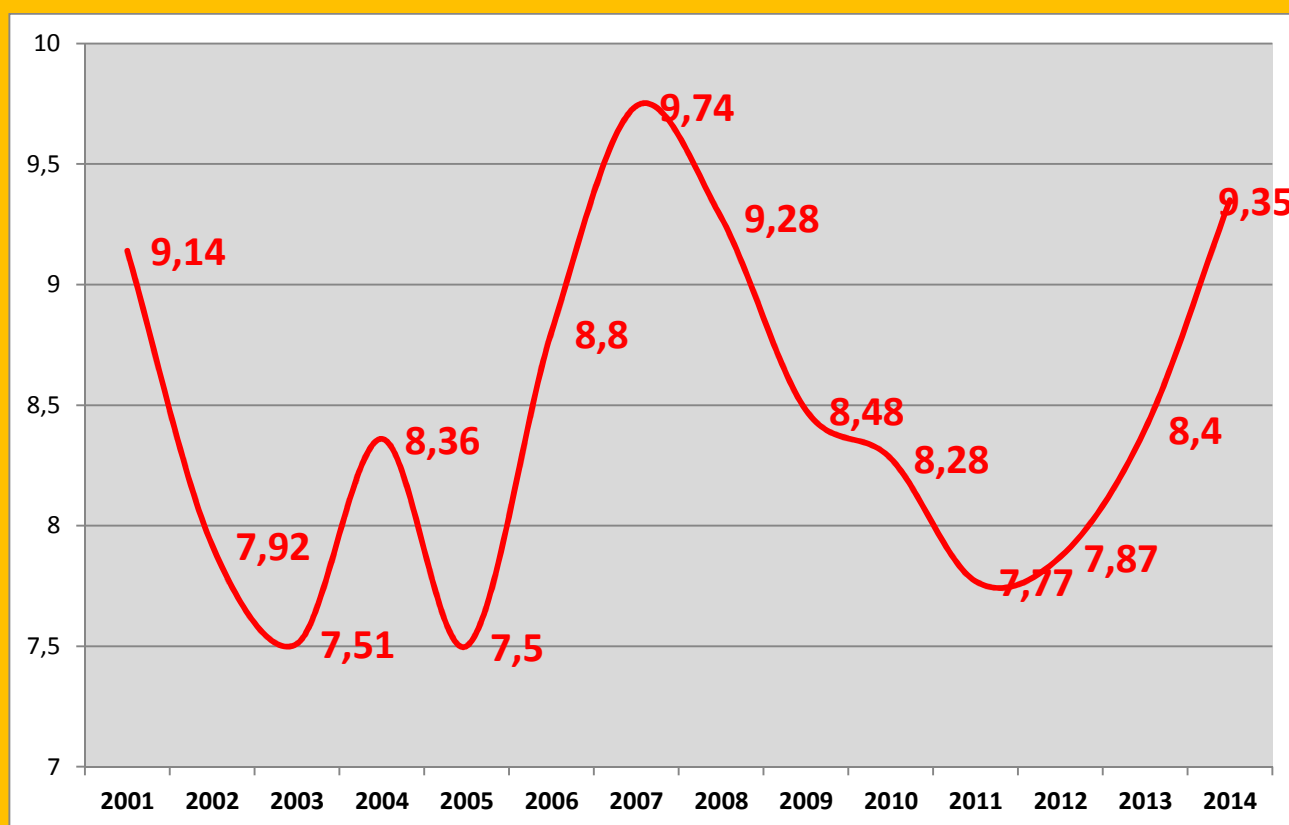


Costs of Logistics

Revision March 2015

(Update of the 2014 Study, with updates from the new Establish Davis report (2014 report), of the index LPI 2014 of the World Bank and of the data of 2012/13 intermediate costs for sectors related to transport from the last National Report on Transportation – CNT)



Foreword

Definitions: Logistics is defined by the “Council of Logistics Management” as:

"The process of planning, implementing and controlling the efficient , effective flow and storage of raw materials , semi-finished and finished goods and related information from point of origin to point of consumption in order to meet the needs of customers."

AILOG (Italian Association of logistics and supply chain management) adopts a more operational definition, and considers logistics as:

"The set of organizational, managerial and strategic activities that govern in the company the flow of materials and related information from its origins at suppliers to the delivery of finished products to customers and after-sales service "

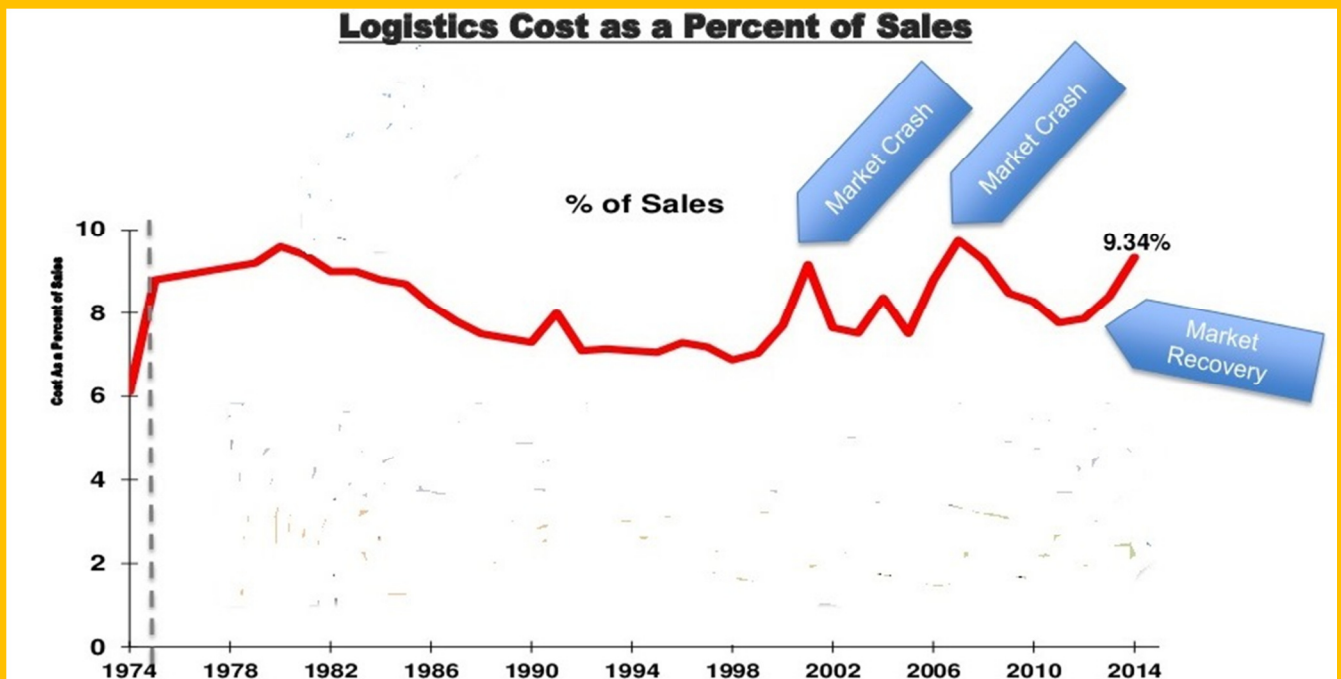
Both definitions emphasize the existence of a wide range of activities beyond the mere transport, and the need for their implementation on an integrated basis.

It's clear, however, that transportation, in its various forms, has a key role in all phases of the logistics process, as documented by the work of two well-known international companies that make periodic surveys of logistics costs.

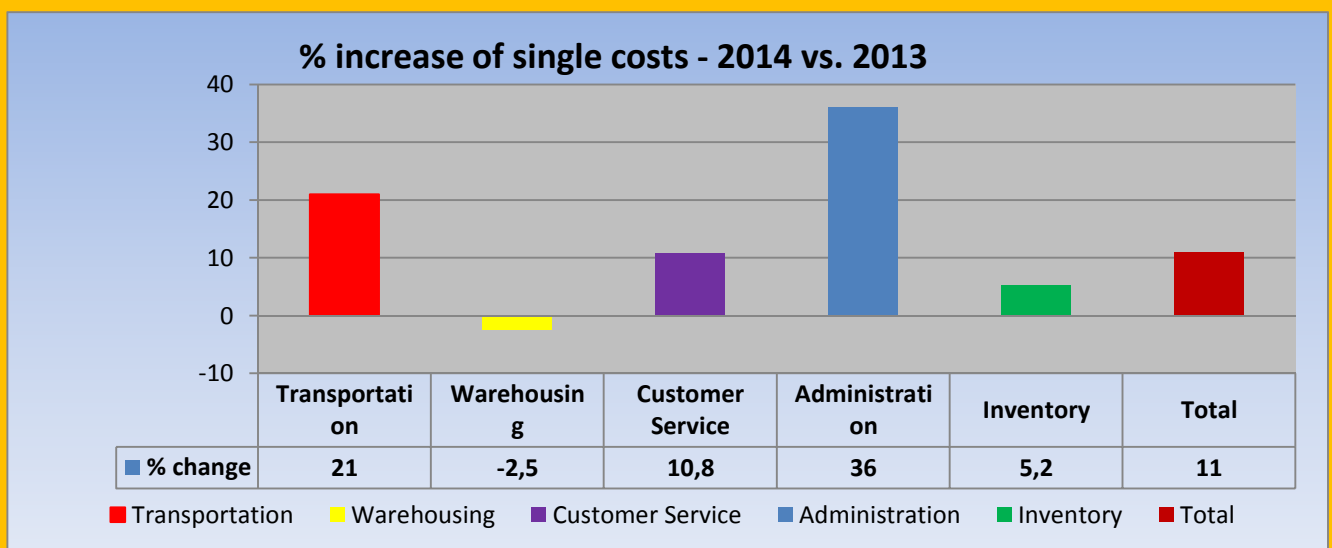
The best known is Establish / Davis,

which bases its findings on a vast universe of companies, at an international level and whose data-base has more than 35 years of life (started its surveys in 1974) .

Updating of the Logistics Costs from the presentation of Establish-Davis to the Council of Supply Chain Management Professionals (CSCMPS) Annual Global Conference, San Antonio, 21/23 September 2014.

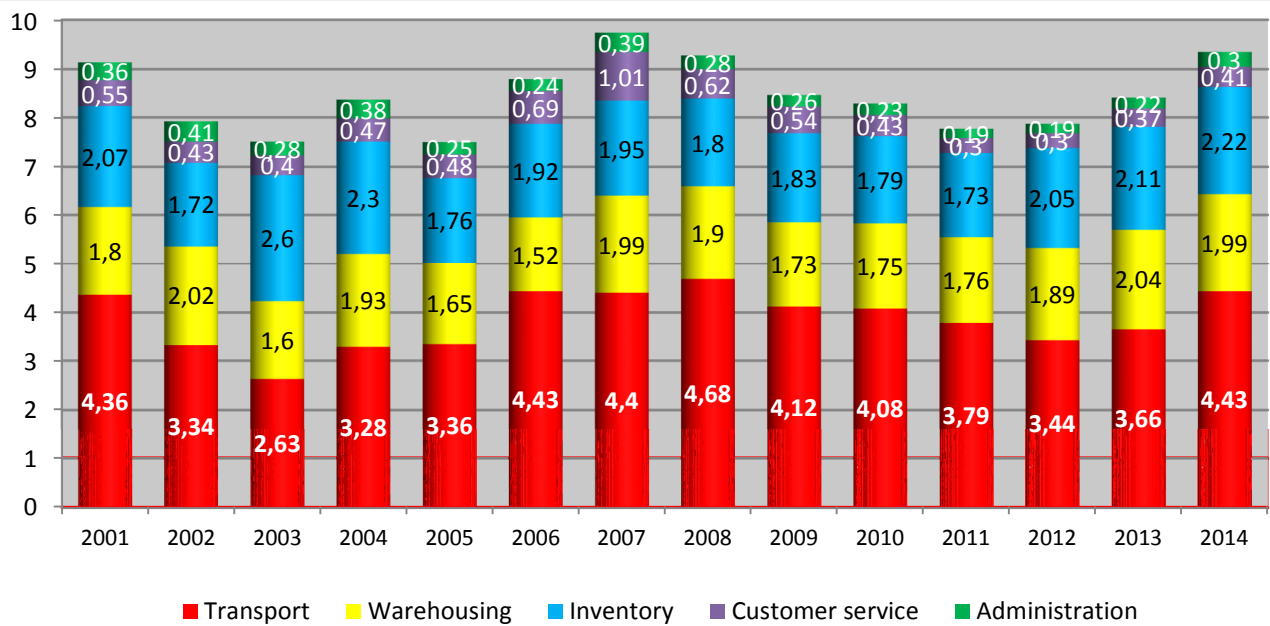


According to the latest research of the Establish-Davis, referring to 2014, the cost of logistics rose to 9.34% of sales compared to 8.41% in 2013, an increase of 11%, after the increase in the 7% on 2012, mainly due to the higher proportion of transportation costs, inventories and administrative



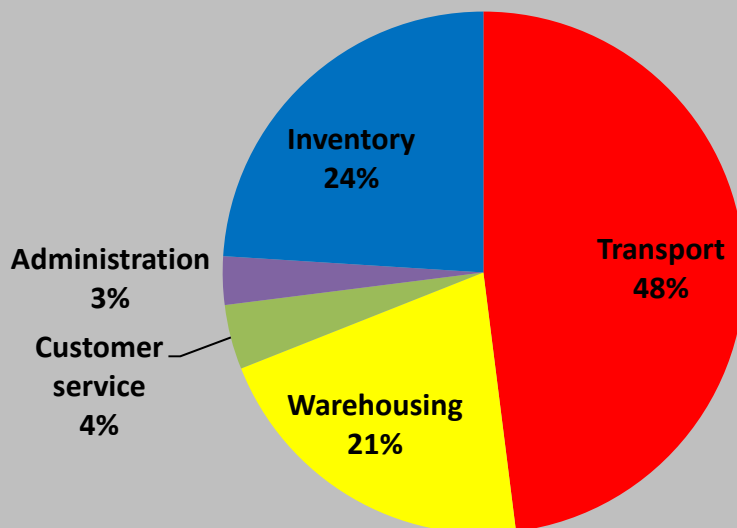
costs.

Over time, (see the graph shown below), this value was maintained on average over the past decade

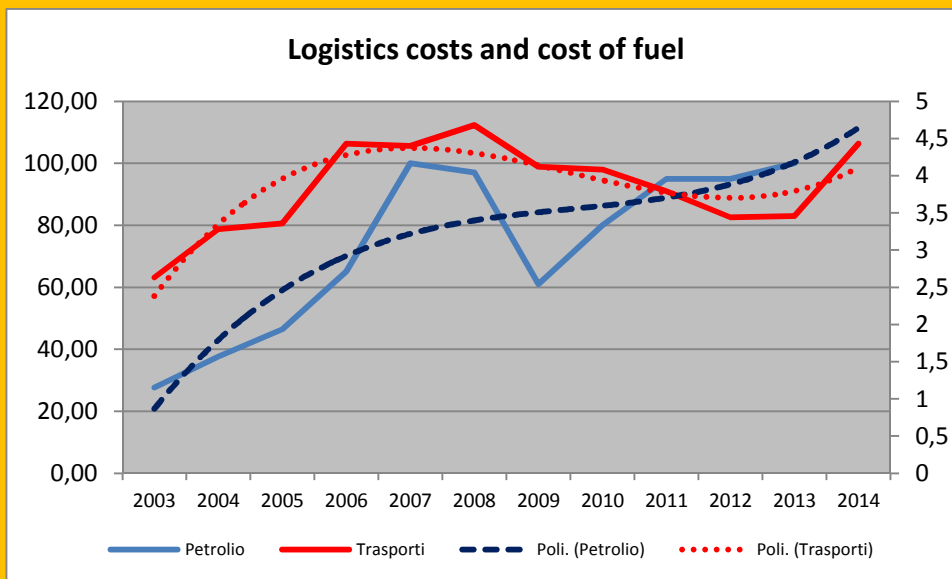


to levels of around 8%, with some fluctuations related to the various stages of the global economic cycle, but it took off again on values of the period pre-crisis from which it had gradually come down in the following years, until 2012..

% shares on logistic Costs - Source Establish Davis 2014

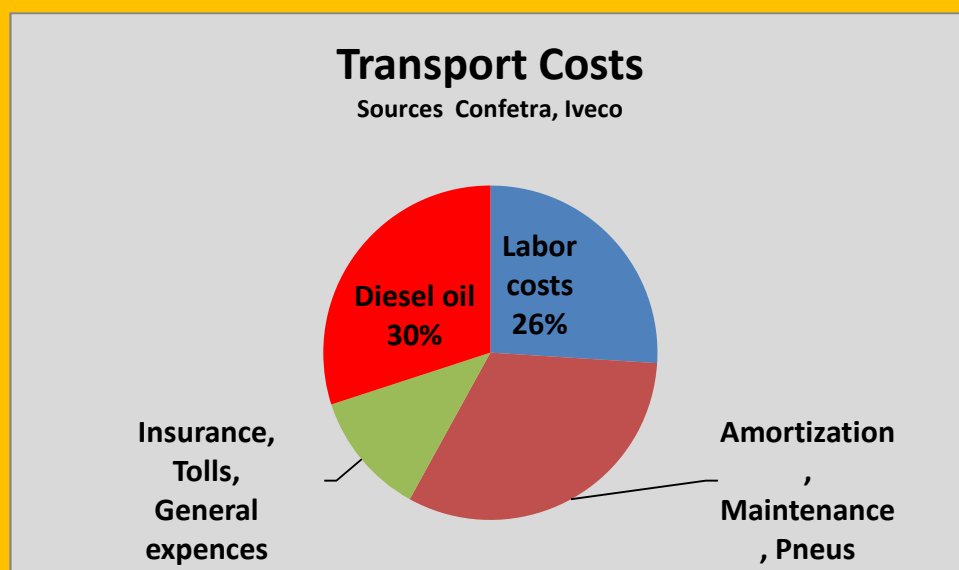


Among the various costs the most important is undoubtedly transport that in 2014 has contributed to 48% of logistic bill.



Undoubtedly the trend in oil prices has affected the costs of transport, especially in the period between 2003 and 2008, and then from 2010 to last autumn, as the fuel consumption account for 30% of transport costs, more than labor costs. The increase in fuel prices, especially since the end of 2011

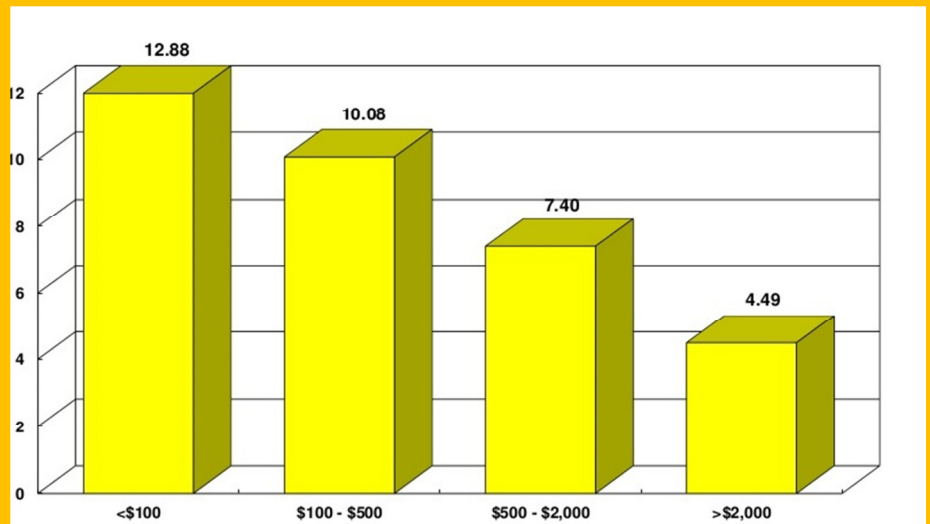
and 2013 and the first half of last year has justified the increase in the incidence of transport in the last years. It should be emphasized that the inputs for the analysis of 2014 were sent before the collapse of oil prices last autumn.



Among the most interesting conclusions of Establish presentation should be emphasized:

- The smaller companies (< U.S. \$ 100 million sales) have a percentage of logistics costs on sales more than triple that of larger ones, and the gap was much enlarged compared to the previous survey (2013)

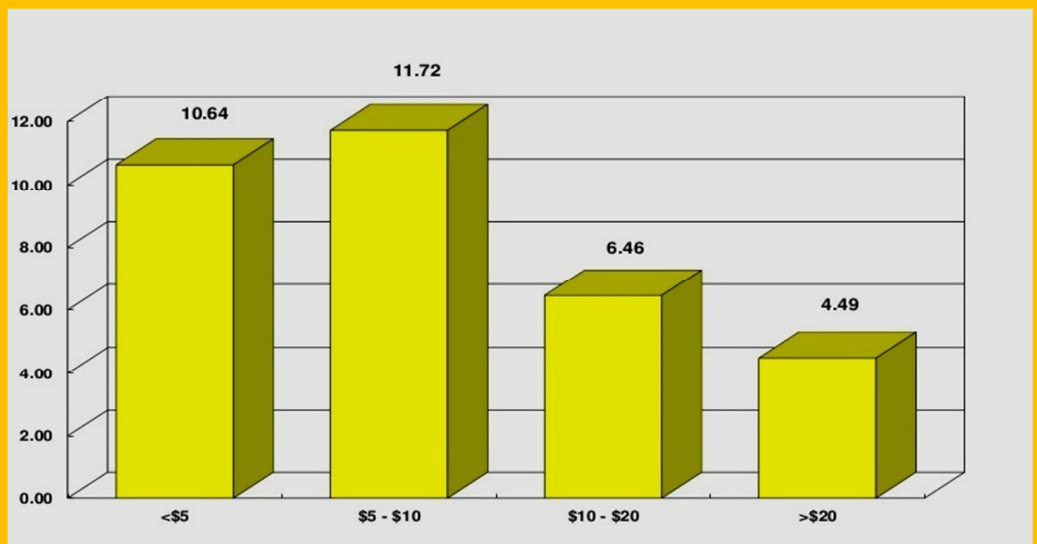
% Of logistics costs on sales



Annual sales in millions of dollars (Establish / Davis 2014)

- Companies whose products have a unit value of less than \$ 10 have an impact of logistics costs on sales up to 2.6 times those with products of higher value

% of logistics costs on sales



Product dollar value (Establish/Davis 2014)

Even AT Kearney arrived in 2011 to a value of about 7.7 %, (very close to the figure for that year of Establish-Davis) referred however to the EU-15, from the 5.9% that was foreseen for 2008, according to data compiled by the Society for the Italian Logistics Plan 2006

Despite the large efficiency gains of the previous fifteen years in 2006 it represented still about 6% of the of companies turnover, as EU-15 average, and the trend showed that these levels would be maintained for the foreseeable future. The deep changes undergone by the European Economy, with the serious crisis of 2008/9 have instead pushed up costs that today are probably not far from

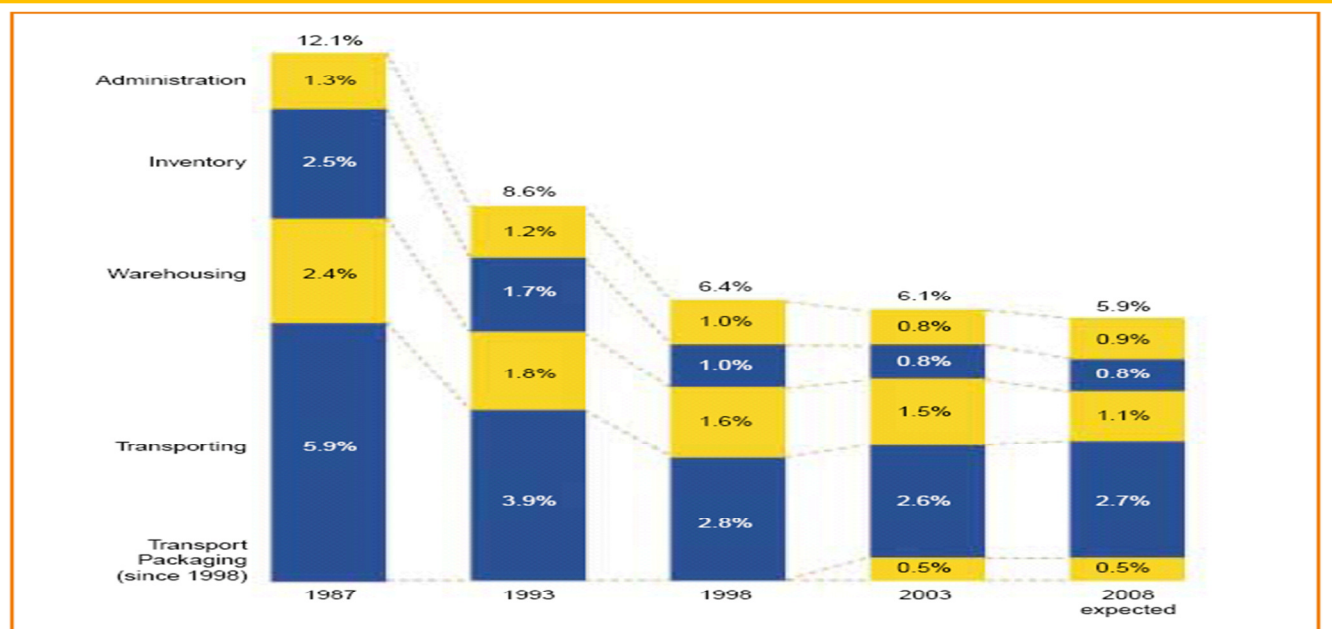
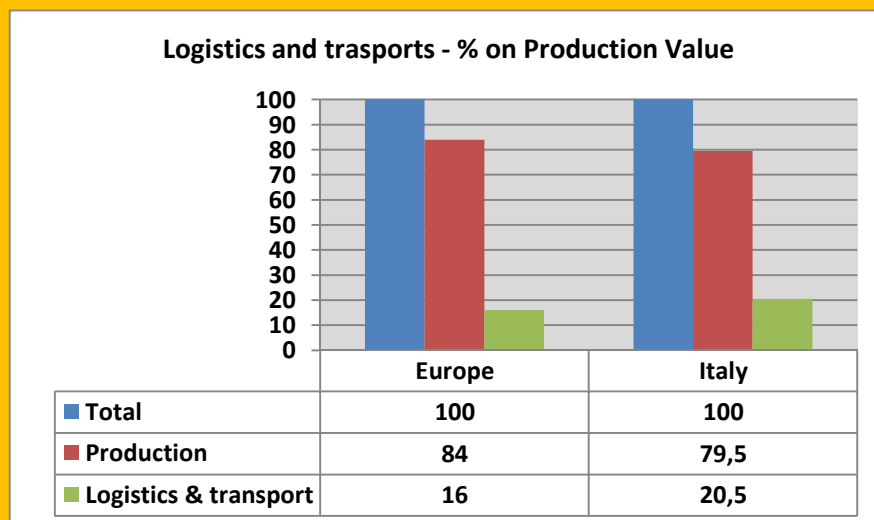


Figura 1.1. Andamento e previsione dei costi logistici medi europei

the ones indicated by Establish-Davis.

Impact of Logistics on the value of the products

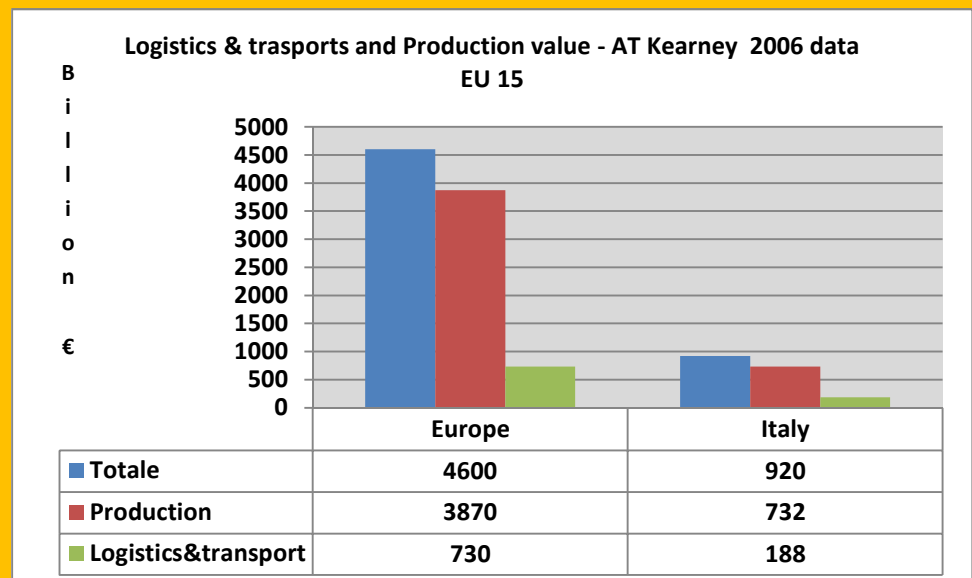
However, if you look at the cost of production, according to the estimate made by AT Kearney for



the 2006 General Plan of Transport, in Europe the sum of the costs of transport and logistics accounted for 16% of industrial production, while those in Italy costs were 20, 5 %. * This could be due in part to the different commodities included in the Italian production, in part by a lower efficiency of the logistics cycle of the country

than in the countries of comparison. An inefficient logistics also hampers productivity because it lengthens the time of delivery and makes it more complex supply transactions and sub-contracting relations between firms and downstream integration with the supply chain of commercial distribution.

The inefficiency of the logistics of our country accounted then for € 40 billion, a real tax on our economic and productive system. Most observers believe that the gap with the EU average has not changed in recent years.



If the incidence of the cost of logistics and transport on the value of production were then lowered by one percentage point this would produce a savings of about \$ 10 billion a year.

* Prof. Rocco Giordano confirmed these data in an article in the journal "Logistics Systems" of December 2010 (Year III - n. 4 - December 2010) where he states : " The European average costs of transport and logistics on the turnover of industry is 16%. In Italy authoritative sources agreed that the average is 20.5% with a deviation of 4.5 points.

Given that the industrial sales in 2009 was of about 920 billion, the estimate of this difference amounts to about 40 billion €.

The Research Department of the Bank of Italy , making similar assessments , estimates the gap between Italy and the European average of 4.6 percentage points (in 2008 we arrive at 40 billion € calculated on a turnover of 1 trillion and 20% of costs).

Compared to the 188 billion calculated as revenues of the transport and logistics sector, the "own account" bill just absorbs about 2/3, for a value of 122 billion, of which 48 billion of transport and 74 billion for other logistics costs. The "third account" represents 66 billion of which \$ 50 billion for transport and € 16 billion for other logistics costs!

Logistics Performance Index

The World Bank regularly publishes an index called LPI (Logistics Performance Index) which takes into account a number of indicators covering six areas: customs efficiency , quality of transport infrastructure and information technology , ability to organize competitive expeditions from the point of view of price, quality and competence of "logistics industry", tracking and tracing of shipment: frequency with which shipments reach the consignee within the time originally planned . On the basis of judgments about these factors an index of "logistics competitiveness" is elaborated ", which allows to assign a rank to each country. The 2014 LPI index places Italy in 20th

place in the world, after almost all other major European countries. The chart shows position and values of the most important countries for each of the six sub- profiles identified.

Country	LPI Rank	Previous rank	LPI Score	Customs	Infrastructure	International shipments	Logistics competence	Tracking & tracing	Timeliness
Germania	1	4	4,12	4,10	4,32	3,74	4,12	4,17	4,36
Olanda	2	5	4,05	3,96	4,23	3,64	4,13	4,07	4,34
Belgio	3	7	4,04	3,80	4,10	3,80	4,11	4,11	4,39
U.K.	4	10	4,01	3,94	4,16	3,63	4,03	4,08	4,33
Singapore	5	1	4,00	4,01	4,28	3,70	3,97	3,90	4,25
Svezia	6	13	3,96	3,75	4,09	3,76	3,98	3,97	4,26
Norvegia	7	22	3,96	4,21	4,19	3,42	4,19	3,50	4,36
Lussemburgo	8	15	3,95	3,82	3,91	3,82	3,78	3,68	4,71
U.S.A.	9	9	3,92	3,73	4,18	3,45	3,97	4,14	4,14
Giappone	10	8	3,91	3,78	4,16	3,52	3,93	3,95	4,24
Irlanda	11	25	3,87	3,80	3,84	3,44	3,94	4,13	4,13
Canada	12	14	3,86	3,61	4,05	3,46	3,94	3,97	4,18
Francia	13	12	3,85	3,65	3,98	3,68	3,75	3,89	4,17
Svizzera	14	16	3,84	3,92	4,04	3,58	3,75	3,79	4,06
H.K. Cina	15	2	3,83	3,72	3,97	3,58	3,81	3,87	4,06
Danimarca	17	6	3,78	3,79	3,82	3,65	3,74	3,36	4,39
Spagna	18	20	3,72	3,63	3,77	3,51	3,83	3,54	4,07
Italy	20	24	3,69	3,36	3,78	3,54	3,62	3,84	4,05
Austria	22	11	3,65	3,53	3,64	3,26	3,56	3,93	4,04
Finlandia	24	3	3,62	3,89	3,52	3,52	3,72	3,31	3,80
Portugal	26	28	3,56	3,26	3,37	3,43	3,71	3,71	3,87
Cina	28	26	3,53	3,21	3,67	3,50	3,46	3,50	3,87
Turchia	30	27	3,50	3,23	3,53	3,18	3,64	3,77	3,68
Grecia	44	66	3,20	3,36	3,17	2,97	3,23	3,03	3,50

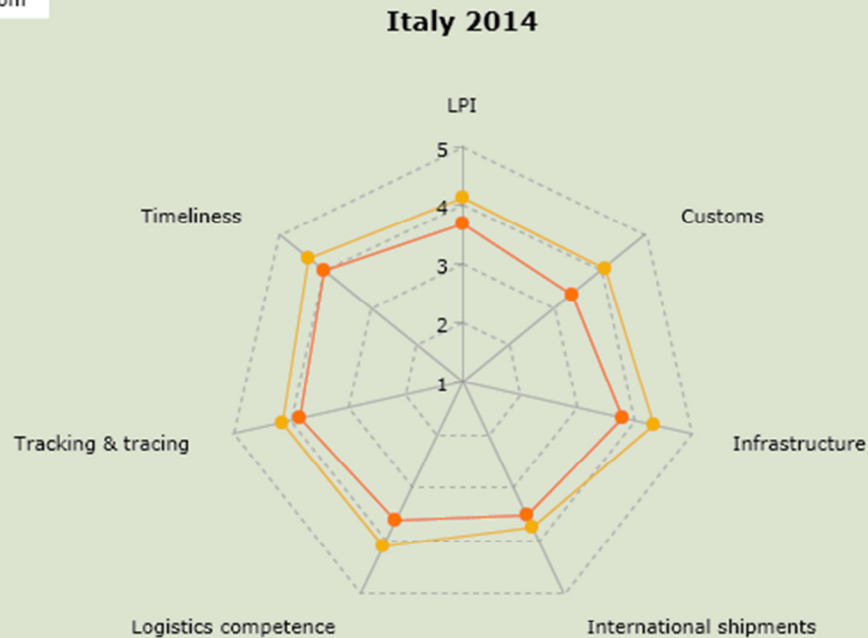
Fonte: dati World Bank

The next table shows the position of Italy in respect of the principal partners in the world for each of the six sub- profiles identified: the rank assigned to the profile of Customs appears to be particularly negative

	Germania	Olanda	Belgio	U.K.	Svezia	Norvegia	Francia	Giappone	USA	Italia
LPI Score	1	2	3	4	6	7	13	10	9	20
Customs	2	4	11	5	15	1	18	14	16	29
Infrastructure	1	3	8	6	9	4	13	7	5	19
International shipments	4	11	2	12	3	30	7	19	26	17
Logistic Competence	3	2	4	5	6	1	15	11	7	23
Tracking & tracing	1	6	4	5	7	31	12	9	2	14
Timeliness	4	6	2	7	8	5	13	10	14	22

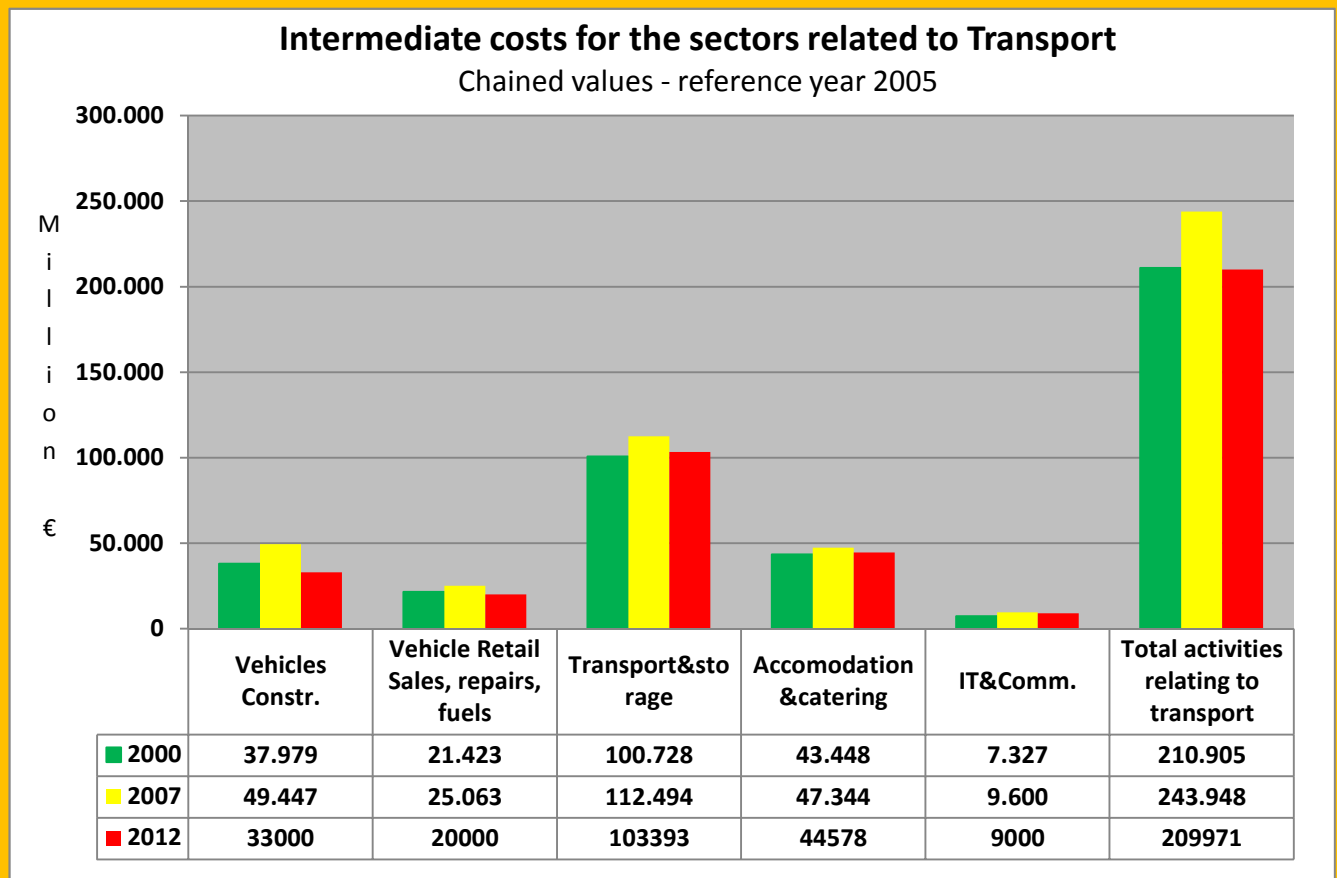
The chart below shows the trends in Italy compared to the top performers (Germany)
Unfortunately Italy, despite having improved compared to the previous survey is only in 20th place in the ranking of logistics efficiency. The inefficiency of the logistics of our country, as indicated above, amounts to 40 billion euro, a real tax on our economic and productive system.

chart by amcharts.com



Italy – Transport and GDP

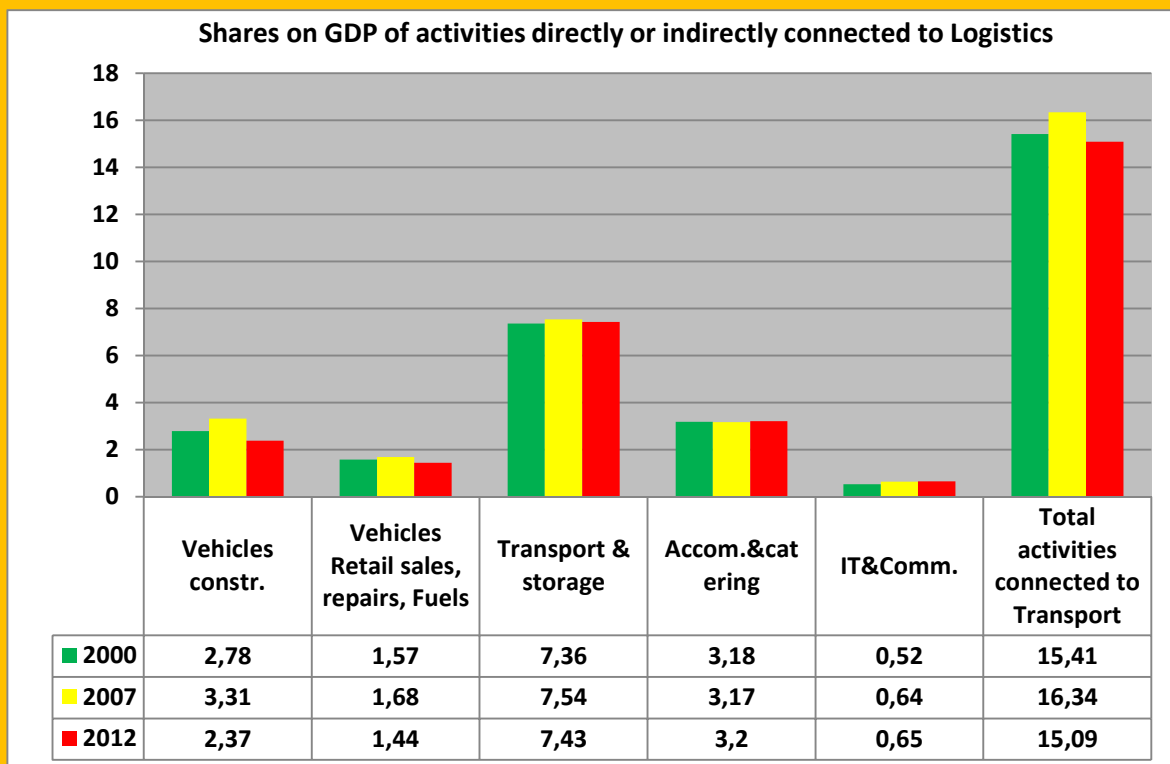
Even according to the most recent data, published the latest edition of the National Transportation Account, published at the end of last year with the data updated to 2012 the areas related to transport



maintain an overall weight, direct and indirect, estimated at around 15 % of GDP. It also includes the activities of storage of goods, material handling and relating control of information flows (in our case we considered 15 % of the total costs of information and communication - the percentage of total logistics activities on GDP).

All of these services, which are sometimes directly followed by the producers of goods himself, are included within the manufacturing and distribution activities in the national accounts classification.

The trend since 2000 shows relatively small deviations, partly because of the global crisis of 2008/9, which was reflected heavily on the activity of transport. Progressively increasing only the information and communication services and the cost of accommodation and catering...



Confining to the so-called “traditional logistics”, which includes substantially transportation and storage, it represents 7.4% of the GDP, in line with the international statistics previously discussed.

These data are indirectly confirmed by the findings of AT Kearney Study for Confetra of 2011, where they estimated at around 14% of GDP the weight of the logistics, including the “enlarged logistics” and just over 7% the so called “Traditional Logistics” concept (that includes essentially Transport and storage

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