Interpreting inflation differentials in the euro area

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1. INTRODUCTION

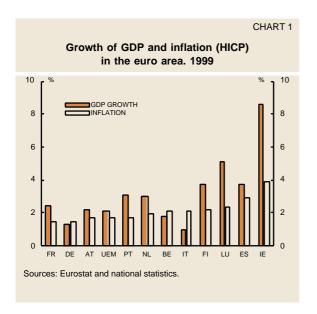
Since the start of Economic and Monetary Union (EMU), inflation differentials between the euro area countries have persisted, standing at around one percentage point in 1999. The differentials are relatively small and the evidence is that inflation differences on this scale are not infrequent between the regions of a country. But analysis of the determinants of divergent price developments between euro area countries is important for at least two reasons.

First, inflation differentials in the euro area may be due both to (i) factors relating to disequilibrium and rigidities in the economy, in which case greater inflation would translate into a loss in competitiveness; and (ii) to a process of real and productivity-related convergence by the less developed countries towards the European average, where the inflation differentials would not prompt losses in competitiveness or macroeconomic disequilibria. These interpretations give rise to opposing views on the nature [worrying in (i), more benign in (ii)] of inflation differentials in a monetary union.

Second, in a monetary union there is, by definition, no possibility of carrying out nominal adjustments domestically via monetary policy or the devaluation of the exchange rate. Were inflation differentials attributed to the more negative interpretation, i.e. were they to be associated with the existence of rigidities and disequilibria in the economy, there would be reasons for expecting the subsequent adjustment to have greater effects in real terms than when an autonomous monetary and exchange rate policy were in place.

This article considers the theoretical arguments behind the two foregoing interpretations so as to assess as far as possible the nature of the inflation differences observed since the adoption of the single currency.

One conclusion to emerge from the analysis is that the inflation differentials observed have arisen from both favourable and unfavourable factors, the relative significance of which is, unfortunately, difficult to quantify. In general, sustained processes of real convergence can be affirmed to be accompanied in the medium term by positive inflation differentials in relation to the more developed countries of the area. However, if the differentials are excessive, in that they reflect the influence of the inadequate function-



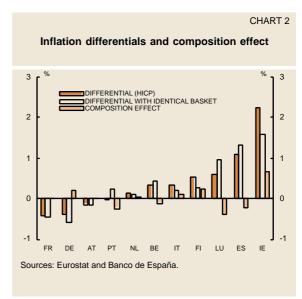
ing of markets or of demand-side disequilibria, convergence may be jeopardised.

2. THE MEASUREMENT OF INFLATION AND THE COMPOSITION EFFECT

Chart 1, to which reference will be made throughout the article, shows inflation in 1999 as measured by the Harmonised Index of Consumer Prices (HICP), along with the growth rate of each country. The chart illustrates that it is generally those countries that are most growing which have higher inflation rates.

Before turning to the theoretical factors behind these differentials, it is worth highlighting some technical aspects that may have a bearing on the measurement of inflation differentials between euro area members.

The reference inflation rate in the euro area is given by the changes in the HICP. This index seeks to place on a uniform footing the list of goods contained in the national CPI baskets, which show substantial disparities in some cases. Harmonisation does not mean, however, that the weight of each of the goods in the consumption basket is equal across countries. Indeed, as is the case in the regional CPIs in Spain, the weight of each good aims to reflect its proportion in relation to household spending in the geographical area in question, in this case the euro area countries (1).



Different weights mean that, although the prices of each good grow at the same rate in all the countries, the resulting aggregate inflation may differ across countries owing to the differing composition of the baskets. This *composi* - *tion effect* may, if very significant, ultimately distort assessment of inflation differentials, since higher inflation in one specific country might not derive from a greater general increase in prices but from the fact that goods whose prices have most increased have a greater relative weight in the consumption basket of that country.

Chart 2 offers information that is broadly illustrative of the relevance of this composition effect for the actual inflation differentials between the euro area countries in 1999. The first column gives the inflation differentials as measured by the HICP; the second column the differentials that would arise if countries' weights in each of the five major goods groupings were the same; and the third column the composition effect, which is simply the difference between the first and second columns. As can be seen, the composition effect is not, in general, very significant, accounting for only 14 % of the variance of the differentials observed. Nonetheless, this effect is of some degree in the case of Spain (-0.2 %), Luxembourg (-0.4 %) or Ireland (+0.7 %) (2).

In sum, the composition effect may, in some cases, be a factor for consideration in explaining inflation differentials. But it is not fundamental since inflation differentials persist after con-

⁽¹⁾ Thus, for instance, the weight of unprocessed goods in the HICP is substantially greater in Spain than in the euro area aggregate (16.3 % against 8.97 %), while it is less in services (30 % against 36 %).

⁽²⁾ The negative composition effect in Spain is essentially due to the lesser weight of two of the groupings with bigger inflation increases over the past year, namely services and, in particular, energy goods.

sidering this effect, as the second column in Chart 2 shows.

3. THE CONVERGENCE HYPOTHESIS

Once demonstrated that the means of measuring inflation in the area does not substantially affect the scale of the differentials, the underlying theoretical arguments can be addressed.

Despite it being broadly acknowledged that inflation entails costs that reduce the economy's growth capacity, there are theoretical arguments with a degree of empirical backing which help show that, in a monetary union, greater growth can give rise to positive inflation differentials (3). So viewed, inflation differentials may be considered as inherent to convergence and integration processes like those currently under way in economies such as Spain's. And, therefore, the possibility that these differentials may be reflecting the economy's structural or competitiveness-related problems can be ruled out. These arguments are set out briefly below, with the associated critiques being assessed.

3.1. Income and price-level convergence

The first argument departs from the observation that countries with a higher level of income also tend to have the highest price levels. If the poorer countries were to converge in real terms towards the European average, their prices would likewise be expected to level. As the exchange rate is irrevocable between the euro area countries, price-level convergence for these countries would mean a continued, positive differential vis-à-vis the European average until the convergence level were reached. In a recent study the European Commission (1999) calculated that if the Spanish economy were to reach 90 % of the average income of the European Union over the next ten years, the average inflation differentials in relation to the area would be around 1.5 % per annum over the course of that period (4).

The correlation between the level of income and the level of prices is, however, far from perfect. Examples such as that of the United States, whose price level is slightly lower than that of the European Union while its per capita income is considerably higher (5), or the patent price differences between Spanish provinces with similar income levels, show that the argument should be qualified on certain occasions. Generally, however, both variables are expected to be positive and significantly correlated.

3.2. The Balassa-Samuelson model

The debate on the assessment of inflation differentials in the euro area has turned predominantly on a model developed almost forty years ago by Bela Balassa and Paul Samuelson to explain why countries with a lower income level have a lower prices level. Given its theoretical relevance in this context, it is worth setting out the model's arguments in some detail.

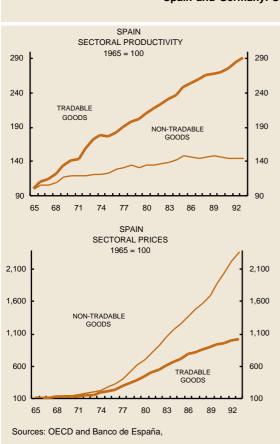
As a starting point, two sectors in the economy should be distinguished. On one hand, a tradable goods sector which is therefore *ex posed* to foreign competition, whose prices are essentially determined on international markets (e.g. manufactures). And on the other, a nontradable goods sector (encompassing most services), *sheltered* from foreign competition and whose prices are determined domestically.

Departing from this distinction, Balassa and Samuelson observed that productivity tends to grow more in the exposed sector than in the sheltered sector, owing to the fact that the former is generally more capital-intensive and, therefore, benefits more from technological progress. This characteristic, along with the condition that real wages in the long run in each sector grow approximately at the sector's productivity rate and the observation that nominal wages tend to grow uniformly economy-wide

⁽³⁾ It should be stressed that, as is explained below, the causation mechanism in this case is inverse and of the opposite sign to that of the theory of inflation costs: it is not inflation that affects growth but greater growth which, endogenously, generates greater inflation. In any event, both types of argument are compatible with one another in practice. In deed, although empirical research on the cross-country relationship between growth and inflation shows that the relationship is weakly negative, consideration of the relationship between both variables in a context of fixed exchange rates, i.e. in a similar setting to that of EMU, shows that it is not possible to find a significant relationship between inflation and growth in the medium and long run. See Andrés et al. (1996).

⁽⁴⁾ The European Commission study made these projections using income measured in terms of purchasing power parity. It would be more correct to make the comparison in terms of euro since, in future, income convergence will be in the common currency. If this were done, the inflation differentials would widen appreciably, as income divergence in the area is greater when measured in terms of euro.

⁽⁵⁾ These data arise from the purchasing power parity calculations by the OECD. According to these data, per capita income in the United States was 42 points above the EU average in 1997 and prices 5 points lower.



Spain and Germany. Sectoral productivity and prices

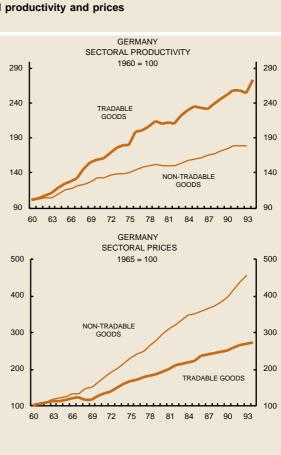


CHART 3

(owing to the mobility of the labour factor or to the common wage bargaining mechanisms in the various countries), helps explain the existence of sectoral inflation differentials.

The greater productivity in the exposed sector pushes nominal wages across the whole economy upwards in such a way that, if real wages are to reflect appropriately the sectoral productivity gains, the prices of non-tradable goods must outgrow the prices of tradable goods. This is how a *dual inflation* situation arises.

Understandably, this dual inflation is *not*, in principle, a problem since it arises from the differing rate at which the sectors assimilate technical progress, i.e. from supply-side factors acting in the long run, and there is thus no underly-ing macroeconomic disequilibrium.

If it is accepted that real convergence processes are underpinned by productivity gains in the tradable goods sector, inflation in the sheltered sector will be greater in the countries with higher growth. That likewise entails higher aggregate inflation, since inflation in the exposed sector will be similar to the rest of the euro area owing to competition.

The following charts illustrate the empirical significance of the model's hypothesis, according to which the higher productivity growth in the tradable goods sector should make for higher price growth in the sheltered sector in the long run.

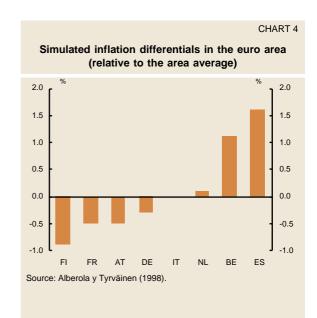
Chart 3 plots sectoral prices and productivity for Spain and Germany. It can indeed be seen how the greater thrust of the productivity associated with tradable goods runs parallel to the higher price growth of goods in the sheltered sector. The same result recurs for all the euro area countries. With this evidence, and after testing more rigorously the Balassa-Samuelson hypothesis for eight European countries, it has been possible to perform an exercise that enables the inflation differentials in the area resulting from extrapolating past trends in sectoral productivity to be simulated. The results are offered in Chart 4. The range of the differentials can be seen to be similar to those currently in place, and Spain has an estimated positive differential of around 1.5 %, which is also consistent with the findings of the above-mentioned European Commission study (6).

The Balassa-Samuelson model has also been the subject of certain critiques. Although Chart 3 shows that the expected relationship between sectoral productivity and prices is satisfied, it has sometimes been argued that another empirical regularity derived from the model, the growth of the proportion of tradable goods to output, far from holds. In fact, economic growth has been associated in recent decades with the increasing weight of services in total economic activity, entailing a substantial lessening of the relative importance of the tradable goods sector. However, this fact does not refute the Balassa-Samuelson hypothesis. The increasing share of the service sector in the economy is a reflection of how consumer preferences evolve as their income levels rise. For one thing, the demand for services relating to leisure, such as tourism and eating out, tends to increase; for another, social demands in terms of education and health (which are services) are usually greater. Conversely, the Balassa-Samuelson model only looks at developments on the supply side of the economy, while the phenomenon of the increasingly service-based economy primarily affects sectoral demand. The joint consideration of both types of factors would enable the greater growth of the relative prices of non-tradable goods to be reconciled with their growing importance in aggregate output.

In any event, these types of demand considerations are along the right lines as they suggest that changes in relative prices may not depend solely on changes in sectoral productivity but may also be linked to other factors which, as indicated later in this article, may influence the interpretation of inflation differentials.

3.3. Economic integration and price convergence

The last argument is based on the deepening of the process of economic integration associated with EMU. Although the prices of tradable goods are generally set by international competition, this does not mean their level can-



not differ from country to country. Various external or domestic charges and other trade, legal or cultural obstacles may make the prices of very similar goods differ. Further, the denomination of prices in different currencies according to the point of sale may hamper international comparison, especially if associated with high exchange rate volatility.

In the euro area, the single currency will reinforce arbitrage mechanisms, undoing –at least partially– the factors hindering the equalisation of price levels. The prices of tradable goods will thus tend to converge towards lower levels (7).

Hence, somewhat paradoxically, price convergence may exert a perverse effect in terms of inflation for the countries whose initial price levels are lower. For example, if German car prices converge towards the lower prices of Spanish cars, this component of German inflation will be negative, prompting a positive inflation differential between Spain and Germany. Accordingly, the greater economic integration stemming from the Monetary Union may induce higher inflation rates in the countries with lower price levels.

3.4. Inflation differentials and competitiveness

An increase in relative prices with respect to the external sector is generally, though not al-

⁽⁶⁾ For further detail see Alberola and Tyrvainen (1998). In keeping with the spirit of the model, these results indicate long-run trends in inflation and are only an approximate guide, since past trends may prove not to be an adequate indicator of future trends and EMU itself may prompt changes in future sectoral productivity.

⁽⁷⁾ Price convergence is likely not be complete since the quality and characteristics of products may differ, owing to the different technologies used and to national differences in consumer preferences.

ways correctly, identified with a loss of competitiveness in the economy. Without the possibility of exchange rate adjustments, the worsening of relative prices is reflected in inflation differentials. However, inflation differentials do not entail competitiveness problems if they arise as a consequence of any of the effects described in the foregoing sections.

First, in the case of the arguments relating to the equalisation of price levels and also under the Balassa-Samuelson model, inflation differentials can be justified in terms of productivity gains, without the relative prices of the goods of the sector exposed to foreign competition having to rise.

Second, in the event that monetary union leads to greater price transparency, there will be an initial gain in competitiveness, which will subsequently disappear as product prices rise. Returning to the previous example, the comparison of car prices in euro, together with the reduction in obstacles to cross-border sales arising from progress towards the Single Market, would entail a higher demand for Spanish vehicles. This higher demand is equivalent to a gain in competitiveness, associated in this case, not with relative prices (which, in principle, do not change), but with the fall in the trade barriers which were obstructing price competition. As prices converge, these gains in competitiveness will disappear, and the previous competitive position will be restored.

In short, the existence of certain inflation differentials within the Monetary Union should not necessarily be seen as a signal of disequilibrium or loss of competitiveness, since it may be compatible with macroeconomic stability and with the absence of significant disequilibria. At the same time, the empirical evidence shows that the inflation differentials observed, of around one percentage point, approximately correspond to what would be expected in accordance with the arguments considered.

Nonetheless, it can only be inferred from this conclusion that under certain circumstances inflation differentials within a monetary union are not a cause for concern. We shall now describe the situations in which they are.

4. THE DISEQUILIBRIUM HYPOTHESIS

There is no doubt that the existence of a single monetary policy and the consideration of the factors mentioned entail a change in the conception of the inflationary process within a monetary union. This new conception, however, does not mean that other demand and structural factors, which have traditionally served to explain the inflationary mechanisms of an economy, have disappeared. When these factors are considered, the view of inflation differentials may be qualified or modified, possibly to become less benign. Consequently, it is worth developing these arguments in more detail.

4.1. Macroeconomic disequilibria

The first factor to be considered is the existence of macroeconomic disequilibria, and in particular, excessive demand pressure. Aggregate supply is usually considered to be relatively inelastic in the short run. Accordingly, an increase in domestic demand, arising from improvements in the economic outlook or from a healthier employment situation, will tend to generate two effects: upward pressure on domestic prices and higher demand for imports, with the consequent deterioration in the external position. The increase in inflation, in this case, is not the result of a rise in productivity, and therefore the worsening of relative prices with respect to the external sector entails a loss of competitiveness for the economy. This, in itself tends to exacerbate external disequilibria.

The pressure of demand is, in the first instance, a consequence of the cyclical position of the economy. However, the fall in competitiveness it generates may have long-term effects on economic activity (hysteresis). These effects will be all the more important, the greater misalignment of relative prices and the longer it continues. The accumulation of losses of competitiveness over an extended period makes it hard to maintain exports, while being conducive to lasting import penetration. In the medium run, if the losses of competitiveness are not corrected, then the foreign and domestic markets for some products may be permanently lost, damaging future prospects for economic growth.

It is important to stress that monetary union has radically changed the traditional adjustment mechanisms in the economy. First, the exchange rate's irrevocable nature means that the correction of accumulated losses of competitiveness is only possible through the adjustment of domestic relative prices. If the rigidities hampering such adjustment persist, then the correction may only take place after costly adjustments in terms of employment and activity. Second, it can also be argued that monetary union enables external disequilibria to be financed more easily and for longer periods. This is because such disequilibria no longer affect interest rate spreads through the exchange risk premium, as this premium is by definition zero.

The loss of such traditional stabilisation mechanisms under monetary union makes a soft landing for the economy all the more difficult.

It may be conjectured from the foregoing that since, inside monetary union, losses of competitiveness do not activate the traditional adjustment mechanisms, they may be more pronounced, worsening the effects of hysteresis and leading to a more drastic and costly adjustment in real terms.

4.2. Market rigidities

The effects of demand pressure on prices and activity depend, among other factors, on the degree of rigidity in factor and product markets. The greater the rigidities in goods and labour markets, the more demand pressures will tend to be passed through to prices and wages.

It should be recalled that the cornerstone of the Balassa-Samuelson model is the existence of a trade-off between sectoral productivity growth and prices. However, this relationship may not be the result of a healthy process of real productivity convergence; rather it may stem from problems of competition and market rigidities.

This problem of identification may be illustrated by an example. With an irrevocable exchange rate and a situation of excess demand, if labour-market rigidities or wage bargaining mechanisms generate excessive wage pressure, firms will attempt to pass wage rises through to prices. This may be relatively easy in the sheltered sector, but in the sector exposed to competition, once the scope for reducing margins has been exhausted, there will be losses of competitiveness. The eventual result of this process is likely to be higher inflation in the sheltered sector and, in the exposed sector, an increase in apparent labour productivity, reflecting the necessary adjustment in output and staff, once the scope for adjusting margins has been exhausted.

Note that this example gives exactly the same results as the Balassa-Samuelson model: dual inflation accompanied by inter-sectoral productivity differentials. However, their interpretation is completely the opposite and, certainly, a much more familiar one, involving a lack of competition in goods markets and insufficient flexibility in the labour market.

Chart 5 illustrates this type of situation in the case of the Spanish economy. During the economic crisis in the late seventies and early

eighties, relative income in Spain fell considerably, while relative productivity was moving towards the European average (8). Underlying this apparently paradoxical result is the destruction of employment that took place in the Spanish economy during this period. By contrast, the subsequent real convergence has been accompanied by a fall in relative labour productivity. Market rigidities and imperfections help to explain the changes in apparent labour productivity and, therefore, why the inflation differentials associated with productivity convergence are largely a reflection of structural problems in the economy.

In sum, as the two theories considered give rise to the same behaviour, there is a risk that positive inflation differentials will be seen as benign, when in fact they stem from structural problems in the economy. At the same time, although income convergence can be expected to be accompanied by productivity convergence in the long run, in the case of Spain, real convergence can only be achieved if it involves a considerable rise in employment. This is reguired not only to reduce the gap in relative unemployment rates but also to equalise the activity rate, which is substantially lower than in the rest of Europe. Accordingly, the rate of productivity convergence will tend to be lower than that of income per capita. This would help to moderate the inflation differentials that, according to the Balassa-Samuelson model, are associated with this process.

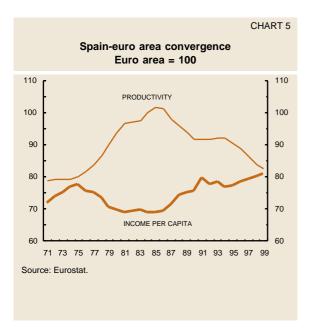
5. INTERPRETATION OF OBSERVED INFLATION DIFFERENTIALS

Having outlined these opposing views of inflation processes in a monetary union, it is worth tentatively assessing the nature of the inflation differentials currently observed in the euro area and, in particular, in Spain.

Chart 1 showed that the highest inflation is currently seen in those countries with the highest growth (9). However, this result does not enable the type of factors operating predominantly to be identified. On the basis of the Balassa-Samuelson hypothesis, supported by Chart 3, the inflation differentials could reflect a process of real convergence that is benefiting

⁽⁸⁾ It is difficult to accept that Spanish productivity was higher than the European average in 1985 and 1986. In fact, the use of apparent labour productivity gives a rather imprecise idea of actual levels of productivity.

⁽⁹⁾ In fact, a regression analysis of the chart data reveals a statistically significant positive relationship between inflation and the growth rate.



countries such as Spain. On the other hand, a less benign view would support the argument that it is excess demand that is generating inflationary pressures in the more dynamic countries and that, in some cases, such pressures may be exacerbated by the rigidities in factor and product markets.

In practice, it is extremely difficult to identify at any given moment what role is being played by each explanatory factor. The possible longrun determinants are distorted by the cyclical position of the economy and, furthermore, as seen above, the theoretical arguments themselves are subject to significant caveats. However, solely for the purposes of illustration, it is possible to attempt to assess the extent of both types of factor in the current economic juncture, starting from the relationship between growth and inflation for 1999, depicted in Chart 1, and considering the present situation of the European economies.

Specifically, two elements can be distinguished in a country's growth: a structural component, associated with the economy's potential growth rate, and a cyclical component, which can be approximated by the output gap (i.e. the difference between the actual and the potential levels of output) (10). The structural component gives an idea of the trend growth rate and would therefore explain, in a tentative approximation, the inflation associated with long-term convergence processes. By contrast, the output gap is related to the cyclical position of the economy and therefore gives an indication of the inflationary pressures associated with excess demand in the economy. In the long run the inflation differentials can be expected to be determined by the structural component, while in the short run the demand component dominates.

Currently, all the countries with higher inflation, such as Ireland, Spain, Luxembourg and Finland, have a positive output gap, suggesting the possible existence of demand pressures in these countries. However, these countries are also those with a higher *potential* growth rate, which would support the productivity hypothesis implicit in the Balassa-Samuelson model. Accordingly it can be argued – with many caveats given the characteristics of the data – that the inflation differentials during the first year of Monetary Union may be interpreted both in terms of the convergence hypothesis and in terms of the disequilibrium hypothesis.

A more in-depth analysis of which type of element is dominating could be based on an evaluation of the degree of compliance with the assumptions of the Balassa-Samuelson model. In particular, the model requires income convergence to be accompanied by productivity convergence and that the latter, in turn, generate a larger gap between productivity growth in the sectors exposed to and sheltered from foreign competition.

Chart 6 shows the results of such an analysis, comparing inflation and productivity growth in Spain relative to the euro area as a whole between 1997 and 1999, when the exchange rate was practically fixed. In a first approximation, the cumulative inflation differentials (2 % in the three years) could be justified by the higher rate of growth in Spain in recent years (more than 4 % above the rate for the area as a whole). However, this income convergence, has not been accompanied by convergence in apparent labour productivity, which has been less dynamic in Spain than in the area as a whole. Nor are changes in sectoral productivity consistent with productivity convergence. The factor explaining this divergence between the relative growth of income and of productivity is the high rate of employment creation in Spain in recent years. This has led to cumulative employment growth relative to the euro area as a whole of close to 7 % (11). The buoy-

⁽¹⁰⁾ The potential level of output is defined as that at which the effective resources of the economy are fully and efficiently used. Potential output and its growth rate is determined therefore by productive capital, the effective supply of labour and accumulated technical progress in both resources. When actual and potential output are the same, supply is equal to demand and the economy is therefore free from inflationary pressures.

⁽¹¹⁾ The buoyancy of employment in Spain has been particularly notable in manufacturing, a sector that has suffered from declining levels of employment in Europe. These factors explain the significant sectoral productivity gap apparent in Chart 6.

ancy of employment has cyclical components, although the recent labour market reforms may also help to explain the strength of employment creation. On the other hand, the growing trade deficit, the rapid expansion of lending and the inflationary pressures evident in certain sheltered sectors (housing, hotels and catering, etc.) suggest that demand pressures are present in the current cyclical upturn.

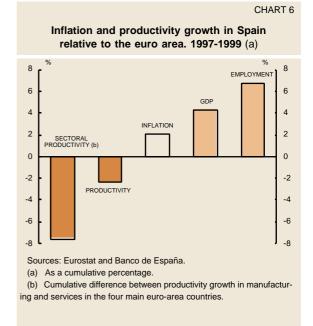
In sum, it is possible to argue that the inflation differentials currently seen in Spain could be reflecting both real convergence of the Spanish economy and demand pressures associated with economic expansion. The latter cannot be completely absorbed by supply without strain on prices, owing to the persistence of certain structural rigidities in the markets.

It is impossible to identify even approximately what proportion of the differential is accounted for by each factor. It is clear, however, that inflation differentials of around one percentage point should not be interpreted too complacently. To some extent they are originating from demand pressures and may be contributing to the accumulation of losses of competitiveness that are capable of generating unfavourable real effects in the medium run.

6. CONCLUSIONS

Inflation is normally considered to have a negative impact on welfare. However, economic theory provides sound arguments for thinking that in a monetary union positive inflation differentials need not necessarily have adverse effects and may even be interpreted in a positive light, provided that they are associated with productivity-based growth. Nonetheless, inflation differentials within a monetary union may also frequently reflect negative factors such as rigidities in the workings of markets that exacerbate the inflationary effects of demand pressures. Since growth tends to generate demand pressures, it is possible that both types of factor are simultaneously at work, but it is extremely difficult to determine the extent to which observed inflation differentials are cause for concern or benign.

In the event that inflation differentials are excessive, in the sense that they cannot be solely explained by productivity growth, but must also stem from the negative factors mentioned above, they may have lasting effects on the economy's competitiveness. With the loss of the exchange rate, it could be conjectured that the real effects of losses of competitiveness may be relatively greater within the Monetary



Union, hampering or even reversing real convergence.

In the case of Spain, sustained real convergence will in all likelihood require an increase in the relative productivity of labour, which could in turn generate positive inflation differentials with respect to the rest of the euro area in the long run.

However, in the short and medium run it is possible, probable and even desirable that growth be based on greater use of the underutilised factor, namely labour. If this were the case, convergence would not require substantial gains in labour productivity or, therefore, significant inflation differentials. In this context, the observation of inflation differentials that are relatively high and persistent in the short run should be seen as a possible symptom of excessive demand pressure. The greater the rigidities that persist in factor and product markets, the greater the impact this pressure will have on inflation.

From a policy viewpoint, these reflections suggest two kinds of measure to reduce the inflationary bias of growth: (i) measures aiming to improve the utilisation of the labour factor; and (ii) measures to liberalise and open up to competition those sectors in which anti-competitive behaviour still persists. The first kind of measure would enable increases in relative factor productivity to be less than the relative growth in income per capita, moderating the inflationary effects of sectoral productivity growth. The second kind would restrain prices in general and would avoid demand pressures being readily translated into higher inflation. At the same time, although fiscal policy should basically be medium-term oriented, it would be advisable to use any available leeway to avoid an increase in demand pressures.

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