-1.4	1.7	-0.5
Gross Value Added Industry				1.0	0.1	2.2	3.1
Gross Value Added Construction				-0.6	-1.6	-0.3	0.4
Gross Value Added Services				2.3	1.4	1.8	2.2
OTHER ECONOMIC INDICATOR							
Industrial Production Index (excluding construction)				-0.1	0.4	1.6	2.6
UNITED STATES							
Total Inflation	0.5	2.6	3.4	2.8	1.6	2.1	1.8
Core Inflation	0.3	2.0	2.4	2.7	2.3	1.9	2.0
Goods	0.1	-1.2	0.5	0.0	-1.1	-1.0	-0.6
Services	0.5	3.4	3.3	3.7	3.8	3.1	3.1

*Observed values.

SPANISH ECONOMY FORECASTS

	JANUARY 2003		AVERAGE ANNUAL RATES				
	Monthly Rate	Annual Rate	2000*	2001*	2002*	2003	2004
Total Inflation	-0.1	4.0	3.4	3.6	3.5	3.2	3.1
Trend Inflation	-0.6	3.2	2.5	3.5	3.4	3.1	3.3
Goods	-2.0	2.4	1.9	3.1	2.6	2.3	2.5
Services	1.2	4.2	3.5	4.1	4.3	4.3	4.4

*Observed values.