Assocomaplast
ITALIAN PLASTICS AND RUBBER PROCESSING MACHINERY
AND MOULDS MANUFACTURERS' ASSOCIATION

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THE ITALIAN PLASTICS MACHINERY INDUSTRY
Survey on 2005 (synthesis)

As an introduction, taking into account that the Italian plastics and rubber machinery industry is part of the wider national contest of the Italian manufacturers of capital goods, it is useful to quote the brief analysis released by FEDERMACCHINE, which actually gathers 10 trade sectoral Associations, including ASSOCOMAPLAST.

On the basis of the respective branch data supplied by those organizations, FEDERMACCHINE Secretariat has processed the preliminary 2005 balance. According to this, the bulk of Italian machinery manufacturers in last December - with respect to twelve months earlier - recorded substantially a flat result, in term of total turnover. Much different, and worrying, appears the result considering the decline of capital goods demand as far as the domestic market is concerned, remarking that a 7% decrease was recorded along the last three years.

According to the Federation, the machinery production value in 2005 over 2004, should have slowed down by a 1% (0.7% on average on the longer period 2005/2003) to some 21.4 billion euro. The total enterprises number seems reconfirmed in 2,200 units, whilst workforce declined 1.6% down to 130,000-mark people.

Within the diversified machinery field, only four branches can be satisfied with the result achieved last year and compared with the previous one. The best growth, i.e. an increase of 13.2%, refers to glass-working machinery industry; at quite a large distance, positive results was also recorded by the metal-working machines, robots/automation industry (+4.7%), the graphics/paper machines manufacturers (4.5% increase) and, finally, with a 3% upturn the packing-packaging machinery.

As mentioned, the global downturn was due, once again in 2005, to the weak demand of the national end-users, noticing a 3% drop in respect of 2004 for the so called internal consumption or theoretic domestic market value. Domestic orders have been extremely hit, having lost over the 5%, which means missing the target of 6.4 billion euro at the end of last year.

On the contrary, as usual, a positive – and "saving" – matter for all the considered machinery sectors is the export which came close to 15 billions. This result, nevertheless, can not be said exceptional, being the growth over 2004 simply 2.1%. The ratio over production, anyhow, rose a little bit: from 69 to 70%.

The more "modest" capital goods import stream, not reaching the 3.6 million euro-mark and showing a small upturn (1.2%), stopped the expansion of the consequent Italian trade balance to 11.4 billion euro, with an increase of 0.8% over the 2004 result.

Coming into a certain export detail, as for the different branches, it can be seen that a major rise – almost 15% - was recorded by the sector represented by GIMAV (glass-working machines) and the one of UCIMU (metal etc.) with 14.6% upturn of the relevant sales abroad. Positive results, even if much less important, were recorded by the machinery manufacturers under the umbrella of ACIMGA-UCIMA (graphics and packaging): with 7.4 and 4.2% increase, respectively.

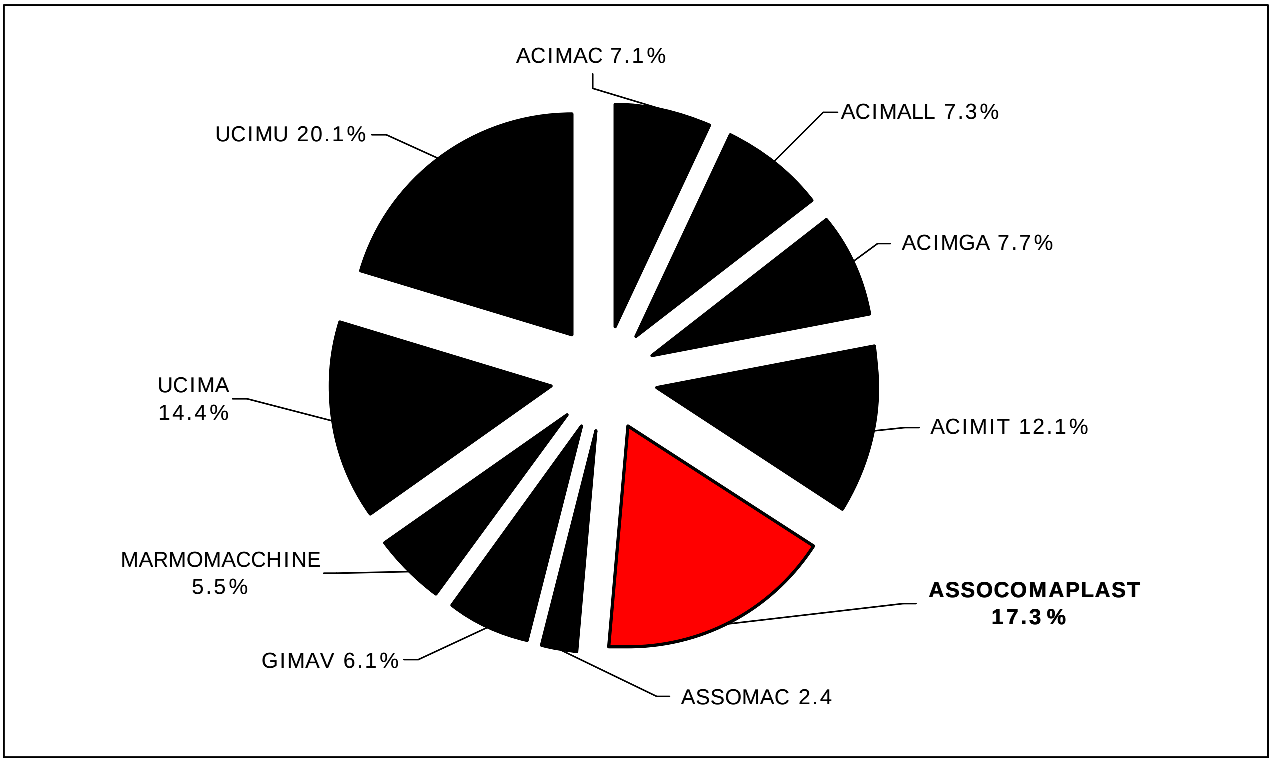
As previously mentioned, the major concern of the machinery industry as a whole remains the negative trend for the domestic market which, after the last three-year period, must come to an end. This reverse tendency is not only needed by the local equipment suppliers, who are forced to find new markets outside Italy, but as a beneficial change for the totality of the national manufacturing industry. Missing the plants modernization for a longer time can only have a negative spin-off for the entire Italian industry and its competitiveness, facing everyday more difficulties in keeping pace with competitors worldwide, the old ones as the new comers.

That being stated and with particular reference to the plastics and rubber machinery manufacturers, which still hold a significant share on FEDERMACCHINE's total production and export values, the relevant negative contribution in 2005 to the big "machinery-family" results can be noticed, a matter which is better detailed, to some extent, in the following chapter of this summary report.

Table 1 –2003-2005 evolution of the Italian capital goods (million euro)

	2003	2004	2005
production	20,974	21,653	21,391
export	13,900	14,895	14,966
import	3,354	3,532	3,575
domestic market	10,428	10,290	10,000
trade balance	10,546	11,363	11,391

Graph A – FEDERMACCHINE: 2005 turnover by sectors (percentage shares on total value of 21,4 billion euro)



ACIMAC – Italian Ceramics Machinery Manufacturers Association
ACIMALL - Italian Woodworking Machinery Manufacturers Association
ACIMGA - Italian Graphic- Converting and Paper Industry Machinery Manufacturers Association
ACIMIT - Italian Textile Machinery Manufacturers Association
ASSOMAC – Italian Footwear- Leathergoods and Tanning Machinery Manufacturers Association
GIMAV - Italian Glass-Processing Machinery Manufacturers Association
MARMOMACCHINE - Italian Natural Stones Processing Machinery Manufacturers Association
UCIMA - Italian Packing and Packaging Machinery Manufacturers Association
UCIMU - Italian Machine Tools- Robots and Automation Systems Manufacturers Association

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A part form the above mentioned premises, it can be reminded that since the very beginning, the "made in Italy" plastics and rubber processing machinery and moulds had steadily grown during the second half of the last century, reaching a technological sophistication, tar-

geting productivity and quality levels such as – how it can be seen by looking at the export figures – to be sold all over the world and, in particular, to be highly appreciated by the most industrialized and economically advanced countries.
The progressive increase of turnover along the past decades has also been supported by the world polymers and NR/SR exponential consumption progress, thanks to the advanced offer, first of all because of high versatility for different applications, meaning as well a better economical choice and functional for two main reasons: to preserve natural resources and being easy recyclable, via mechanical or thermal recovery systems, when plastics products come to life-end.
The Italian evolution in this field, technologically and by process, offering plastics and rubber processors a wide range of machines and related equipment and the so called peripheral or auxiliary tools up– and downstream for plants or more complex production lines, none the less moulds, it can not be interpreted a part from the expansion of the global polymers demand.
At the same time, the economic upturn of the branch is also linked to the particular size of the firms and to the experience achieved along over 50 years of activity.
The continuous upgrading has permitted to supply the Italian and foreign end–users – in particular those ones interested in highly hour production and/or higher added value – with tailor made machinery, being more compatible and suitable for satisfying single and more precise needs of the processors worldwide.
This attitude, during the last decade, has become a must or a topical matter, pushing the Italian suppliers to start a "philosophy" of direct collaboration with their clients for studying and testing together all viable chances to realise productive solutions with higher performances, under the operating and economic points of view. In this respect, anyhow, it must be recognised that, often, the branch itself faces a reduced dimension and capacity to invest in applied researches in order to compete with the major producers around the world and to supply with integrated systems, from their design to the choice of the polymers to be processed, of the moulds and the auxiliary etc..
It is as well worthy to remind, although, another positive peculiarity: to be a bulk of complementary companies in term of production, even if lacking in being synergic on an industrial base, having capitalized their own experience and therefore realised machinery more and more specific by use–destination, targeting from the original project of the equipment the optimization of its productivity and rational price/quality ratio.
In other term, as does the German industry and differently from the other homologous ones (like the competitors in Japan, Taiwan, United States etc.), Italy may offer as a whole a real complete technology range: from the primary processing machines to the more sophisticated and complex lines.
The present and up–to–date Italian technology, having an average high level, may match with the global demand as its machine supply varies a lot, covering a wide range of single and twin screw extruders from 20 to 400 mm, injection moulding machinery from 20 to 10,000 ton clamping force, several kinds of extrusion and injection–blow moulding machines suitable for producing both small bottles and very large containers, several lines of machinery for rigid and flexible polyurethane foams etc..
It is finally of further interest to briefly outline a few historical facts, thanks to which, since the early '50s up to day, the Italian plastics and rubber machinery industry – especially when talking about technological progress – has hit the progressive globalized marketplace with its own records. After mentioning that, in 1910, some Italians developed the original models of compression and transfer presses to produce special electric items in phenol–formaldehyde (among the first synthetic materials used to replace the traditional ones), the most emblematic facts must be reported. The first injection moulding machine in the world with a 5,000 ton clamping force, released in the middle of the '60s to manufacture large containers (remarking that production of this kind of machines started in Italy in 1940, coming from the previous German experiences back to 1923). The largest thermoforming machine was built at

the end of the '60s and was capable to process 7x3 m sheets for sport crafts. The production and trade of injection moulding machines with microprocessor to monitor and control process parameters, started – for the first time – in Italy since 1979, anticipating for a certain times the German competitors, whilst Japanese and American manufacturers reached the same goal several years later.
Briefly, it can be reminded how and how long the leading worldwide industries – operating in sectors like automotive, house appliances, rigid and flexible packaging and so on and using since many years growing volumes of plastics and rubber components – have purchased Italian plastics and rubber processing machines, to integrate or replace with success the original plants supplied by their primarily and most famous competitors.
A last quotation deserves also the particular Italian production niche of pre/post–consumption plastics and NR/SR recycling machinery. In this particular field our producers, after having installed several and complex treatment plants both in Europe and United States, have experienced and met the growing demand for those technologies, in particular from the emerging markets.

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At this point, about the economic results of 2005 vs/ 2004 (and 2003) of this important Italian industry branch, according to the ASSOCOMAPLAST survey, it can be seen that all five usual indexes – according to the figures shown in Table 2 and referred to the macro Italian market of plastics and rubber machinery – do not give us a positive picture.

Table 2 - Italian market for plastics and rubber machinery (million euro)

	2003	2004	2005
production	3,750	3,870	3,700
export (a)	2,192	2,274	2,145
import (a)	597	634	552
domestic market	2,155	2,230	2,107
trade balance	1,595	1,640	1,593

(a) 2003 e 2004 data rectified by ISTAT

Nevertheless, this can be as well read in a less negative manner, when considering two mitigating factors. First of all, it should however be noticed that, among the trade Association's Members, not few ones – viceversa and in spite of extreme fluidity and/or difficulties of the global market(s) – registered some or even considerable upturn of their turnover. It is not a case that Membership closed the 2005 recording "only" a 2% decrease on average, namely less than the half of the whole sector (whilst employees decreased by 1.3%). About the better performance of these machinery manufacturers, having successfully countered the trend and often unpredictable market conditions, it might be traced back, in part and of course, to the fact of having obviously taken all possible commercial chances also upgrading their own "tools", which means that the advantage has not been a randomness, rather the result of focused strategies and, more specifically, of a higher technology level and a better price/quality ratio offered by competitors (something that, since ever, represents a distinguishing attitude of the Italian machinery suppliers).
On the other hand, a second way to see 2005 in a better "light" is the longer-term vision of the results, it is to say looking at the average ones over the past three years-period (instead of simply 2005 over 2004), revealing consequently that some indexes are, even if merely, above the zero-mark. In this respect, firstly, a more positive result can be seen for the trade balance, showing the 2.6% average/year increase. Also slightly up appear production - albeit by only 0.5% - and exports of machinery and moulds (+0.8%). Reflecting the really weak – and not so much planned in advance... – demand of the Italian end-users, import show an

average decline of some 4 percentage. Consequently, along the same three-year period the theoretical domestic market value has an average drop exceeding 1%/yearly.

Table 3 – Italian import–export of machinery, equipment & moulds for plastics and rubber processing (thousand euro)

	IMPORT			EXPORT		
	2003	2004	2005	2003	2004	2005
calenders and laminators	646	56	476	56,207	42,602	43,021
flexographic printing machines	14,133	23,146	14,433	109,165	108,345	135,628
plants for mono and multifilaments	6,045	6,056	5,501	56,343	49,294	60,156
injection moulding machines	64,964	64,257	57,095	271,746	247,493	214,888
extruders	32,680	26,589	33,374	231,219	230,591	210,265
blow moulding machines	15,169	24,644	11,315	109,085	114,278	101,009
thermoforming machines	7,929	9,508	6,903	27,726	26,408	28,872
presses for tyres and inner tubes	10,065	4,031	4,548	18,751	20,434	18,740
presses	22,026	21,816	19,287	31,441	28,660	36,703
machinery for moulding or forming	22,013	8,386	11,506	77,862	73,351	90,763
machines for reactive resins	809	1,407	1,705	25,344	31,246	26,426
machines for foamed products	3,483	3,967	2,517	17,367	31,500	20,463
equipment for size reduction	4,134	3,189	2,441	25,796	17,988	28,428
mixers	990	2,056	829	12,420	13,148	14,688
cutting, splitting and peeling machines	1,471	2,918	6,199	5,922	5,757	4,842
other machines	40,405	51,135	45,088	222,309	270,326	306,119
parts and components	119,344	120,164	129,913	308,391	326,670	312,857
moulds	230,805	260,480	198,545	584,430	636,249	490,829
total	597,112	633,805	551,675	2,191,523	2,274,340	2,144,697

The voluntary short analysis of the sectoral trade 2003-2005, only considering the aggregated values rather than individual machine types (as mentioned in the above Table 3), by areas and most important (10) outlets, focusing more the Italian export performances, has been summarised by ASSOCOMAPLAST, according to its own data processing as published by ISTAT, as follows.

Europe as a whole remains the most significant trade region in absolute terms, with the lion's share going to the EU countries. Within Europe, the sales performance of Italian machinery manufacturers fluctuated widely, declining by almost 19% over the past year to 1.24 billion euro, as compared with nearly 1.53 billion in 2004 when it was instead up 9.4% from the preceding year (1.4 billion), to produce a virtually static (-0.2%) annual average change in the observed period. The European share of total Italian export sales accordingly went down from 63.7% in 2003 to 57.8% in 2005, passing through a peak of 67.1% in the middle year.

To some extent, it is to say under a "percentage point of view", import of the Italian plastics and rubber processors within the same area are still largely the most heavy one, as along the same 36-month period we are considering, our sectoral purchases in this "region" accounts constantly around 84% on total import. Looking at the relevant total values, ranging from over 512 million euro of 2003, up to almost 548 the following year and cracking down below the 560-mark at the end of 2005, it can be said that, on average yearly basis, the decrease is 5.5% (¾ of them originated in EU, in bigger evidence – since ever – is the sectoral import from Germany, from where the 40-45% of total purchases of this kind of machinery comes).

Looking some "deeper" just about the Italian sales within EU and the other European countries, the situation appears more dynamic for the latter. During the three-year period under study export to the European partner countries was on average down 4.1% whilst sales toward the total of non-EU countries were up 15.9%.

In fact, EU-countries keep just below 1.2 billion euro in the first two years, in 2005 dropped dramatically to 917 million, while in terms of share of worldwide sales resulted slightly down, from 52.4 to 52.6% before, in last December, falling down to 42.8%. The obviously much smaller sales volumes to the rest of Europe were 347, 351 and 323 million euro, representing an increased share from 11.3 to 15% in the two extreme years, after having been 15.4% in the middle-one.
The Americas, which both in 2003 and 2004 was the third most important "regional" outlet, last year rose back to second place, overtaking the great (but perhaps more... complex, commercially speaking) Asian market in the ranking. During the last 36 months under consideration, Italian exports to the New World from 327 million euro recorded in 2003 went down to the 297 one year later, before booming to nearly 405 million euro in last December, the relevant share on total global sales resulted up from 14.9 to 18.9% in the extreme years, after having dropped to 13% in 2004. This strong upturn reflects the 3.3 percentage points increase. The result is in large part referable to the excellent selling performance of Italian manufacturers during the period in certain high-priority American markets, first and foremost the United States, followed by Mexico and Brazil. Export toward Asia, despite recovering well during the last two years (+16.8%), had an average growth over the three-year period of just 2.5%, according to sales of 361, 330 and 385 million euro along 2003-2005, while share out of total resulted of 16.5, 14.5, and 18% respectively.
Just for completing the geo-analysis on the Italian export of plastics and rubber machinery, by areas, it can be finally noted that Africa and Australia still represent two secondary destinations, in order of the less significant values and relevant shares on the total, which result less than 5 and 1%.
Secondly, for not boring the readers, about the most important countries for the Italian made machines the comment is "summarized" in the last and following table (n. 4) where the so called "top 10" are listed, i.e. the largest and recurrent markets, quoting the relevant positions in the world ranking and the percentage shares on the total sales along the last three years.

Table 4 – The "top 10" export markets for Italian plastics and rubber machinery

	2003		2004		2005	
	ranking	% share on total	ranking	% share on total	ranking	% share on total
China	3°	7.4	5°	5.3	3°	6.8
France	2°	7.5	2°	7.7	6°	5.6
Germany	1°	19.4	1°	18.8	1°	13.0
Mexico	9°	3.4	nc	2.3	9°	3.6
Poland	10°	2.5	9°	3.2	10°	3.1
United Kingdom	6°	4.4	7°	4.4	7°	4.0
Spain	4°	6.8	3°	6.2	5°	6.0
United States	5°	6.1	6°	5.2	2°	7.7
Switzerland	nc	1.8	10°	3.0	nc	2.4
Turkey	8°	3.5	8°	4.1	8°	3.7
C.I.S. (Russia)	7°	4.2	4°	6.2	4°	6.2
other countries	--	32.9	--	33.7	--	37.9
total export (thousand euro)	**2,191,523**		**2,274,340**		**2,144,697**	

nc = not classified

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In conclusion, as for the sectoral perspectives, looking at the future with some optimism, it might be said that, on the basis of the present and the expected better market dynamics, this

2006 could show a reversal of the trend and bring to a recovery that, even if not impressive, may allow the Italian manufacturers to be more confident.

In the first quarter of this year, compared with the same period 2005, a part not being so much representative under a statistical point of view at longer-term, export stream keeps stable whilst import shows a significant upturn (close to 10%). This is of particular interest because it gives a positive sign: Italian plastics and rubber processors have likely started again to invest (somehow postponed, may be, for too long time...).

Other confirmations come out as well from the recent surveys carried out by ASSOCOMA-PLAST, in order to find out how the business climate is at medium-short term which definitely appears improved. The result of the interviews made in last April among a significant panel of Italian machinery manufacturers and subsidiaries or representatives of the most well-known foreign ones working on the Italian market, gives a much better outlook: order-porfolios as for machinery number and value was better than one year earlier for almost 50% of respondents, a further 25% opted for a substantial stability.

A similar investigation on the national processing industry gave a positive picture for the next 3-4 months (coming to second half of the year) as for production.

Hoping to have fully confirmed those positive expectations and as well for the coming months up to the end of 2006 (and further...), viceversa, it is rather difficult to make longer accurate – and subsequently... veritable – forecasts.

The future of the Italian machinery industry will depend, most probably, on two main factors. On one side, the government engagement to seriously (meaning at structural level) plan and secondly implement, a political-economic and industrial wide-ranging strategy to support the entire national industry for enhancing its competitiveness, internationally. On the other side, the engagement of the entrepreneurs too will be strongly necessary. They shall necessarily modify their own structures and attitudes to fit better the complex variables coming along with the globalisation moves. One matter, for sure, is the internationalisation of any company which means both mentality and operating changes, two aspects strictly linked and unavoidable. Last but not least, another may be "abused" concept concerns the acronym R&D, something that is really urgent and necessary; a target which as well means to put a lot of economic resources as human (not to forget about) to succeed. It is as well desirable to restart (if not trying for the first time...) to interact-cooperate with the clients/end-users of the machinery in order to study-try and release product/process innovation, more than technological, assuming that a mechanical "revolution" is (probably) a poor realistic target.