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

Associated with:
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THE ITALIAN PLASTICS AND RUBBER MACHINERY INDUSTRY
Survey on 2006 (synthesis)

Abstract of the comprehensive Report released on June 13, 2007 on the occasion of the annual Assembly of ASSOCOMAPLAST's Members.

SOURCES: ASSOCOMAPLAST, FEDERMACCHINE, ISTAT AND MENTIONED COUNTRIES' STATISTICAL INSTITUTES

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The Italian capital goods industry: balance 2006

The Italian plastics and rubber machinery industry is part of the wider national context of the national capital goods manufacturers, consequently an introduction is necessary.
On the basis of the data supplied to FEDERMACCHINE Secretariat – the Federation gathering the concerned Trade Associations, including ASSOCOMAPLAST – last year showed a strong recovery across the different machinery sectors.
Within this context, as briefly quoted further in this document, it is almost clear the leading role played by the plastics and rubber technology according to the relevant share on the bulk of production and export values for the whole Italian machinery industry, ranking second, just behind machine tools machinery branch.
The analysis on the aggregated figures allows FEDERMACCHINE of shortly highlighting the following matters:

- domestic demand, after years of recession, recorded a strong increase
- exports, after a flat 2005, restarted with a satisfactory trend
- imports took advantage of the internal market expansion
- production, in the last two-year period, rose by 9.3%, largely exceeding the threshold of 23 billion euro, of which some 70% was exported, with a better performance as well: +8.7% on 2005.

Table 1 – Evolution 2004-2006 for Italian capital goods (*)

	2004		2005		2006		average % change 2006/2004
	million euro	% on total	million euro	% on total	million euro	% on total	
production	21,663		21,402		23,386		3.7
of which ASSOCOMAPLAST	3,870	17.9	3,700	17.3	3,850	16.5	0.9
export	14,926		15,108		16,425		5.7
of which ASSOCOMAPLAST	2,274	15.2	2,184	14.5	2,268	13.8	1.1
import	3,559		3,581		3,920		5.3
of which ASSOCOMAPLAST	634	17.8	567	15.8	589	15.0	-0.4
domestic market	10,296		9,875		10,881		1.4
of which ASSOCOMAPLAST	2,230	21.7	2,083	21.1	2,171	20.0	0.2
trade balance (surplus)	11,367		11,527		12,505		5.8
of which ASSOCOMAPLAST	1,640	14.4	1,617	14.0	1,679	13.4	1.7

(*) Aggregated data supplied by the relevant federated Trade Associations:
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

Something worth while to remark is the mentioned better dynamics of the national demand which along the last years has represented the real weak point of the "system", whilst at the end of last year the domestic market trend seemed really changed. Internal sales value (i.e. production less export) grew steady, it is to say +10.6%, up to roughly 7 billions.
Considering than the smaller amount of machinery purchased abroad, i.e. 3.9 billions (+9.5% over the previous year), the theoretical Italian domestic market value has recorded a 10.2% increase, getting close to 11 billions.
The excellent result for the turnover provided a spin-off on the work force, at least breaking down with the past three years falling trend: the some 3,000 units under consideration from the 130,025 employees in 2005 grew their human resources to 130,420 in last December.
The above mentioned figures, as quoted well in the previous table, confirm the outstanding "weight" on the Italian economy of the industry under examination, even emphasizing the relevant turnover accounts for 1.6 points on the national GDP.
Moreover, the highest contribution given to our economy comes from the abroad sales of the made in Italy capital goods, representing a really important share out of the global one: 4% or 5% if we consider only the export of manufactured products.
Last but not least, the generated occupation means 1.9% of the whole Italian industry workforce.

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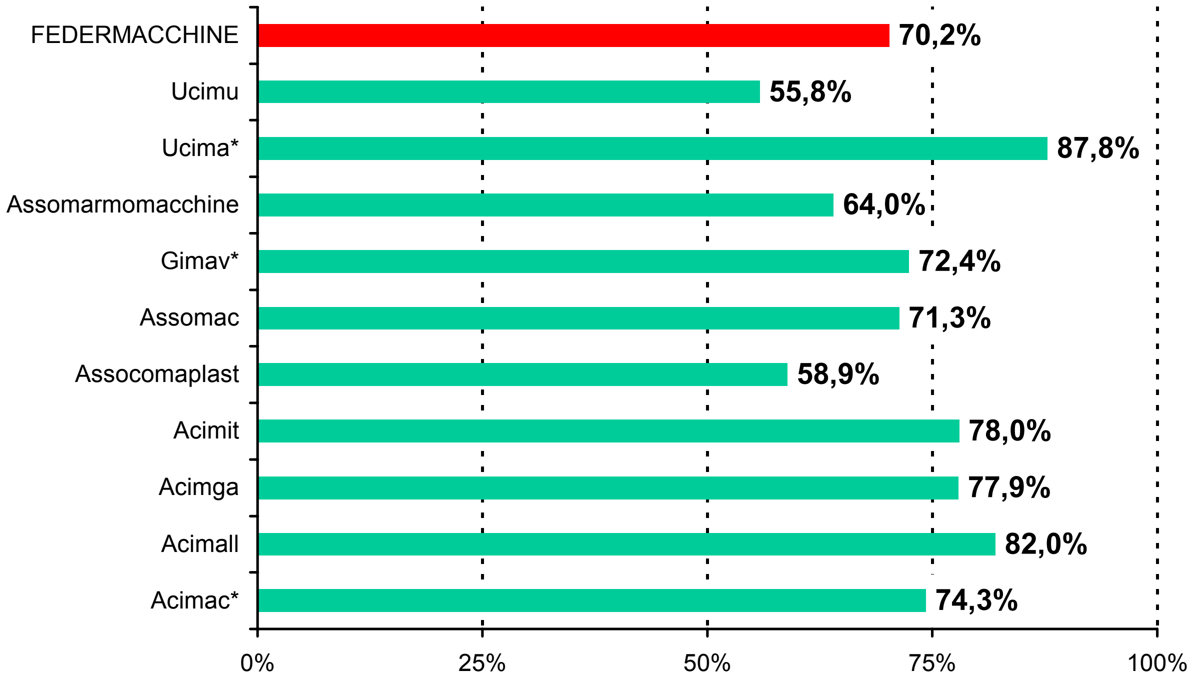
The machinery manufacturers have a distinguishing characteristic, being strongly export-oriented as mentioned at the beginning and shown in the graph here below.
As a matter of fact, all the branches have an export/production ratio exceeding the 50%, or even more close to saturation, as it appears for the Italian packing and packaging machinery suppliers and those one producing woodworking machine. On the contrary, the machine tools for metal working manufacturers have the lowest export impact on their own sectoral production. This matter is not to be interpreted, as it might, as a weakness, in respect of the other sectors (noticing aside that it ranks third at world level), but it depends on the fact that the branch itself is primarily a supplier for all other national capital goods manufacturers. It is not as well accidental that Italy is one of the most important end-users market for machine tools, due to its strong mechanical specialization, generally speaking.
A second strength point, once again taking into account the huge export, is the remarkable consequent - positive - trade balance. At the end of 2006, as a whole, the surplus reached a peak of 12.5 billion euro, against 11.5 of 2005, it is to say +8.5%, the fourth year in row increase and an historical record (just for mentioning it, in 1990 the surplus was below the 6 billion-mark).
To demonstrate the significance of this industry for the Italian economy, it would be enough to consider – vice versa – the Italian deficit recorded last year according to the bulk of trades: 21.4 billion euro. In this respect, considering the wide context we are talking about, it must be highlighted that only two sectors have given a positive contribution, reducing somewhat the global negative result: furniture/textile industry, generating a surplus of over 29 billions and machine-mechanical apparatus with over 48 billions, of which the 29% is related to the FEDERMACCHINE system.

Graph A – Export share by sectors (export/production ratio - 2006)



(*) Percentages 2005, having not published those ones for 2006.

Historical remarks and technology records

Since the very beginning (going back to the '40s), the plastics and rubber machinery industry has progressively developed, coming to more sophisticated levels for realising technologies which offer higher productivity and quality, two factors that have improved their commercial penetration worldwide and, in particular, enjoying the recognition-appreciation of the most industrial and economical 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 periph-

eral 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 technological upgrading is as well witnessed by 512 European patents recorded by the Italian plastics and rubber machinery manufacturers, Members of ASSOCOMAPLAST.
The attitude of matching with the processors, in the last years, 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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According to the above quotations, the sector is not only very important within the national industry but also in the global contest, keeping a leading role among the worldwide players and resulting at the ranking top.
If we consider the aggregated values of the last three years carried out by the 9 (besides Italy) most important producers/exporters – it is to say, taking the data from the relevant official statistics, strictly in alphabetical order: Austria, China, France, Germany, Japan, South Korea, United States, Switzerland and Taiwan – it is almost clear the flattering result achieved by the Italians.
As a matter of fact, in respect with the 2004-2006 export volumes, ranging from a minimum of 17.5 to a maximum of 18.5 billion euro (last year), the made in Italy has kept a 12.5% average share out of the total, which means to be always the third world exporter, while in terms of production is second, following the German manufacturers.

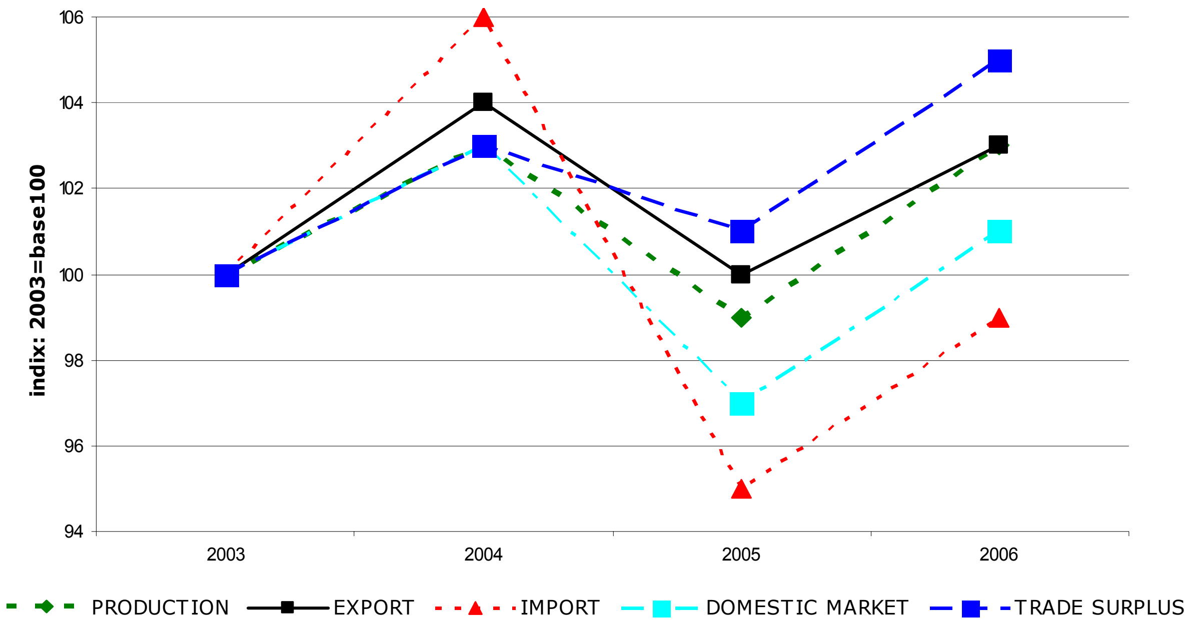
The economic evolution 2004-2006

According to the total turnover achieved in 2006 by its Members and the whole sectoral export of 2006, considering the relevant percentage changes over the previous year, the Association Secretariat has processed the following synthesis table according to the last three-year period (2004-2006) to show the macro-data in value of the national market, giving the fluctuations for the consequent five factors year-to-date and the average ones over the period.
Consequently, the same values have been calculated as an index (2003=base100) and reported in the relevant following graph, to show the factors trends.

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

	2004		2005		2006		average
	milion euro	Δ % y/y	milion euro	Δ % y/y	milion euro	Δ % y/y	Δ % 2006/2004
production	3,870.0	3.2	3,700.0	-4.4	3,850.0	4.1	0.9
export	2,274.3	3.8	2,183.7	-4.0	2,267.5	3.8	1.1
import	633.8	6.1	567.1	-10.5	588.5	3.8	-0.5
domestic market	2,229.5	3.4	2,083.4	-6.6	2,171.0	4.2	0.2
trade balance (surplus)	1,640.5	2.9	1,616.6	-1.5	1,679.0	3.8	1.7

Grafico C – Italian market for plastics and rubber machinery. Evolution 2004-2006 (index)



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Perspectives for 2007

The summarized data given in this report gives an image rather clear about the position of the Italian industry we are talking about according to the last years.

As for 2007, the ASSOCOMAPLAST cyclical surveys carried out in the first months of the running year have shown a positive sales trend and, to some extent, an improving tendency to invest by the Italian end-users.
Also with reference to the most important outlets there are quite good and positive signs, even if the trade contest should grow less with respect to the better rates and shares expected by the competitors, offering both hi-tech and low-cost machinery...

The sectoral Italian trade in 2004-2006

In order to release some more details about the Italian import and export along 2004-2006, the table here below offers the possibility to match the two commercial flows as a whole and by the relevant single customs code (type of machines).

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

	import			export		
	2004	2005	2006	2004	2005	2006
calenders and laminators	56	478	246	42,602	43,266	64,953
flexographic printing machines	23,146	14,550	20,127	108,345	138,460	123,323
plants for mono and multifilaments	6,056	5,632	1,749	49,294	60,328	65,929
injection moulding machines	64,257	61,151	85,345	247,493	216,945	237,509
extruders	26,589	33,739	37,003	230,591	212,565	219,231
blow moulding machines	24,644	11,315	25,152	114,278	102,044	103,046
thermoforming machines	9,508	7,476	16,554	26,408	28,893	34,610
presses for tyres and inner tubes	4,031	4,548	8,759	20,434	18,806	21,090
presses	21,816	20,668	14,562	28,660	36,674	40,024
machinery for moulding or forming	8,386	11,511	10,332	73,351	91,721	91,745
machines for reactive resins	1,407	1,706	1,164	31,246	26,426	34,443
machines for foamed products	3,967	2,517	5,900	31,500	21,284	23,455
equipment for size reduction	3,189	2,458	5,583	17,988	28,687	21,091
mixers	2,056	831	4,223	13,148	14,740	22,901
cutting, splitting and peeling machines	2,918	6,670	4,658	5,757	4,854	6,263
other machines	51,135	45,365	26,673	270,326	309,427	292,981
parts and components	120,164	131,729	116,867	326,670	314,223	323,600
moulds	260,480	204,711	203,591	636,249	514,353	541,278
totals	633,805	567,055	588,489	2,274,342	2,183,694	2,267,473

In conclusion, once again for the sake of brevity, the last table proposed in the following page shows the last three years ranking of the ten most important destinations – the so called "top 10" – for the Italian plastics and rubber machinery suppliers.
In consideration of such a synthesis, it is worth at least to underline just two matters. First of all, the mentioned countries are almost the same ones along the years, apart from the

relevant position changes within the ranking itself, being as well mainly the most economically and industrially advanced ones.
Secondly, in this particular last respect, Germany has been reconfirmed for the sixteenth year in row – in spite of the competition with the Italian manufacturers all over the world – the first largest destination for the made in Italy plastics and rubber technology, adding a small statistical detail: German market along the decade 1997-2006 has "collected" on average the 14.5%/year of our total export.

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

	2004		2005		2006	
	ranking	% share	ranking	% share	ranking	% share
China	5°	5.3	3°	6.7	3°	6.3
CSI (Russia)	4°	6.2	4°	6.1	2°	6.6
France	2°	7.7	5°	5.6	5°	5.8
Germany	1°	18.8	1°	13.5	1°	12.3
Mexico	n.c.	(2.3)	9°	3.6	10°	3.2
Poland	9°	3.2	10°	3.2	7°	4.6
United Kingdom	7°	4.4	7°	4.0	8°	3.8
Spain	3°	6.2	5°	6.0	6°	5.4
United States	6°	5.2	2°	7.6	4°	6.5
Switzerland	10°	3.0	n.c.	(2.4)	n.c.	(2.5)
Turkey	8°	4.1	8°	3.7	9°	3.6
other Countries	--	35.9	--	40.0	--	41.9
total export (thousand euro)	2,274,342		2,183,694		2,267,473	

n.c. = not included in the "top 10"