

**EUROFRAME-EFN**

***THE ITALIAN ECONOMY SINCE THE  
START OF THE  
EUROPEAN MONETARY UNION***

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The Italian experience since the introduction of the EMU, with a particular focus on the reaction to shocks, is the subject of this paper. While there are several publications dealing with Italy's convergence process towards the EMU in the nineties, much less attention has been paid to the experience of the last few years, which on the contrary can be very interesting as an example of how the reactions to shocks take place within a monetary union.

With the Italian experience in mind, the last six years can be characterized as follows. Since the launch of the euro, the European economies have been hit by several shocks, of different types:

- the increasing competition in the international manufacturing goods markets coming from low wage countries;
- the oil price shock;
- the cash changeover.

These three shocks occurred in an economic policy context different to that of the nineties: the exchange rate has been fixed within the Euro Area but, on the other hand, interest rates have reached an historical low.

This is the context in which we can look at the Italian experience, which might be interesting for a number of reasons. First of all, Italian exposure to manufacturing is high compared to other European countries. With the exception of Germany, the manufacturing value added in GDP is still higher in Italy than in most of the euro area countries. In addition, Italy has always been an export-led economy, and the exchange rate policy has been extensively used in the past in order to restore losses in competitiveness. So, the new exchange rate regime could have affected Italy more than other economies.

As far as the oil price and the cash changeover shocks are concerned, the Italian experience can be interesting because Italy is supposed to have an inflationary bias.

In general, due to the high public debt, the room for discretionary fiscal policy has been quite narrow, hence, as a whole, Italy has had a very limited number of tools to absorb the shocks.

## **1. *Italy's performance since the start of EMU***

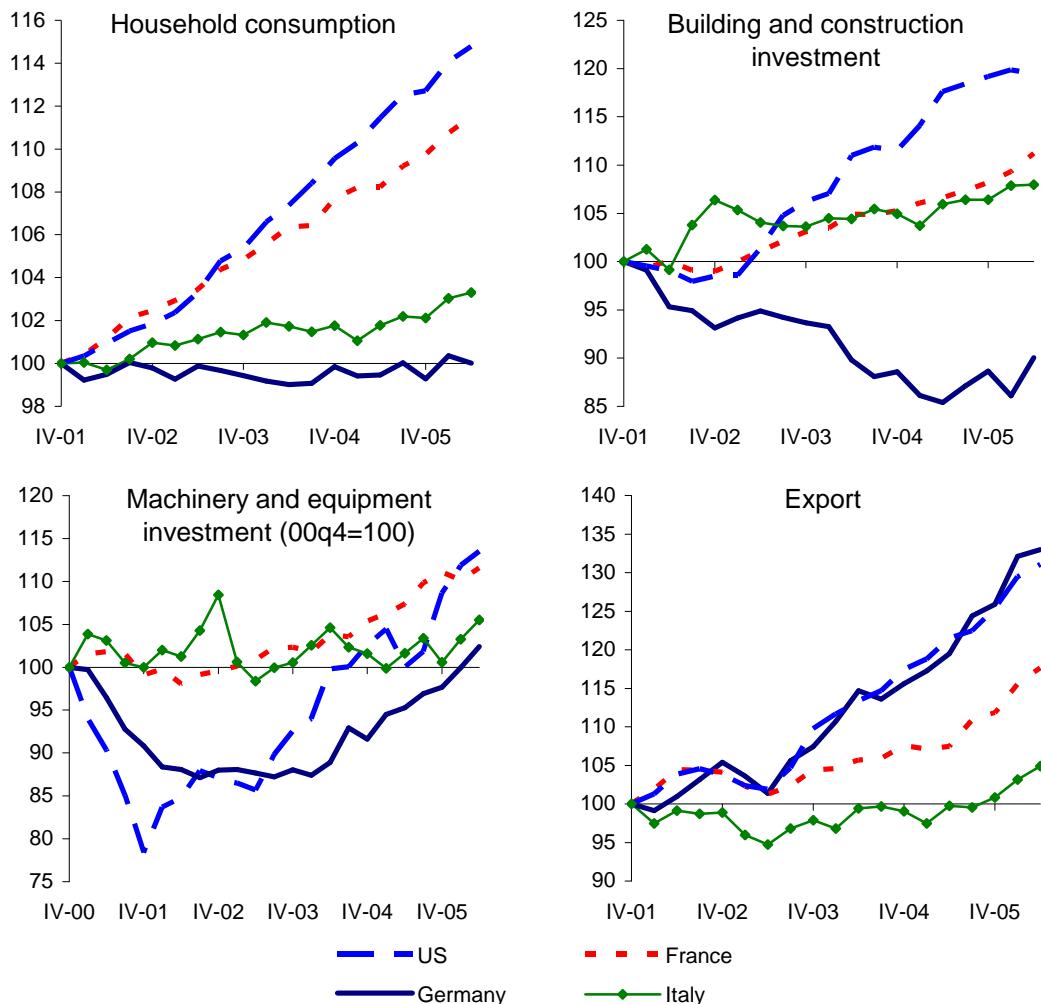
If we look at the most general macro indicators, inflation and GDP growth, and compare the Italian performance with that of the euro area, we can easily see that, as far as consumer price inflation is concerned, Italy's differential, that was 1.3 percentage points on average in the nineties, reduced to 0.3 pp in the period 2000 to 2005<sup>1</sup>.

On the contrary, the Italian GDP growth gap was negative and has remained almost stable over

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<sup>1</sup> Inflation in the Euro Area was 2.1 per cent and 2.2 per cent in the two periods respectively.

Figure 1 – Business cycle in comparison (2001q4 = 100)



the last six years (-0.55 percentage points in the nineties, -0.59 afterwards)<sup>2</sup>.

All in all, the situation does not look so bad: inflation narrowed its gap substantially and the negative gap in GDP growth increased only slightly.

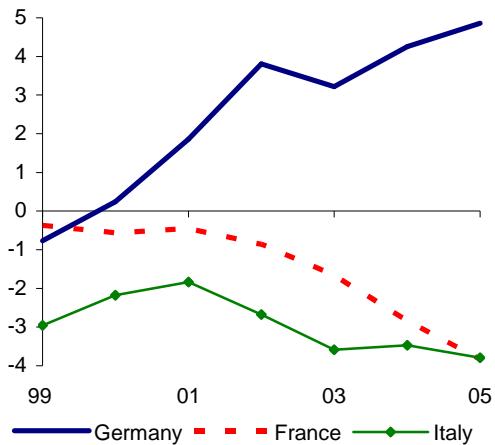
So, why does everybody complain about a poor Italian economic performance? There are two non alternative answers. The first is that the disappointment was mainly due to high expectations: the so-called EMU dividend. The Italian GDP growth, at the end of a long period of very restrictive monetary and fiscal policies, was expected to reach the European level, after joining the EMU. The second answer is related to the composition of growth. Italian growth was as low as in Germany, but the composition was quite different. Let us focus on this kind of answer.

Figure 1 describes the evolution of the components of GDP along the business cycle in Italy,

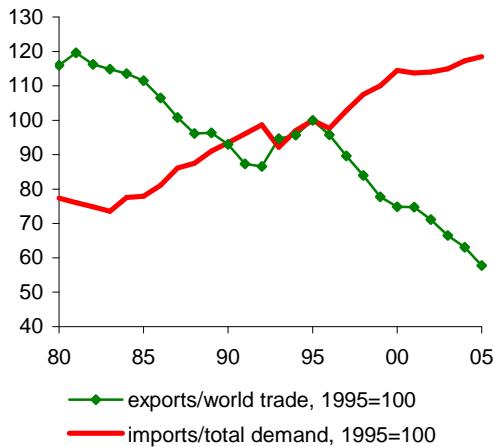
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<sup>2</sup> In the same period, the euro area GDP growth was respectively 2.0 per cent and 1.7 per cent.

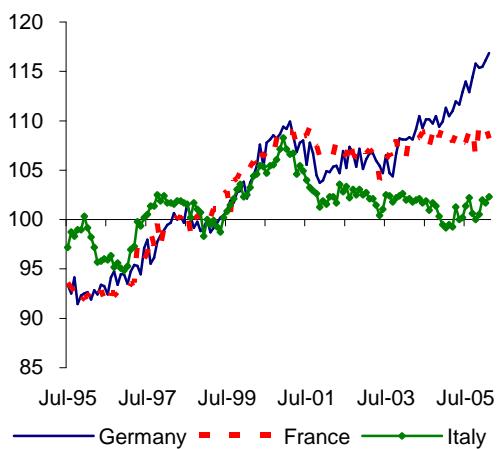
*Figure 2 Net trade contribution to GDP growth cumulated (percentage points)*



*Figure 3 Export and imports*



*Figure 4 Industrial production (Jan 1999 = 100)*



France, Germany and, for comparison, in the US.

Italy's performance does not compare so badly with respect to household consumption and building investment: Germany had the worst performance in both of them, consumption increased more in France than in Italy, the performance of building investment was almost the same in the two countries.

The picture changes completely considering business investments and, especially, exports.

Regarding investments, the comparison started from 2000 in order to take into account the recession and the investment downturn which occurred in Germany, in the US and, to a minor extent, in France. It is clear from the graph that investment has picked up again in the US, France and, more recently, in Germany and in Italy. In Italy's case, investment has remained almost stable over the last 5 years, with two exceptions, due to some fiscal incentives.

Turning to exports, while Italian exports in 2005 were at the same level as in 2001 (some recovery can be seen in the last semester), German exports increased by 20 pp.

Another piece of evidence that the Italian problems are mainly due to exports stems from net trade (Figure 2). From the cumulative net trade contribution to GDP growth we can see that in Italy (as in France) net exports have "subtracted" 4 pp from GDP growth over the last six years, while in Germany GDP growth was increased by 5 pp. Net trade explained about 10 pp of difference in GDP growth rate between Germany and Italy. The result has been negative for France too (-0.4 percentage points), not only because of a weak growth rate of exports but also because of the sharp growth of imports driven by the increase of consumption and investments.

Focusing on Italy, we can see whether this result depends on exports or on imports. The increase of import penetration in the medium run is clear, but it is also clear that in the last five years the trend has stabilized. On the contrary, export share is on a declining trend (Figure 3).

Also the behaviour of industrial production suggests that the problem is in manufacturing, and this points again to exports. Whereas in the nineties Italian industrial production outperformed that of Germany and France, the opposite has been true since the year 2000 (Figure 4). After the recession, that was deeper in Italy, Italian industrial production followed a declining trend, whereas France, and especially Germany, recovered. Only in the last months, perhaps, we can see some sign of recovery, but it is still too early to say that manufacturing is really on an increasing trend.

Let us summarize the story.

Within the EMU, Italian GDP growth was sustained by building investments and household consumption, and depressed by business investments and exports. It looks like low interest rates influenced investments only in housing and left unaffected those in equipment and machinery. Given the strong correlation between investments and exports in Italy, the main point remains the performance of exports.

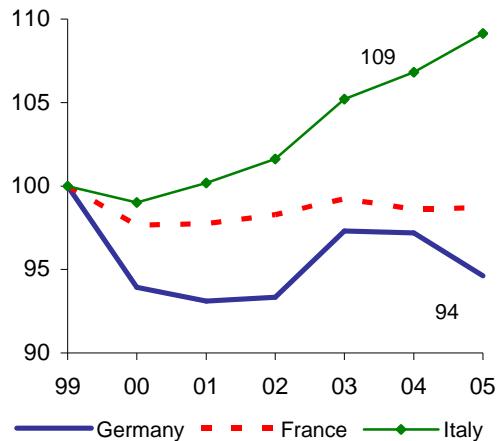
If we look at the German economy, we see a different story. The difference is in the role played by export, on one hand, and domestic demand, on the other. Within the EMU German GDP growth was sustained by exports, Italian growth by domestic demand. It looks like Germany and Italy followed two opposite paths of adjustment to shocks, even if GDP growth was almost the same and in both countries unsatisfactory.

Let us focus now on the real exchange rate behaviour. If computed in terms of unit labour costs<sup>3</sup> (see Chart 5), Italian loss of competitiveness in comparison to Germany was of about 15 pp. We can split the 15 pp into 2 attributed to the difference in growth of real wage, 7 to inflation, and 6 to the difference in productivity growth.

What does this comparison between the two different experiences tell us?

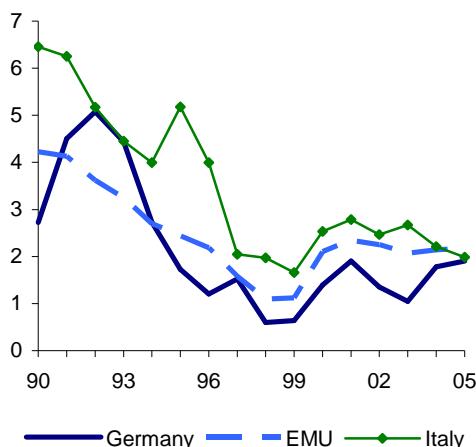
Since the start of the EMU, the nominal exchange rate of euro has appreciated, but the real effective exchange rate has differed among countries. The Italian real effective exchange rate appreciated (via higher inflation, higher nominal wage growth, lower productivity growth

*Figure 5 The real effective exchange rate  
(1999=100)*



<sup>3</sup> The data are from Eurostat.

*Figure 6 Consumer price inflation rate (%)*



because of the improvement in labour market performance), domestic demand growth outperformed export growth, the public sector balance worsened but not in response to a worsening of labour market conditions, as unemployment reached its lowest level in over 20 years.

On the contrary, the German real exchange rate depreciated, export growth outperformed domestic demand growth, the public sector balance worsened in response to a worsening of labour market conditions.

its potential growth is still an open question and there is some debate among economists. Dealing with this question would require much more discussion than we have room for here and we will therefore focus on inflation and productivity - that affect price competitiveness - and export specialisation - that is more related to quality competitiveness.

## **2. Inflation**

As far as inflation is concerned, we have already mentioned that the euro area experienced two shocks: the oil price shock and the cash changeover shock.

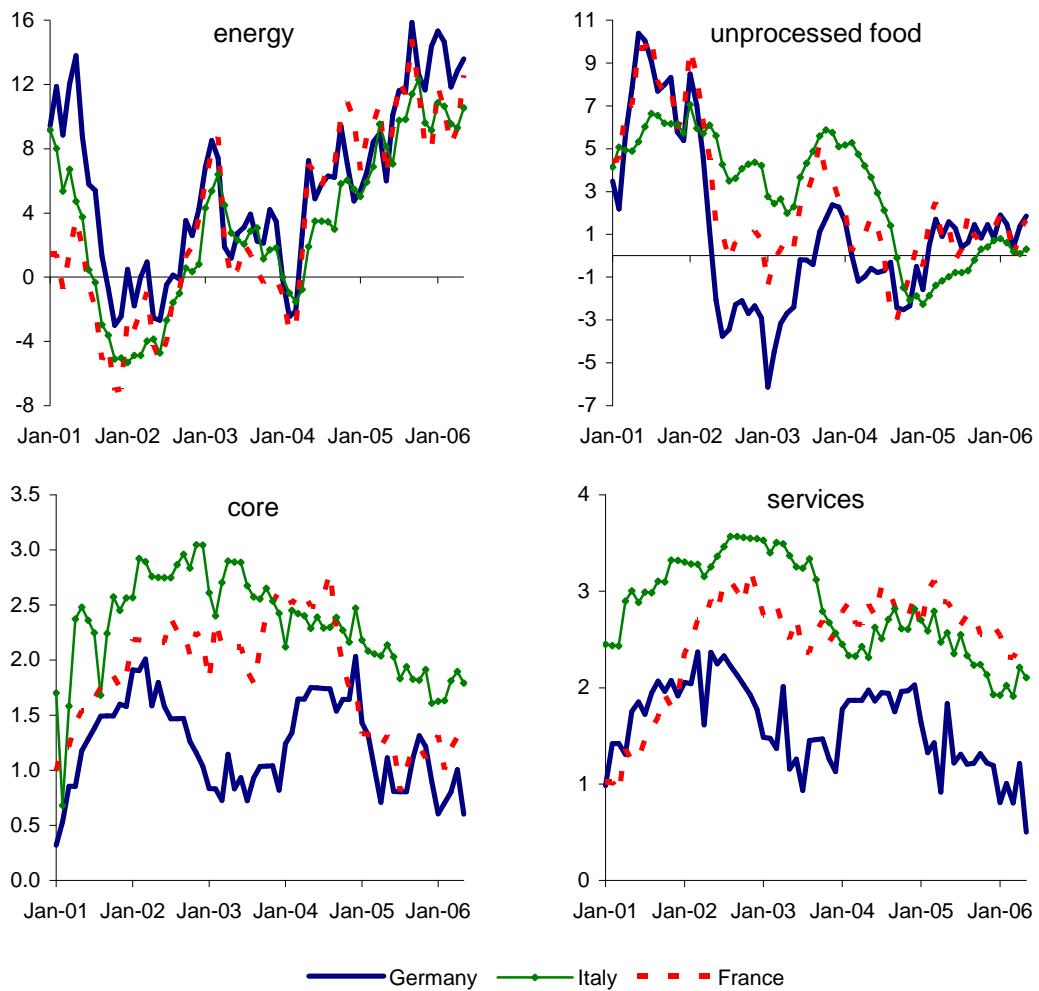
Inflation has been above 2 percent since the year 2000, after having reached the historical low of 1 percent in the euro area average during 1999. Italy experienced the same pattern but succeeded in keeping its inflation rate very close to that of the euro area and, last year, in falling below it (Figure 6). Notwithstanding this positive result with respect to the average, if we compare Italy to Germany we see that the gap is still open and the inflation differential cumulated since the start of the EMU is about 7 percentage points. Then, if in general Italian inflation can be considered under control and is no longer alarming, competitiveness with respect to Germany (the main trading partner of the Italian economy) still is. Let us see where this differential arises from.

Regarding the shock due to the cash changeover, four years later, some studies<sup>4</sup> have been published aiming at disentangling its effects and to assess whether, particularly, if the general public perception that the price increases were huge is correct or not. In general, the conclusion was that the introduction of euro coins and banknotes had only a limited impact on average prices, as recorded by official statistics, even if the effect was slightly above the euro area average. Actually, in 2002 and 2003 the inflation differential increased. More specifically, the studies based on micro data found that where the increases were higher (in restaurants, for

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<sup>4</sup> See Ghiotti - Lippi (2005).

Figure 7 – Harmonised consumer price inflation index in comparison



instance), this was mostly due to increases which took place before the changeover, reflecting costs and demand. In addition they found evidence that the increases were stronger in less competitive industries.

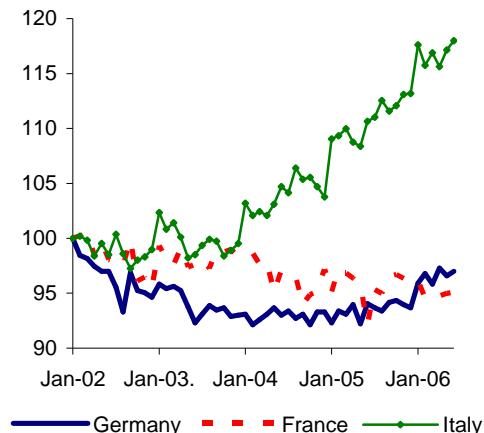
Thus, the Italian reaction to this shock points to cost components of prices and to market competition.

Regarding the reaction to the oil price shock, a comparison of price indices among countries (in particular Italy versus Germany and France) shows that the oil price shock exerted a smaller effect on the headline CPI in Italy. This is both due to a lower increase of consumer price of energy products (Figure 7) and to the weight of energy prices in the consumer price index, smaller in Italy than in the other European countries. In fact, notwithstanding the high dependence of the Italian economy on oil<sup>5</sup>, the industrial structure and the mild weather keep

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<sup>5</sup> It has to be remembered that Italy does not use nuclear power in electricity production, but only oil, natural gas and, to a much lesser extent, other natural resources such as hydro and solar power.

*Figure 8 Average unit export values  
(Jan02=100)*



differential is still present in the core inflation, and especially with respect to Germany. The convergence of Italian inflation towards those of France and Germany has been more due to volatile components rather than to the core ones, and this confirms that some problems may still exist.

A positive and increasing differential is still present in export prices as well, approximated by the average unit values (a.u.v.). In theory, the evolution of Italian a.u.v. should be closer to that of the other euro area because of the international competition and of the consequent “law of one price”, differences depending only on the pattern of goods exported by each country. In spite of a single currency, after 2002 the a.u.v. evolution in Italy has been very different with respect to France and Germany. In particular, in 2002-2005, the Italian a.u.v. grew, while both German and French ones reduced (Figure 8). Despite the appreciation of the euro, the Italian a.u.v. of goods delivered to non-UE markets have increased on average by 3.3 percent in euro, more than the increase of prices of goods for the domestic market, 1.8 percent for manufactured goods. This odd behaviour of a.u.v. could depend, among other things, on the change of export composition towards goods with higher value added<sup>6</sup>.

It is worth underlining that the gap among Italian and French and German a.u.v. reduces when another data source is considered. In order to allow the comparison among countries, Eurostat calculates different a.u.v., whose results are very different from that of the national data. As far as Italy is concerned, in 2001-2005 export prices increased less according to Eurostat than to ISTAT. The difference has been on average of 1.7 percentage points. Obviously, this difference produces conversely a higher estimate of export volumes.

The persistence of an inflation differential between Italy and Germany (we can skip the comparison with France, as the differences are much smaller) is certainly not due to differences in the cyclical position or in the monetary stance, at least as far as policy rates are concerned. At the same time, this can be associated only to a limited extent with a price level convergence process. If, in the past, price levels were lower in Italy vis-à-vis the other larger European

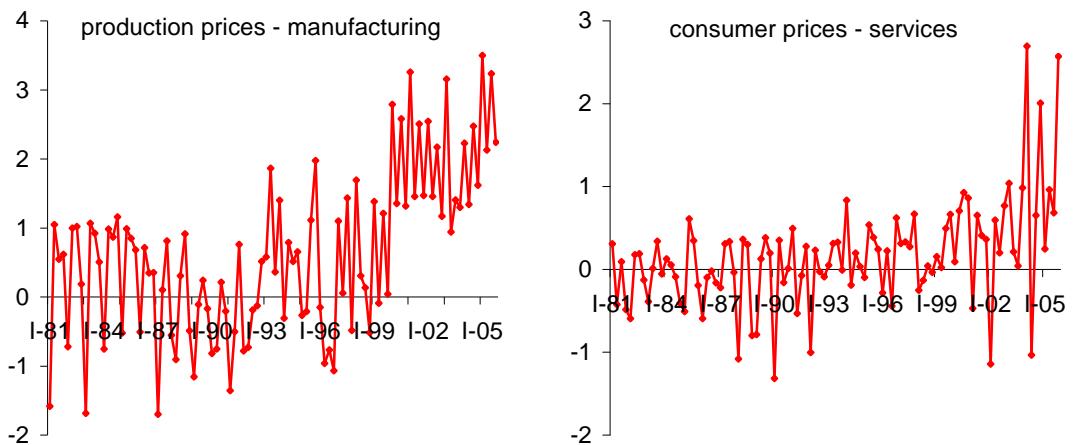
Italy's energy intensity lower than that of France and Germany. From this point of view, Italy is less vulnerable to oil shocks than France and Germany.

Another positive impulse to the reduction of inflation differentials has come recently from the other volatile component, that is prices of unprocessed food. After having contributed to keep Italian inflation above average in 2002 and 2003 (during the “mad cow” and the other agricultural crises), prices of unprocessed food have fallen in Italy since 2005.

Then, as is clear from the chart, a positive

<sup>6</sup> ISAE (2006).

Figure 9 – Residuals of Prometeia's quarterly model equations



economies, according to a different level of GDP per capita, the convergence process has recently been fostered by the introduction of euro coins and banknotes and can now be considered virtually achieved.

On the contrary, one can argue that part of the differential depends on the Balassa-Samuelson effect. According to this well-known effect, inflation differentials reflect equilibrium-restoring phenomena stemming from different productivity growth between the tradable and non-tradable sectors, and it is considered a natural consequence of the catching-up in income levels. In fact, lower productivity growth in sheltered activities, combined with productivity in the open sector growing faster than in the rest of the world, would result in higher inflation rates under the assumption of a certain degree of wage equalization across sectors. The problem is that the catching-up process of Italian GDP is virtually over, but services are still characterised by lower productivity growth and higher inflation (as chart 7 and Table 3 below show).

Therefore, attention has to be given to other structural determinants, namely wage setting, productivity growth and mark-up behaviour in a context of insufficient degree of competition, especially in the sheltered sectors. Actually, most of the analysis referring to Italy identify the malfunctioning of goods and labour markets as one of the main reasons for the persistence of the inflation differentials.

Some signs of improvement can be seen in recent years. Even if a positive differential is still present in core inflation, so far first and second round effects of the oil price shock have been very small and probably lower than in past experiences. Because the time is too short to detect a statistical significant break, we looked for other sources of evidence and studied the residuals<sup>7</sup> of the price equations estimated in Prometeia's quarterly model for the Italian economy. Actually, there are signs of a structural break in the behaviour of some prices (Chart 9). Interestingly, they are the production prices of manufacturing, where the international competition is probably reducing mark-ups, and the consumer prices of services.

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<sup>7</sup> The residuals shown in the graphs are calculated as the difference between fitted and actual values.

**Table 1 Growth accounting (percent)**

	1971-80	1981-90	1991-00	2001-03
<b>Labour (contribution)</b>				
USA	1.4	1.1	1.0	-0.4
EMU	0.0	0.3	0.9	0.5
Italy	0.6	0.4	0.1	0.7
<b>Capital (contribution)</b>				
USA	1.5	1.3	1.3	0.8
EMU	1.1	0.8	1.0	1.0
Italy	0.7	0.8	1.1	1.2
<b>Total Factor Productivity (average changes)</b>				
USA	0.3	0.9	1.0	1.5
EMU	2.1	1.3	0.4	-0.5
Italy	2.3	1.1	0.5	-1.2
<b>GDP (average changes)</b>				
USA	3.2	3.3	3.3	1.9
EMU	3.2	2.4	2.4	1.0
Italy	3.6	2.3	1.6	0.8

The reduced indexation of wages and the slow economic growth are likely to be among the major responsible factors for this behaviour. However, other factors are worth considering as reasons for these breaks, in particular as far as manufacturing is concerned: new regimes in international competition and in monetary policy.

### 3. *Productivity*

According to the new national accounts data, over the last two years the apparent productivity of labour (measured as the value added at constant prices per employee, expressed in terms of full-time equivalents) has grown again, after four years of decline. But can we say that in Italy the productivity problem is over?

Actually, the reason as to why the fall of productivity in the previous years took place still has not been completely explained. It had never occurred in the past neither in our country nor in any of the other European countries. The fall of productivity has been one of the main reasons for the gap between Italian unit labour costs compared with the largest European countries and has translated into the loss of competitiveness that has characterized Italy since the entry into the Monetary Union. There are reasons to think that such a loss can be one of the factors behind the low growth of the Italian economy<sup>8</sup>.

In addition, productivity is one of the determining factors of potential growth, together with the increase in labour force and capital, both physical and human. It is even more important for a country, like Italy, in which the increase in population is almost nil; moreover, in the future the aging population will turn out to be more and more important, affecting the possibilities of a higher potential growth.

Given the importance of the phenomenon, several studies in the past have attempted to explain the slack in productivity.

The introduction (in all European countries) of chained national account data does not allow us

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<sup>8</sup> Among others, see Bassanetti – M. Iommi – C. Jona-Lasinio – F. Zollino (2004) and Prometeia, Rapporto di Previsione, June 2005, Chapter 8.

**Table 2 Employment and labour productivity (average percent rate of change)**

	Employment				Labour productivity			
	1980-89	1990-94	1995-99	2000-05	1980-89	1990-94	1995-99	2000-05
Germany	0.41	0.48	0.45	0.15	1.38	2.37	1.29	0.97
France	0.24	-0.17	1.05	0.86	2.21	1.55	1.49	1.14
Italy	0.59	-0.28	0.58	1.31	1.82	1.40	1.33	-0.17
Spain	1.49	0.13	3.29	3.19	1.28	1.61	0.35	0.26
UK	0.61	-0.93	1.27	0.89	1.77	2.25	1.71	1.69
USA	1.65	0.88	2.05	0.48	1.32	1.43	1.82	2.26

Source: AMECO.

to update the analysis done in the past<sup>9</sup> based on the growth accounting scheme, since we do not have data on capital stock. Therefore, we must still rely on old data and on the apparent productivity of labour. Let us start with a short synthesis of what we know, with the data available at the moment and, in some cases, not updated.

Labour productivity has progressively slowed down over the last 30 years in the countries of continental Europe, while that has not happened in the Anglo-Saxon countries (see Table 1). A lot of the literature produced in these years in order to explain this peculiar fact points to the production and the use of the information technology as sources for the acceleration of productivity and GDP growth in the United States (but also in the United Kingdom and in some North-European countries), technologies that, on the other hand, have not spread sufficiently in the countries of continental and Mediterranean Europe.

The slowing down of productivity growth, measured as the value added per employee, is recorded also by the total factor productivity (TFP), that approximates the rate of technological and organizational progress of an economy and that is obtained as a residual of the growth accounting scheme, in which the growth of gross domestic product is broken down into three components (the contribution of labour, the contribution of capital, and the multi-factor productivity). As Table 2 shows, TFP growth has progressively reduced in Europe but not in the United States.

In this context, the productivity slowdown has been more intense in Italy than elsewhere in Europe both if measured by the value added per worker and by the TFP, and it has fallen since 2000. The fall in productivity would be mainly due to the outstanding increase of employment.

According to the available data, the productivity slowdown has been spread all over the economy. Table 3 shows that in continental European countries some slowdown can be observed both in services and in the industrial sector, even if differences in the levels of the sectoral increases still hold (the industrial productivity growth in Germany can be noticed). Nevertheless, in Italy the slowdown has affected all sectors, more than in the other considered countries. In the Anglo-Saxon countries this pattern is not present.

We can move now to analyse the new national accounts data for Italy, at the maximum level of sectoral detail now available. Table 4 presents the rate of growth of the apparent labour

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<sup>9</sup> Prometeia, Rapporto di Previsione, June 2005, Chapter 8

**Table 3 Labour productivity (average percentage rate of change)**

	Italy	France	Germany	Spain	UK	US
60's	6.2	4.9	4.3	6.6	2.7	1.1
70's	2.6	2.8	2.6	4.3	1.7	1.1
80's	1.7	2.2	1.7	0.9	1.9	1.5
90's	1.4	1.5	1.7	1.0	2.2	1.7
00's	0.0	1.1	0.9	0.3	1.5	2.4
<b>Agriculture</b>						
60's	8.3	-	6.4	-	-	-
70's	4.5	5.6	6.0	-	4.3	-0.3
80's	4.6	6.1	5.6	6.0	4.3	8.3
90's	6.2	5.2	4.9	6.9	0.1	3.2
00's	1.3	-1.3	4.8	-0.6	9.7	2.3
<b>Industry</b>						
60's	6.9	-	4.9	-	-	-
70's	2.5	3.7	2.7	-	-1.8	-0.4
80's	2.7	3.7	1.7	2.7	4.8	3.7
90's	2.1	4.4	3.4	1.8	3.9	3.9
00's	-0.3	1.6	2.8	1.6	3.3	5.4
<b>Building and Construction</b>						
60's	2.8	-	2.4	-	-	-
70's	2.0	1.1	1.3	-	-4.9	-4.5
80's	2.3	2.3	0.8	2.1	4.7	-0.2
90's	0.1	0.1	-0.8	-1.2	1.0	0.5
00's	-0.9	0.7	1.1	-0.9	1.0	-2.1
<b>Services</b>						
60's	3.8	-	3.0	-	-	-
70's	1.5	2.0	1.8	-	-0.9	0.1
80's	0.1	1.5	1.0	0.4	1.0	1.0
90's	0.8	0.2	1.2	-0.1	2.1	1.3
00's	-0.4	0.3	0.4	0.2	1.5	1.7

Source: AMECO (the years 00's refer to the available data, that can differ among countries).

productivity and of employment for the nineties and since the years 2000; the latter also splits into two sub-periods, the first four years and the last biennium. First of all, it is worth noting that these new data confirm the previous picture, namely that over the last five years productivity growth has reduced in all macro sectors (with the only exception of the construction industry). From the analysis of the more detailed data, however, two interesting regularities emerge:

1. The slowing down of productivity growth has been generalized to all the sectors and, more notably, in the large majority of the sectors a reduction of productivity has been recorded. The exceptions have been limited: some mechanical productions (like metallurgy, products in metal, electrical machineries), communications equipment, and jewellery; among services, postal services and insurance.
2. The decline ended for most of the sectors in 2003; over the last two years productivity growth turned positive for the whole economy and for all the sectors, with very few exceptions (real estate and entrepreneurial construction, insurance).

Such similar behaviour of productivity growth in all the sectors represents an odd fact, that can hardly be explained by structural factors: these could not influence uniformly all the sectors of the economy and change their effects so abruptly.

**Table 4 Value added per employee (average percentage rate of change )**

	Productivity		by which:		Employment	
	1993-99	2000-05	00-03	04-05	1993-99	2000-05
<b>AGRICULTURE, HUNTING, FORESTRY AND FISHING</b>	<b>6.0</b>	<b>2.7</b>	<b>-1.2</b>	<b>10.6</b>	<b>-3.7</b>	<b>-2.9</b>
Agriculture, hunting and forestry	6.1	2.9	-1.3	11.1	-3.6	-2.9
Fishing	4.2	0.7	1.3	-0.5	-3.6	-1.7
<b>INDUSTRY</b>	<b>2.1</b>	<b>0.0</b>	<b>-0.4</b>	<b>0.9</b>	<b>-0.8</b>	<b>-0.5</b>
Mining and quarrying of energy producing materials	7.1	-3.0	-7.4	5.9	-5.6	4.7
Mining and quarrying except energy producing materials	5.8	-0.3	0.5	-1.9	-1.4	-1.0
Food products, beverages and tobacco	0.4	0.3	0.3	0.3	-0.7	-0.5
....Food products	0.3	-0.4	-0.2	-0.7	-0.4	-0.2
....Beverages and tobacco products	1.9	5.4	4.8	6.7	-3.0	-3.3
Textiles, textile products	3.1	-1.6	-1.5	-1.8	-3.7	-2.1
.....Textiles	3.1	-0.7	-1.3	0.6	-2.8	-2.5
.....Wearing apparel, dressing and dyeing of fur	2.7	-2.6	-1.7	-4.2	-4.5	-1.6
Leather, leather products and footwear	1.9	0.1	0.9	-1.6	-2.4	-3.3
Wood and products of wood and cork	2.8	0.2	0.8	-1.0	-0.9	-0.9
Pulp, paper, paper products, printing and publishing	1.2	0.7	0.1	1.7	-0.2	-0.4
....Paper and paper products	4.0	1.0	-1.0	4.9	0.4	-0.4
....Publishing, printing and reproduction of recorded media	-0.4	0.6	0.9	0.0	-0.5	-0.4
Coke, refined petroleum products	-1.5	-17.6	-4.4	-44.0	0.5	-2.6
Chemicals and chemical products	3.9	-0.2	-1.7	2.8	-1.3	-1.2
....Chemicals excluding pharmaceuticals and textiles	6.8	-1.9	-4.6	3.4	-1.0	-1.9
....Pharmaceuticals	0.3	1.0	0.8	1.4	-0.7	0.4
....Chemical textiles	5.2	4.8	2.4	9.7	-8.0	-10.6
Rubber and plastics products	1.6	0.2	-0.4	1.4	2.6	-0.8
Other non-metallic mineral products	2.9	2.4	0.8	5.6	-1.9	-0.3
Basic metals, metal products	2.4	1.1	0.6	2.0	1.3	0.5
....Basic metals	4.8	-1.8	0.1	-5.7	-1.0	0.5
....Fabricated metal products, except machinery and equipment	2.0	1.8	0.8	3.8	1.7	0.5
Machinery, equipment and transport	0.7	-0.1	-1.3	2.3	0.9	1.3
....Machinery and equipment, n.e.c.	1.7	0.2	-0.7	2.2	-0.6	0.4
....Office, accounting and computing machinery	-2.0	-6.2	-4.3	-10.1	-0.1	-0.6
...Radio, television and communication equipment	1.8	1.4	0.6	3.1	-0.8	0.1
...Medical, precision and optical instruments, watches and clocks	2.6	-1.4	-2.9	1.4	0.1	1.4
Machinery and equipment	1.8	-1.1	1.0	-5.4	-0.9	-2.3
....Machinery and equipment, n.e.c.	2.7	-1.2	2.6	-8.9	0.3	-2.6
....Electrical and optical equipment	0.6	-0.6	-1.0	0.4	-2.5	-1.7
Altre industrie manifatturiere	2.3	0.5	-0.5	2.6	-0.1	-0.2
....Precision and optical instruments, watches and clocks	2.9	0.1	0.3	-0.2	-0.6	0.1
...Other transport equipment	1.2	1.4	-1.9	8.2	0.9	-0.8
Electricity, gas, steam and hot water supply	3.9	2.4	2.2	2.8	-3.0	-2.1

For this reason, it seems difficult to follow the thesis expressed in the last Relation of the Bank of Italy that attributes the slowing down of the productivity *entirely* to "a fall in total factor productivity of about of half a percentage point a year that reflected the structural weakening of the economy: small firm size, insufficient use of information and communication technology and inadequate improvement in human capital. There remain substantial obstacles to competition that decrease the opportunities for the growth of employment and productivity and increase the costs of the firms most exposed to competition (...)”<sup>10</sup>.

We can therefore attempt some other possible explanations.

First of all, in our opinion the possibility of a measurement problem still remains. Although the recent revisions of national accounts data would exclude this possibility, the fact that the increase of employment has remained high with respect to the increase of economic activity leaves open the doubt that some measurement problem still exists or, at least, that there is a mismatch between when the new workers<sup>11</sup> and their production are recorded.

<sup>10</sup> Bank of Italy, Annual Report for 2005, May 2006.

<sup>11</sup> New employees were mainly formerly illegal immigrants regularized.

Table 4 (continue)

	Productivity 1993-99	2000-05	by which: 00-03	04-05	Employment 1993-99	2000-05
<b>CONSTRUCTION</b>	<b>-0.6</b>	<b>0.4</b>	<b>0.6</b>	<b>-0.2</b>	<b>-0.8</b>	<b>3.0</b>
<b>WHOLESALE AND RETAIL TRADE; RESTAURANTS AND HOTELS</b>	<b>2.5</b>	<b>0.4</b>	<b>-0.1</b>	<b>1.2</b>	<b>-0.3</b>	<b>1.3</b>
Wholesale and retail trade; repairs	2.2	-0.1	-0.6	0.9	-1.0	0.6
...Sale, maintenance and repair of motor vehicles; retail sale of automotive fuel	3.1	-2.7	-1.9	-4.1	-0.8	1.3
...Wholesale Trade	2.5	-0.4	-1.3	1.3	0.8	2.0
...Retail Trade	1.1	0.4	-0.2	1.7	-1.9	-0.5
Hotels and restaurants	2.2	-2.6	-4.0	0.3	0.9	3.5
Alberghi, campeggi ed altri alloggi	1.2	-3.6	-5.2	-0.3	2.4	3.6
Ristoranti, bar e mense	2.4	-2.1	-3.4	0.5	0.3	3.5
<b>TRANSPORT AND STORAGE AND COMMUNICATION</b>	<b>3.4</b>	<b>3.1</b>	<b>3.4</b>	<b>2.6</b>	<b>0.5</b>	<b>0.9</b>
...Land transport; transport via pipelines	4.0	1.1	1.1	1.0	0.6	0.8
...Water, air transport and supporting and auxiliary transport activities	-1.6	-0.7	-2.1	2.1	2.7	3.1
Post and telecommunications	7.8	11.4	14.0	6.4	-2.0	-1.5
<b>FINANCE, INSURANCE, REAL ESTATE AND BUSINESS SERVICES</b>	<b>-0.5</b>	<b>-2.1</b>	<b>-2.4</b>	<b>-1.4</b>	<b>2.4</b>	<b>3.4</b>
Financial intermediation	2.0	-2.1	-3.9	1.3	-0.7	0.3
....Financial intermediation except insurance and pension funding	1.7	-2.0	-4.3	2.5	-0.7	-0.4
....Insurance and pension funding, except compulsory social security	-1.2	7.6	14.7	-6.6	-1.7	-1.4
....Activities related to financial intermediation	5.0	-0.6	-3.0	4.2	-0.5	1.9
Real estate, renting and business activities	-1.3	-2.1	-2.2	-2.0	3.4	4.1
....Real estate activities	0.3	-0.9	-3.2	3.6	0.1	2.5
.....Computer and related activities	1.9	-0.4	-1.4	1.6	6.0	4.4
.....Other business activities	0.2	-2.0	-0.5	-5.0	3.1	4.2
<b>COMMUNITY SOCIAL AND PERSONAL SERVICES</b>	<b>0.6</b>	<b>0.6</b>	<b>0.4</b>	<b>1.2</b>	<b>0.1</b>	<b>0.6</b>
Public admin. and defence; compulsory social security	0.8	2.0	2.7	0.7	-0.6	-0.9
Education	0.6	1.1	0.5	2.2	-0.7	0.0
Health and social work	-0.1	1.3	1.2	1.4	1.7	1.4
Other community, social and personal services	1.5	-2.3	-4.7	2.5	0.6	1.2
Leisure and cultural services	3.0	-2.5	-7.5	7.4	1.9	1.2
Other services	0.1	-2.1	-2.6	-1.0	-0.1	1.3
Private households with employed persons	-0.2	0.2	0.1	0.3	0.3	2.2
<b>GRAND TOTAL</b>	<b>1.7</b>	<b>0.2</b>	<b>-0.2</b>	<b>0.9</b>	<b>-0.3</b>	<b>0.9</b>

Second, a huge adjustment towards productive combinations with less capital and more labour (the latter became less expensive, at least in non monetary terms) has taken place, as a consequence of the reforms of the labour market put into effect over the last ten years.

Third, a strong cyclical effect could have worked out: given the labour market sluggishness (the phenomenon known as labour hoarding), the productivity is usually pro-cyclical (the production grows/falls more than employment). The increased flexibility of the labour market had perhaps made us neglect this effect, thinking that there was the possibility to quickly adapt the desired level of employment to the level of production. As this did not happen, productivity fell during the phase of stagnation and it increased again in the last biennium, when firms had, with some delay, the possibility to reduce the input of labour.

To tell the truth, none of these possible interpretations satisfies us completely, each being able to explain one aspect of the phenomenon but none in a position to explain a fact that still remains, in our opinion, a puzzle.

It is therefore likely that each contributes to explain a part: structural effects, that have progressively reduced the ability of the Italian economy to innovate and to be productive (in one word, that reduced the TFP) which, together with measurement problems and with cyclical effects, are altogether responsible for the productivity slowdown and the lack of price competitiveness of Italian goods. The last two impulses have likely reduced their importance over the last two years, and that could explain the recent recovery of productivity. From this

point of view, the outlook for productivity is not as bad as it was over the last decade. On the other hand, the structural problems that certainly affect the Italian economy will need more time to be solved and they are likely to restrain Italy's economic growth also in the future.

#### **4. Export specialisation**

The difficulties of Italian exports have been emphasized since, within the EMU, the exchange rate policy is no longer available in order to restore price competitiveness. Difficulties arose before, in the middle of the 90s, when the shock of the Asian crisis hit more Italian exports than German and French ones. Actually, Italy's share of world exports at constant prices has gradually contracted from 4.6 percent in 1995 to 2.7 percent in 2005, even though we must note that the evolution of Italy's export share at constant prices is different from that calculated at current prices (Figure 10): while the first reduced the latter grew, due to the strong increase of average unit values. The reduction of market shares could be considered physiological for an "old" economy like Italy, being partly explained by the entry to world trade of formerly excluded countries. This is certainly true, but it is also true that in the same period France's market share contracted less (from 5.7 percent to 4.9 percent) and Germany's share grew (from 10.3 percent to 11.7 percent)<sup>12</sup>, suggesting that the decline of Italy's one stems from some weakness peculiar to this economy.

Focusing on the last six years, since the start of the EMU, Italian exports underperformed with respect to the other major euro-area countries even if all faced a similar growth of foreign demand. In fact, the export volumes of goods and services (national accounts definition) have risen at an average annual rate of 0.7 percent in Italy, 3.5 percent in France and 6.9 percent in Germany, when demand grew by around 6 percent, the same rate for all the three countries (Fig. 11)<sup>13</sup>. This suggests that the underperformance of Italian exports does not depend on geographical specialisation, in spite of relatively low export orientation to the most dynamic economies, such as China<sup>14</sup>, and that we have to focus on sectoral specialisation.

The following is a report of some results from studies which Prometeia and other Institutes have carried out on the performance of Italian exports. In the first section we examine the performance of Italian exports compared with other countries using most recent theories regarding international trade, such as gravity models; in the second section we focus our attention on sectors where Italy has lost some of its market share and on the countries which instead have gained in those sectors; in the third section we analyse the Italian specialisation pattern with respect to France and Germany.

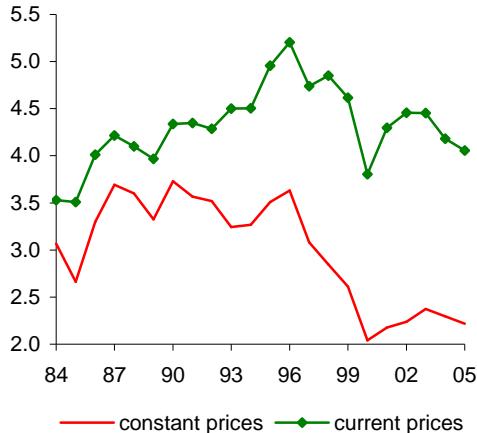
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<sup>12</sup> Calculations from Bank of Italy, Economic Bulletin, N. 42, March 2006.

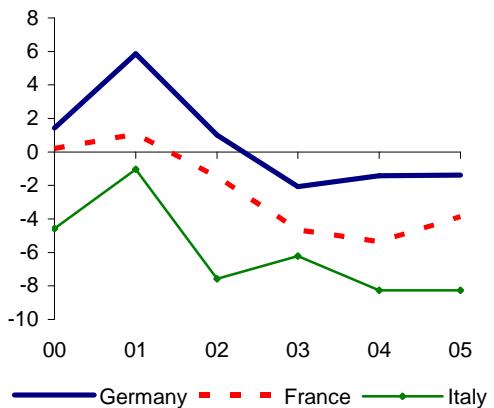
<sup>13</sup> Foreign demand is built as the weighted average of the trade partner imports. The weights represent export share of the country of origin and hence vary according to time.

<sup>14</sup> In 2005 the market share of imports into China from Italy was only 1.2 percent, from France 1.6 percent and from Germany 5.5 percent.

*Fig. 10 Italy: shares of world merchandise exports (percent).*



*Fig. 11 Percentage difference between export and foreign demand*



### *Empirical trade analysis using a gravity model*

The “New theories of international trade” link the ability of companies to export according to their geographical position with respect to both competitors and potential markets. It follows that exports of a country are determined by a number of environmental variables, mainly the dimension of the countries involved in the trade and their distance from each other. To assess these relationships gravity models are built: they replicate Newton’s universal law of gravitation using the economic dimension of countries, as a proxy of their “mass”, and the distance in km to explain the “gravitational force attracting each other”, i.e. the level of trade. The gravity model allows us to disentangle two main sources of changes in export flows: these could be affected by different average economic dimensions (income) of partner countries and by the different average distance between them. In the first case we have a measure of “attraction” and in the second case we measure the “accessibility” of markets.

Using a large database with data of bilateral trade flows, detailed by product, for 71 countries, starting from 1967 to 2001, we estimated parameters of a gravity model for each year for each country both to check the time paths of “attraction” and “accessibility” defined above, and to compare the results achieved by different countries in the world market<sup>15</sup>.

To analyse the performance of Italy’s exports two methodologies have been used. In the first case we built up “benchmarks” to answer the following question: given the environment (distances, incomes of partner countries, etc.) would a better performance than that achieved have been possible for Italian exporters? The answer lies in the assumption that countries differ in both economic environmental conditions and in reaction to these conditions (the coefficients estimated using gravity models). The benchmarks are built as virtual countries with the same conditions as Italy but with different behaviour and so we can check whether they do perform

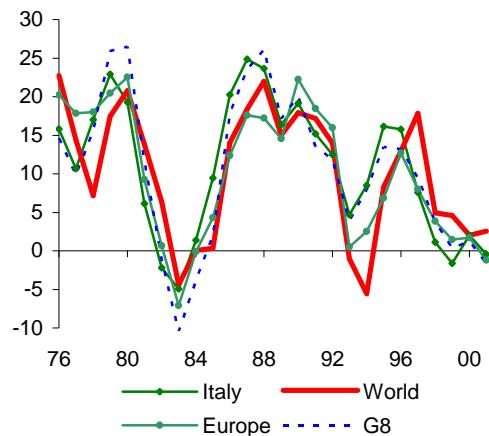
<sup>15</sup> See Burattoni – Ferrari – Ottaviano (2005).

better or worse than Italy. The reaction of the virtual countries is calculated as an average of the coefficient of a selected set of countries: for instance, the benchmark G8 averages the coefficients resulting from the eight gravity model estimations for the G8 countries and these parameters are applied to the environmental economic conditions of Italy (partner, flows, distances).

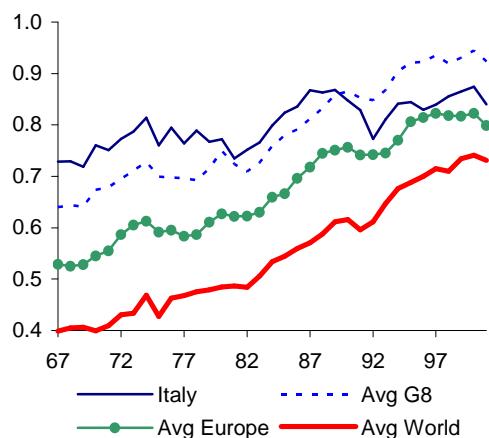
So the answer to the initial question is partly yes; from the comparison of Italy and the benchmarks it emerges that at least since the second half of the 90s and, in particular if compared with a very large benchmark averaging world behaviour, Italian exports could have performed better. The comparison seems better for Italy when industrialized countries or European ones are used as a benchmark (Figure 12).

A second analysis simply compares, along the time dimension, the coefficients estimated in the gravity model for Italy with those estimated for the other countries, or with averages of those coefficients for selected countries. As far as the elasticity of exports to income of partner countries is concerned, Italy performed worse than the other countries (Figure 13). The coefficient of the income variable is growing over time for all the groups of countries considered but for Italy the pace is the slowest. This means a poor ability of Italy, at least in relative terms, to profit from the growth in global income, and this holds in particular with respect to the benchmark group comprising developing countries. Regarding the distance (Figure 14), the elasticity of Italian exports over time follows a quite stable path, with a small declining trend (values increasingly negative). It should be noted that the more negative the coefficient, the higher the “difficulty to trade” per unit of space: the negative trends of other areas, and the world in particular, are more apparent than that of Italy and this could be seen as a hint that Italy has a relatively strong ability to trade with

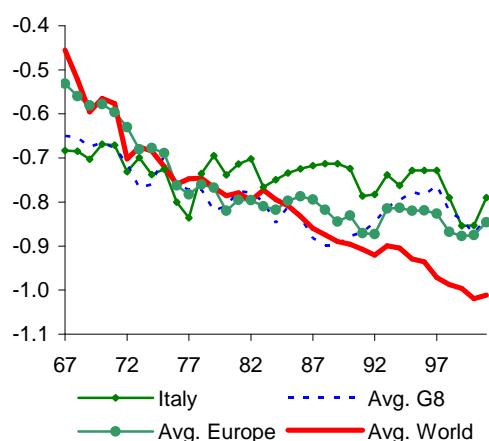
*Fig. 12 Italy and its benchmarks: ability to export of Italy and an avg. of other areas exporters in the environmental economic condition of Italy (growth rate)*



*Fig. 13 Sensitivity of exports to GDP*



*Fig. 14 Sensitivity of exports to distance*



*Table 5 Italy: export shares on the world trade (current prices)*

	1997	1998	1999	2000	2001	2002	2003	2004
<b>Textiles</b>	<b>9.2</b>	<b>9.5</b>	<b>8.8</b>	<b>8.4</b>	<b>8.7</b>	<b>8.3</b>	<b>8.4</b>	<b>8.2</b>
Yarns of textiles fibres	8.1	8.7	8.6	8.6	8.8	8.6	9.0	9.3
Other textile yarns	11.1	11.7	11	10.5	11.8	11.5	12.0	12.0
Knitted fabrics	6.5	7.1	7.0	6.1	5.9	5.7	6.5	6.0
Other knitted products	15.1	13.9	12.2	11.4	10.7	9.9	9.4	8.9
<b>Clothes and furskins</b>	<b>6.9</b>	<b>6.8</b>	<b>6.2</b>	<b>5.8</b>	<b>6.3</b>	<b>6.4</b>	<b>6.4</b>	<b>6.3</b>
Leather clothes	5.5	6.6	6.7	7.1	8.6	8.9	8.0	8.1
Clothing and accessories	6.8	6.8	6.2	5.7	6.2	6.3	6.3	6.3
Furskins and furskins products	9.1	9.5	8.3	8.3	8.7	10.3	9.1	6.4
<b>Leather and manufactures of leather</b>	<b>15.7</b>	<b>16.1</b>	<b>15.3</b>	<b>15.2</b>	<b>15.7</b>	<b>15.2</b>	<b>15.1</b>	<b>14.8</b>
Leather	19.5	21	21	21.8	21.6	21.2	20.8	19.7
Travel goods	9.5	8.7	8.1	8.7	9.3	8.8	9.6	10.3
Footwear	16.5	17.2	16.1	15.4	15.9	15.4	15.2	15
<b>Rubber and plastic products</b>	<b>6.9</b>	<b>7.0</b>	<b>6.6</b>	<b>6.2</b>	<b>6.3</b>	<b>6.3</b>	<b>6.4</b>	<b>6.5</b>
Rubber products	5.9	5.9	5.7	5.2	5.4	5.3	5.3	5.5
Plastics products	7.4	7.5	7.0	6.6	6.8	6.8	6.9	6.9
<b>Non-metallic mineral products</b>	<b>13.1</b>	<b>13.4</b>	<b>12.8</b>	<b>12.0</b>	<b>12.1</b>	<b>11.9</b>	<b>11.6</b>	<b>11.4</b>
Tiles	49.7	49.7	49.3	47.9	46.7	45.0	44.6	43.5
Clay and refractory construction materials	38.5	38.7	36.9	35.1	32.8	30.3	28.1	25.9
<b>Machinery</b>	<b>10.3</b>	<b>10.4</b>	<b>10.1</b>	<b>9.2</b>	<b>9.7</b>	<b>9.7</b>	<b>10.0</b>	<b>9.8</b>
Agricultural machinery	11.8	11.7	12.8	12.5	13	12.3	12.0	11.7
General industrial machinery	10.3	10.4	10.0	8.5	9.6	9.3	9.3	8.9
Household-type equipment	15.9	16.2	15.1	14.4	14.2	14.0	14.0	13.6

Source: ICE-ISTAT

distant countries. In general the negative trend could suggest that the growth in international trade has been driven by short-distance flows of international commerce.

To summarize, the Italian ability to export has been declining over time but this trend has been common to other industrialized countries as well, though with a lesser intensity. On the other hand the winners are the developing countries, mainly China and India. A point of major concern for Italy is the relative weakness in benefiting from increasing income of the partner countries, offset, at least partially, by a relatively good ability to reach far markets. Moreover, the research points to a minor importance of geographical location as an explanation for the poor export performance of Italy, suggesting specialisation as the main one.

#### *An analysis at sectoral level*

Since the 90s Italian exports reduced their shares in world trade in many manufacturing goods where they have had comparative advantages (Table 5). This is an additional symptom of the growing difficulty of Italian exports. We have investigated with deep sectoral detail the evolution of the Italian market shares looking at the winners in the world trade competition. We have considered Italian exports at current prices disaggregated in 160 categories<sup>16</sup> and we have

<sup>16</sup> The dataset for the analysis is FIPICE (by Prometeia-Ice). The data at current prices are disaggregated in 64 countries and in 175 categories of products, of those categories we eliminated those of raw materials (oil and non oil) and so we used 160 categories.

*Table 6 Sectors which have lost market shares (1996-2001)*

	Total sectors (a)	Sectors with loss (b)	Share (b/a%)	Share % on national exports
Italy	50	32	64.0	39.0
Germany	52	37	71.2	33.9
France	67	50	74.6	27.3

selected those sectors where our exports shares in world trade are relevant and covering at least 50 percent of total Italian exports. We focused on sectors which in 1996-2001 reduced their market share. This analysis compares the Italian situation with that of Germany and France. Some results of the analysis are reported in Table 6. France and Germany lost market shares in more sectors than Italy, but the importance of those sectors on total exports of the country is smaller. In Italy, 64 percent of the considered sectors lost market share but they represented 39 percent of export value.

In Table 7 we show the sectors which lost more than 4 percentage points in market share and the countries gaining shares in those sectors. For example, China gained in all the 13 sectors where Italy lost more than 4 percentage points of the world market share and Mexico gained in 11 sectors. In the Table the rank of countries is based on the average gain in market share.

An important caveat is necessary when interpreting the results of Table 7; among the countries which have increased their market shares in world trade we often see Mexico, Canada and the US. This depends also on the NAFTA agreement and on its effects on trade, which are somewhat difficult to disentangle: the absolute increase of trade (trade creation) and the diversion of trade flows due to the creation of a free trade zone (trade diversion).

To sum up, what emerges from this analysis is that the loss of market share was concentrated in sectors more important for Italy than for Germany and France; secondly the role of China as a competitor is quite relevant and more important for Italy than for the others. This result could reflect different trade patterns, as in our country there is a high concentration of low-tech sectors and this is heavily influenced by the competition from emerging countries, as we will show in the next section.

#### *The specialisation pattern*

We have analysed trade patterns and their evolution in Italy, Germany and France in the last 15 years. The analysis was carried out with Comext (Eurostat) dataset disaggregated at SITC 2 digit-level (68 sectors). Pavitt's taxonomy was used to classify the different goods on the basis of the level of technology embedded. Four categories of products were identified: science based or high intensity of R&D; scale intensive, sectors characterized by significant technical-organizational complexity, by high capital intensity and by high scale economies; specialized

**Table 7 "Competition" in sectors loosing more than 4 percentage points of market shares (1996-2001)**

	Italy (1990-'01)		Italy		Germany		France	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
China	13	14.69	China	10	7.20	Ireland	1	6.04
Mexico	11	3.38	India	3	2.90	Belgium	1	3.13
India	4	3.17	Japan	1	1.80	Us	7	3.06
Spain	6	2.95	Us	1	1.75	Singapore	3	3.04
Us	6	2.61	S.Korea	1	1.67	Mexico	6	3.04
Indonesia	6	2.32	Belgium	4	1.60	Italy	2	2.77
Poland	7	2.20	Mexico	7	1.46	Canada	4	2.30
Belgium	7	2.13	Spain	5	1.38	Austria	3	2.15
France	1	2.05	Canada	6	1.32	Israel	1	1.71
Taiwan	2	2.00	Turkey	5	1.19	Switzerland	1	1.48
Canada	7	1.95	Poland	5	1.12	China	3	1.12
Turkey	7	1.65	Egypt	2	1.09	Great Britair	2	1.02
Brazil	4	1.60	Indonesia	2	1.05	Spain	3	1.00
Bulgaria	1	1.59	Germany	2	0.92	Taiwan	2	0.87
Egypt	2	1.30	Netherlands	1	0.86	Czec R.	4	0.80
Japan	1	1.17	Bulgaria	2	0.81	Japan	2	0.79
Israel	1	1.04	Em.Ar.Un.	2	0.69	Denmark	2	0.79
Malaysia	6	0.98	Great Britair	1	0.64	Poland	4	0.71
Romania	4	0.94	Thailand	4	0.61	France	2	0.54
Morocco	1	0.90	Singapore	1	0.55	Croatia	1	0.51
Singapore	2	0.83	Romania	2	0.54	Hungary	1	0.42
Thailand	4	0.74	Brazil	5	0.50	India	2	0.40
S.Africa	1	0.73	Philippines	2	0.50	Portugal	1	0.40
Netherlands	1	0.65	Ireland	1	0.42	Netherlands	1	0.40
Austria	1	0.54	Colombia	3	0.37	S.Korea	3	0.37
Switzerland	1	0.49	France	1	0.30	Slovakia	1	0.36
Ireland	1	0.49	Slovenia	1	0.29	Sweden	1	0.25
Great Britain	1	0.48	Israel	1	0.28	Finland	1	0.18
Czec R.	3	0.47	Hungary	3	0.26	Malaya	2	0.18
Memorandum items (3):	13		10		7		5	

(1) Number of sectors in which the country ranks in the first ten as a market share winner

(2) Average gain of market share in these sectors

(3) Number of sectors loosing more than 4 percentage points of market shares

suppliers, sectors characterized by small-medium size firms, with high diversification of supply; suppliers dominated products which involve "traditional" industries, net buyers of innovations, sensitive to price competition but also to non price factors such as design and quality of products. In the first group, science based, we find IT and chemical industries; in the second group, scale intensive, we find motor-vehicles and basic metals industries; in the third group, specialized suppliers, machinery and equipment industries and in the last group, suppliers dominated, textiles, footwear, furniture and wood. In order to analyze the specialisation pattern of Italy with respect to Germany and France a modified Lafay index was used. This index measures the relative contribution of each group of products to total trade balance: positive values of the index indicate the existence of comparative advantages for these sectors, the opposite holds true if the values are negative<sup>17</sup>.

$$^{17} \text{Index} = \frac{(X_i - M_i)}{(X + M)/2} * 100 - \frac{(X - M)}{(X + M)/2} * \frac{(X_i + M_i)}{(X + M)} * 100$$

where  $X_i$  and  $M_i$  are exports and imports of products  $i$ ,  $X$  and  $M$  are total exports and imports.

The sum of each contribution is zero.

Figure 15 Specialisation index (avg. 2000-2005).

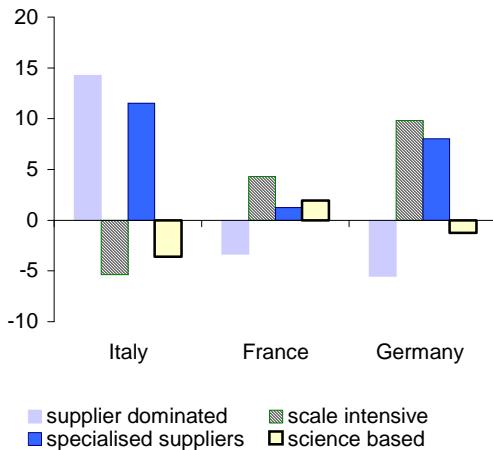
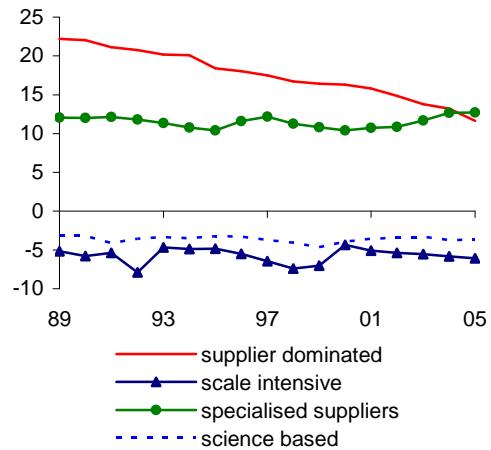


Figure 16 Italy: specialisation index



Comparing the specialisation pattern of the main EMU countries one can notice (Figure 15) the peculiarity of the Italian model, highly concentrated in traditional products; none of the other countries presents such as high contribution in this sector. Italy also shows a high contribution of specialized supplier products, quite similar to Germany; in particular in the tool machinery sector. In scale intensive sectors, Italy is the only country that presents comparative disadvantages. The other weak sector in the Italian trade pattern is in the science based industry. The French model does not present particular features: the indexes of specialisation are limited to a small range. The German model is distinguishable because it presents comparative advantages in the specialized supplier and scale intensive sectors. In the figure the indices do not sum to zero because the oil deficit is not shown. As far as Italy is concerned, the agricultural and food sector shows a significant deficit of trade balance as well.

Figure 16 reports the evolution of specialisation pattern in Italy over the last 15 years. During this period the specialisation in traditional products gradually reduced, until it reached the level of specialisation in specialized supplier products. The comparative disadvantages in science based and scale intensive sectors did not change in this period.

Comparing our international specialisation model with the Asian one it emerges that both have an intense specialisation in the traditional sectors. It is worth noting that the results of this kind of analysis depend on the level of detail in the data for different kinds of goods. Some studies<sup>18</sup> were carried out with highly detailed data and they showed that in the 1990s only a small share of Italian exports competed directly with those of the emerging countries, since Italian products are of better quality. However, we cannot exclude that our exports have felt competitive pressure on costs with negative effects on domestic production and employment.

In addition the product mix in the Italian economy is unfavourable also because in the nineties world trade grew faster in goods in which we are less specialized. A study of the Bank of Italy

<sup>18</sup> P. Monti (2005)

comparing specialisation indices with global trade at sectoral level from the mid 80s to 2001 shows that while in the 80s global trade of all products where Italy has comparative advantages grew more than the world trade increase, the opposite applies to the 90s<sup>19</sup>.

## 5. *Concluding remarks*

The shocks that hit the European economies within the EMU were more costly for Italy, because they affected some already existing vulnerabilities and some peculiarities of our economy: prices and exports were influenced, in a context in which the exchange rate was no longer an instrument to maintain price competitiveness and the fiscal policy was strictly constrained. The interest rates at the historical minimum levels were not sufficient to counterbalance these negative impulses. After six years of unsatisfactory growth, we are wondering how to restore competitiveness and to foster GDP growth.

As far as price competitiveness is concerned, negative gaps with respect to unit labour costs, consumer prices and export prices are still present. Nevertheless, there are clear signs of improvement: the consequences of the cash changeover, even if larger in Italy than elsewhere in the euro area, are now over; the oil price shock has been affecting prices in Italy less than in the other countries; the productivity slowdown seems to have come to an end. In fact the outstanding increase of employment reflecting the rising share of flexible jobs and the regularisation policies for immigrant workers (that have affected the “measure” of productivity more than productivity itself) is probably over. But the structural problems, that are still present and that can keep the productivity growth subdued also in the future, cannot be forgotten: the insufficient use of information and communication technology coupled with small firm size and inadequate human capital, the insufficient competition in many sheltered sectors that increase the costs of firms more exposed to international competition.

As far as product competitiveness is concerned, we found that the geographical specialisation of Italian exports does not seem very relevant to explain the weakness of Italian exports. It is in the sectoral specialisation that the Italian pattern appears more unfavourable than the German and French ones, because it is more concentrated on low-tech sectors and particularly on traditional sectors and consequently more exposed to competition from low wage countries. In addition, global trade is growing faster for products where Italian exports are less specialised.

Even in this respect, there are signs of improvement: a corporate restructuring is taking place, with the disappearance of less competitive companies (usually very small). At the same time the production of traditional goods is moving to higher quality goods and firms are relocating part of their production abroad where the costs are lower. However, the outsourcing process remains modest compared with the main European countries, even if in the last few years it has been increasing.

Notwithstanding the recognised signs of improvement, in order to reduce the real costs of the

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<sup>19</sup> ibidem.

adjustment process that the shocks and the new economic policy setting have required, some microeconomic measures could be useful. More market liberalisation would reduce the mark-ups in sheltered markets and then reduce prices for households and costs for firms. In addition, more competition would encourage innovation and investment in research and development, and then increase the opportunities for the growth of employment and productivity.

In this regard, liberalisation initiatives recently undertaken by the Italian government may go in the right direction, even if much more still has to be done.

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