THE U.S. ECONOMY, THE DOLLAR, AND THE FUTURE OF THE U.S. CERAMIC TILE MARKET

Donato Grosser

President, D. Grosser and Associates, Ltd. New York. U.S.A.

His firm, founded in 1984, provides international clients with specialized assistance in entering and increasing their presence in the American market. The firm's clients include manufacturers' associations, trade associations, banks, and individual manufacturers in the U.S., Italy, Canada and Japan. Educated in Italy, Mr. Grosser also has an MBA in Management and Marketing from NYU Graduate School of Business.

Mr. Grosser has been an active observer and commentator on the ceramic tile and related markets in North America since 1980 when he organized and became the Director of the American promotional campaign conducted by Italian Foreign Trade Institute and Assopiastrelle (the Association of Italian Ceramic Tile and Refractory Manufacturers).

He has authored numerous articles in both Italian and American periodicals regarding the tile industry and was awarded the Cesery Memorial Award by the Tile Contractors Association of America in 1989 for his "Outstanding Service to the Industry". Mr. Grosser was among a small group of individuals whose planning led to the organization and creation of the forerunner of Coverings.

1. THE DEVELOPMENT OF THE U.S. TILE MARKET

The ceramic tile market in the United States has become the fastest growing tile market in the world. The U.S. is number one importer of tiles and the first or the second most important customer for the largest tile exporting countries such as Italy, Spain and Brazil. It is also a major customer of the other exporters from South America and the Orient.

Before we analyze the economic situation and the future of the U.S. tile market, it is important to review how this market has developed since imported tiles became a major component of total American consumption.

1.1. FROM 1975 TO 1980

The tile market in the United States has undergone major changes over the past 30 years. Tile consumption has increased faster than the overall economy. In 1975, at 30 million square meters, U.S. tile consumption was only 10% of current tile consumption, (Table 1). Imports accounted for only 26% of total consumption. The main foreign supplier was Japan. Italian exporters had only a 4,6% market share of U.S. market, (Table 2).

Year	U.S. Shipments	Imports	Exports	U.S. Consumption	% Imports	% Imports from Italy	% Imports from Spain
2005 (Est.)	65,0	252,2	3,9	313,3	80,5%	21,9%	11,5%
2000	60,4	155,2	3,4	212,2	73,1%	27,8%	14,9%
1995	52,6	71,8	3,1	121,3	59,2%	20,9%	11,1%
1990	47,3	53,3	0,8	99,8	53,4%	22,7%	7,5%
1985	36,4	49,4	0,6	85,2	57,9%	21,9%	5,8%
1980	27,6	23,6	0,7	50,5	46,7%	17,0%	4,2%
1975	23,6	8,5	0,2	31,9	26,6%	4,6%	1,0%

Table 1. U.S. Ceramic Tile Consumption - Selected years 1975 to 2005, and market share of imports (million square meters and percentages) - Source: U.S. Dept. of Commerce

Japanese and Italian manufacturers were the first to introduce glazed floor tile. Prior to that time, most of the consumption of ceramic tile in the U.S. consisted of quarry tile, glazed wall tiles (chiefly 10x10 cm), or unglazed mosaic tiles. Distribution was primarily by direct shipments from manufacturer to contractor (Table 2).

American consumers then began to develop a taste for Italian design. The invention of a new method of manufacturing glazed tiles, (cottoforte), usable on floors as well as walls, made it possible to produce a vast array of designs and colors. This variety was well suited to the disparate decorative requirements of American consumers.

Between 1975 and 1980 tile consumption in the United States rose from 31,9 to 50,5 million square meters. At the same time the percentage of imports also rose to 46,7%.

Year	U.S. Tile Consumption (million S.M.)	% Imports Market Share	% Italy's Market Share	Main Suppliers	Types os Tiles	Channels of Distribution
1975	31,9	26,6%	4,6%	USA, Japan	Quarry tile, glazed wall, unglazed mosaic, cottoforte	- Contractors
1980	50,5	46,7%	17,0%	USA, Italy, Japan	Cottoforte, monocottura, glazed wall	- Contractors - Manufacturer's showroom - Importers
1985	85,2	57,9%	21,9%	USA, Italy	Monocottura, glazed wall	- Contractors - Manufacturer's showroom - Importers - U.S. manufacturers
1990	99,8	53,4%	22,7%	USA, Italy, Mexico, Spain	Monocottura, glazed wall, unglazed porcelain	- Contractors - Manufacturer's showroom - Importers - U.S. manufacturers - Home Centers
1995	121,3	59,2%	20,9%	USA, Italy, Mexico, Spain	Monocottura, Unglazed porcelain	- Contractor - Manufacturer's showroom - Importers - U.S. manufacturers - Home Centers - Floor covering manufacturers
2000	212,2	73,1%	27,8%	USA, Italy, Mexico, Spain	Monocottura, unglazed and glazed porcelain	
2005	313,3	80,5%	21,9%	USA, Italy, Spain,Mexico, Brazil, China	Glazed an unglazed porcelain	

Table 2. The Development of the U.S. Ceramic TILE MARKET (1975-2005)
Source: D. Grosser and Associates, Ltd., New York

In 1979 Marazzi of Sassuolo opened a factory in Dallas, Texas. It was the first foreign manufacturer to produce tiles in the United States. In 2000, following the Marazzi's acquisition of Monarch Tile and the successive expansion and modernization of its plant, Marazzi became the second largest American tile producer. Dal Tile is the largest and Florim and Florida Tile round out the top four, (Table 3).

MANUFACTURER	PLANTS	MANUFACTURING CAPACITY
DAL TILE (*)	9	26,0
AMERICAN MARAZZI MONARCH (**)	2	17,0
FLORIM (**)	1	11,0
FLORIDA TILE	2	8,5
CROSSVILLE	1	7,5
LAUFEN- U.S. CERAMIC (***)	1	5,0
GRANITI FIANDRE (**)	1	4,5
INTERCERAMIC (****)	2	3,0
OTROS	5	5,0
TOTAL	24	87,5

(*) The plant in Muskogee with 7,5 million square meter capacity is a joint venture with Emilceramica of Italy.
(**) Italian owned (***) Owned by Roca of Spain. (****) Mexican owned.

Table 3. U.S. Tile manufacturing capacity (2005) (million square meters)
Source: D. Grosser and Associates, Ltd. and industry sources.

1.2. FROM 1980 TO 1985

As the influence of Italian ceramic tile manufacturers became increasingly visible due to the superior style of their products, several Italian manufacturers began to sell single fired tiles *(monocottura)*. With this technology the glaze was applied to the unfired tile body and a single firing was performed. This reduced the amount of energy needed and for this and other reasons permitted tiles to be produced both more rapidly and with lower costs.

Over this five year period Italy became the leading foreign supplier to the American tile market. American tile consumption rose from 50,5 million square meters in 1980 to 85,2 million square meters in 1985. In 1985 imports accounted for 57,9% of U.S. tile consumption, and Italy's share reached 21,9% of the total.

During this period many tile contractors expanded into the distribution chain by opening retail stores and importing tiles directly or through affiliated companies. For a while they were the only distribution channel for ceramic tile. Some local manufacturers found themselves in a difficult situation because of their inability to compete with technologically superior and more fashionable products coming from Europe.

In the meantime the pace of expansion of the ceramic tile market had attracted the attention of major flooring manufacturers. Sales of carpeting and vinyl, the largest selling flooring products were sluggish, and these manufacturers believed that by adding tile to their product mix they could increase sales and profits.

In 1984 Mannington purchased the Mid State Tile quarry factory in North Carolina and began production under the Mannington Tile brand name, and in 1988 the company opened a new factory for the production of single fired tile.

1.3. FROM 1985 TO 1990

The expansion of the tile market continued at a fast pace. Consumption rose from 85,2 million square meter in 1985 to 99,8 million square meters in 1990. By then Italy had firmly established its position as the leading foreign supplier to the American market. This happened despite the fact that imports (53,4% of total tile consumption), had lost market share over 1985 because of the economic recession that began in 1989. This had caused the closure of many importing companies that were thinly capitalized and unable to cope with a sudden decrease in sales.

Single fired tiles were by now the favorite tile products among American consumers. Several American manufacturers, unable to compete with foreign manufacturers, began to import single fired tiles from Italy. At the same time, Home Centers began to sell ceramic tile besides other flooring products, and by 1987 they controlled about 5% of U.S. ceramic tile sales.

Following the example of Mannington, and attracted by the high expansion rate of the ceramic tile market, in 1988 Armstrong World, the leading American manufacture of vinyl floor covering, acquired the American Olean Tile Company for $330 million. American Olean was the largest ceramic tile manufacturer in the country with a prestigious name and a strong distribution network of 65 company owned distribution centers and 120 independent distributors.

1.4. FROM 1990 TO 1995

In the early 1990's, Spanish manufacturers made a large entry into the American market, notwithstanding the slow growth of the total during this period. The economic recession was particularly severe, affecting first the East Coast and the Southern regions of the country and then the West Coast. Despite this, in five years consumption increased from 99,8 to 121,3 million square meters.

Market share of imported products rose to 59,2%. However, the share of tiles imported from Italy declined for the first time, dropping from 22,7% to 20,9%, due, primarily to the emphasis by the consumer on the price of tile and to competition from Spanish and Mexican manufacturers.

In 1992 Congoleum, one of the three largest vinyl flooring manufacturers in the country started to purchase ceramic tile from other manufacturers, selling under its own brand name to floor covering stores.

These first ventures into the ceramic tile market by U.S. flooring material manufacturers were not successful. Mannington discontinued production and sold its plants, and Armstrong World lost hundreds of millions trying to modernize the obsolete American Olean plants. These companies had entered the tile market too early. Their customers were mainly floor covering retailers, who were not yet properly set up to sell ceramic tiles. Both Mannington and Armstrong World sold their plants to Dal Tile, who eventually became the largest tile manufacturers in the Western Hemisphere.

1.5. FROM 1995 TO 2000

The five year period from 1995 to 2000 saw the most extraordinary expansion of the ceramic tile market in the United States, with total consumption rising from 121,3 to 212,3 million square meters. This expansion was mainly generated by the increase in imports (from 59,2% of total consumption in 1995 to 73,1% in 2000) whereas local production increase only by a small amount.

Market share of Italian and Spanish manufacturers continued to rise, and suppliers from Brazil, Turkey and Venezuela began to make headway in the market.

Much of the expansion in tile sales was due to the opening of new stores by the main home center chains such as Home Depot and Lowe's. Their successful formula allowed them to rapidly increase sales as new store were added. By 2000 sales of ceramic tile by Home Centers made up approximately 15% of total U.S. consumption.

The expansion of Home Centers was the primary reason for the demise, in 1996, of Color Tile, the largest chain of flooring retailers, with 824 stores and yearly sales of $700 million.

Unglazed porcelain tile were introduced into the U.S. as early as the 1980's. However, by the mid Nineties they became a sizable segment of the tile market with a 12% share. They were originally imported only from Italy. The leadership of the Italian tile industry continued with the introduction of glazed porcelain tile.

The phenomenal expansion of the Italian products in the U.S. market, first with double fired tiles, then monocottura, unglazed porcelain and glazed porcelain, clearly demonstrated that technology was the most important factor for success.

1.6. FROM 2000 TO 2005

At the turn of the century it became apparent that technological innovation in the industry had stalled. Without new technologies leading the way, international competition increased. Manufacturers all over the world acquired the latest machinery, and in a few years, Italy, Spain and Mexico were no longer the only relevant players in the import market. By 2005 Brasil and China had become important suppliers to the U.S. tile market, and other countries such as Indonesia, Turkey, Colombia, Thailand and Venezuela had found their niches.

In the meantime, with a rising interest for ceramic tile among floor covering retailers, other American floor covering manufacturers had ventured into the market. Mohawk, the second largest carpet manufacturer acquired Dal Tile, and Shaw Industries, the number one manufacturer of carpeting, began selling imported ceramic tiles to its retailers. Thus the source of the tiles has become less important as these large floor covering manufacturers sell tile under their own brand name.

After thirty years of almost continuous expansion, the U.S. ceramic tile market has entered a new stage. The high rates of expansion of the 1990s (at an average of 10% per year) are a thing of the past. Over the next five years expansion will slow down due to the increase in interest rates and an expected reduction in housing activity.

In the past thirty years a drastic transformation has occurred. In 1975 U.S. manufacturers controlled 74% of the market. In 2005 80% of tiles sold in the U.S. were imported (Figure 1).

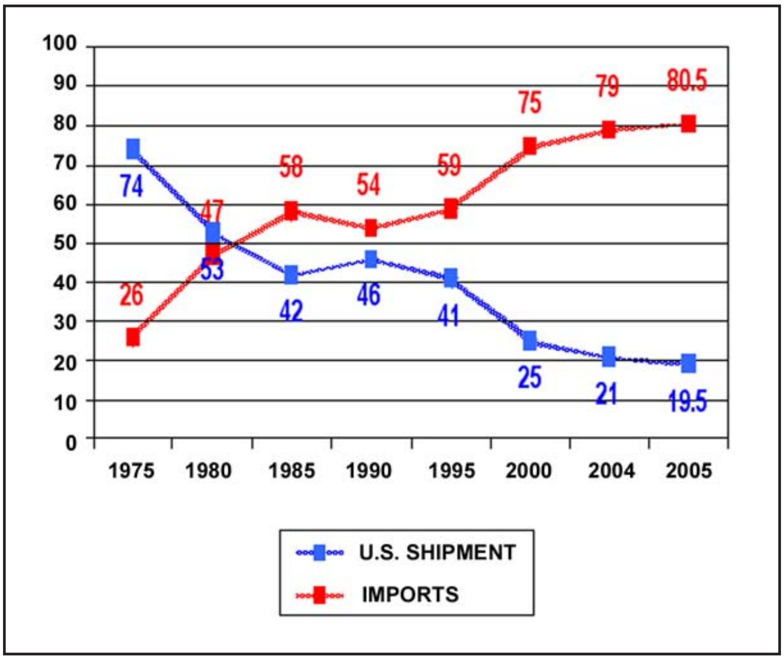

Figure 1. U.S. ceramic tile consumption and import penetration (percentages)

A substantial number of U.S. tile factories both American and foreign owned (Armstrong World, Mannington, Huntington Pacific, Winburn, Florida Brick and Tile, Tileworks, KPT, Tilecera, Monarch, Summitville, Edilgres, Ceratile, Imac and others), unable to compete, ceased operations or were sold to other manufacturers. In 2005 there were eight major tile manufacturers in the U.S. with a total of 19 plants. The largest is Dal Tile with nine plants (another one is in Mexico). Three manufacturers are Italian (Marazzi, Florim and Graniti-Fiandre), one Spanish (Laufen) and one Mexican (Interceramic). About 50% of U.S. manufacturing capacity is now under foreign ownership, (Table 3).

<table>
<tr><th colspan="6">MANUFACTURERS</th></tr>
<tr><td colspan="3">U.S. TILE MANUFACTURERS</td><td colspan="3">FOREIGN TILE MANUFACTURERS</td></tr>
<tr><td colspan="6">U.S. FLOOR COVERING MANUFACTURERS</td></tr>
<tr><td colspan="6">DISTRIBUTORS AND SHOOWROOMS</td></tr>
<tr><td colspan="2">U.S. MANUFACTURERS SHOOWROOMS</td><td colspan="2">FLOOR COVERING DISTRIBUTORS</td><td colspan="2">TILE DISTRIBUTORS</td></tr>
<tr><td colspan="6">RETAILERS</td></tr>
<tr><td colspan="2">FLOOR COVERING RETAILERS</td><td colspan="2">TILE RETAILERS</td><td colspan="2">HOME CENTERS</td></tr>
<tr><td colspan="6">FINALS USERS</td></tr>
<tr><td colspan="3">BUILDERS-CONTRACTORS</td><td colspan="3">CONSUMERS-DESIGNERS-ARCHITECTS</td></tr>
</table>

Figure 2. U.S. ceramic tile distribution chain.

From the year 2000 to 2005 tile consumption increased by an additional 100 million square meter from 212,2 to approximately 313 million square meters.

2. THE U.S. ECONOMY AND THE HOUSING MARKET

The expansion of the tile market has been driven, in large part, by the expansion of the U.S. economy and of the housing sector. The largest increase in U.S. tile consumption occurred between the years 1990 and 2005 when sales of tiles rose from about 100 to over 300 million square meters.

After a steep downturn, the housing market started to recover in 1983. Interest on 30 year fixed mortgages rates had increased from 9,05% in 1975 to 16,6% in 1981. High interest rates put the brakes on the U.S. economy and were one of the main factors in the defeat of President Carter by Ronald Reagan in 1981, (Table 4).

By 1982 interest rates had barely declined to 16,04% but in 1983 rates came down steeply to 13,24%; they went up in 1984 to 13,88% and from then on there was a continuous decline to 10,13% in 1990, to 7,93% in 1995, and to 5,8% in 2003.

Year	30 Year Fixed Rate	1 Year Adjustable Rate
1975	9,05	N/D
1980	13,74	N/D
1985	12,43	10,05
1990	10,13	8,36
1991	9,25	7,09
1992	8,39	5,62
1993	7,31	4,58
1994	8,38	5,36
1995	7,93	6,06
1996	7,81	5,67
1997	7,60	5,61
1998	6,94	5,58
1999	7,44	5,99
2000	8,05	7,04
2001	6,97	5,82
2002	6,50	4,60
2003	5,80	3,80
2004	6,30	4,10
2005	6,40	5,10

Table 4. 30 year mortgage interest rate in the U.S. and 1 year adjustable rates - Source: Freddie Mac.

Year	Total	Simple Family
1982	1062,2	662,6
1983	1703,0	1.067,5
1984	1749,4	1.084,1
1985	1741,7	1.072,3
1986	1805,4	1.179,5
1987	1620,6	1.146,3
1988	1488,0	1.081,4
1989	1.376,1	1.003,4
1990	1.192,6	894,9
1991	1.014,0	840,4
1992	1.199,6	1.030,1
1993	1.287,6	1.125,6
1994	1.457,0	1.198,4
1995	1.354,2	1.076,3
1996	1.476,9	1.160,9
1997	1.464,0	1.133,6
1998	1.616,9	1.271,4
1999	1.640,9	1.302,4
2000	1.568,7	1.230,9
2001	1.603,0	1.273,3
2002	1.705,0	1.359,0
2003	1.848,0	1.499,0
2004	1.953,4	1.608,4
2005 (Est.)	2.014,0	1.704,0

Table 5. Housing starts in the U.S. (1982-2005) - Source: U.S. Department of Commerce.

Housing Starts, at 1.062.200 units in 1982, jumped almost 60% to 1.703.000 units in 1983 following a three point decline in mortgage interest rates. After reaching a peak in 1987 with 1.805.400 units, the housing market declined to a low point of 1.014.000 units in 1991. From then on there has been a continuous increase in housing starts to over 2 million units in 2005, (Table 5).

The tile market depends for a large part on new construction, and new construction is affected by interest rates. With interest rates going down, new construction increased and more tiles were sold.

Another important factor affecting ceramic tiles sales are sales of existing homes which are also strongly influenced by interest rates: from 1990 to 2005 sales of existing homes went up from 3,2 to 7,3 million units, (Table 6).

Year	Existing	New	Condominiums	Total
1990	3.219.000	534.000	350.000	4.103.000
1991	3.186.000	509.000	339.000	4.034.000
1992	3.479.000	610.000	366.000	4.455.000
1993	3.786.000	666.000	401.000	4.853.000
1994	3.916.000	670.000	437.000	5.023.000
1995	3.888.000	667.000	428.000	4.983.000
1996	4.196.000	757.000	476.000	5.429.000
1997	4.382.000	804.000	524.000	5.710.000
1998	4.970.000	886.000	606.000	6.462.000
1999	5.205.000	880.000	682.000	6.767.000
2000	5.113.000	877.000	702.000	6.692.000
2001	5.296.000	908.000	746.000	6.952.000
2002	5.516.000	973.000	820.000	7.309.000
2003	6.100.000	1.086.000	898.000	8.083.000
2004	6.784.000	1.106.000	N/A	N/A
2005	7.280.000	1.222.000	N/A	N/A

Table 6. U.S. home sales, new and existing (1990-2003) - Source: National Associaton of Realtors, U.S. Dept. of Commerce.

After purchasing new homes, most homeowners initiate remodeling projects. Some of the most frequent remodeling projects are the renewal or the reconstruction of kitchens and baths, the areas of the home where ceramic tiles are used the most.

An additional factor is the increase in popularity of ceramic tile. With prosperous American consumers upgrading to better and more expensive flooring products, carpeting and vinyl have lost market share in favor of ceramic tiles, parquet flooring and laminates.

Finally, the increased supply of ceramic tile by low cost manufacturers (mainly from Brazil and China), have lowered the average prices of ceramic tile, and with lower prices sales have gone up.

3. U.S. IMPORTS AND THE DOLLAR

The introduction of the Euro in 1999 had a major impact on imports from Europe, in general, and on the imports of ceramic tile, in particular. Incidentally, the United States has never exported a significant amount of ceramic tiles.

In January 1999 the Euro was fixed at an average rate of exchange of 1,1591 Dollars=1 Euro (Table 7). To some observers this rate seemed to overvalue the Euro, and indeed the new currency began a steep decline. In December 1999 the rate of exchange had gone down to 1,01 Dollars=1 Euro. In December 2000 it was at 0,90 Dollars = 1 Euro, resulting in a 29% decline from its original value.

Then in January 2002 the Euro rose quickly to 1,06 Dollars. By December 2003 it had reached 1,23 Dollars, and it peaked at 1,34 Dollars in December 2004. In 2005 there was a reversal and by mid November 2005 the Dollar had recovered some ground to 1,17 = 1 Euro.

END OF DECEMBER OF YEAR	EURO	CHINESE YUAN	MEXICAN PESO	BRAZILEAN REAL
2005	1,18	8,09	10,73	2,20
2004	1,34	8,28	10,20	2,71
2003	1,23	8,28	10,25	2,92
2002	1,19	8,28	10,22	3,62
2001	0,89	8,28	9,06	2,36
2000	0,90	8,28	9,47	1,96
1999	1,01	8,28	9,43	1,84
January 1999	1,16			

Table 7. Value of U.S. Dollar Versus Selected Curriencies (1999-2005) - Source: Federal Reserve.

The decline of the Euro from 1999 to the end of 2001 was a shot in the arm of manufacturers from Italy and Spain, the two main European exporting countries. Having their tiles become less expensive in Dollar terms, they used this decline to reduce prices and to increase profit margins, which had been eroded because of competition.

The 17% increase in value of the Euro in 2002 was absorbed by manufacturers who had accumulated a large margin of maneuver in pricing. However, the subsequent 16% increase in the value of the Euro in 2003, had a devastating effect on Italian and Spanish manufacturers. In 2003 imports from Italy and Spain combined reached a peak of 106 million square meters. From then on imports from these two countries lingered at about the same level - 103 million square meter in 2004 and approximately 104 million square meters in 2005. This was a drastic change from previous ten years when Italy and Spain where the main beneficiary of any expansion of ceramic tile consumption, and exports from these countries had increased at a brisk pace.

The increase in prices caused by the strengthening of the Euro vs the Dollar put a halt to the sales expansion of tiles imported from Italy and Spain. The average prices of tile imported from Italy per square meter went up from $9,48/s.m. in 2002, to $10,13/s.m. in 2003, and from Spain from $6,17/s.m. to $6,41/s.m. In 2004 the average price of imported Italian tile was at 11,34/s.m. and of Spanish tile at $7,17, s.m.; and as of September 2005 they were at $12,48/s.m. from Italy and at $7,75/s.m. from Spain (Table 8).

COUNTRY	1999	2000	2001	2002	2003	2004	Sept. 2005
ITALY	9,88	9,45	9,56	9,48	10,13	11,34	12,48
SPAIN	6,77	6,47	6,24	6,17	6,41	7,17	7,75
MEXICO	5,36	5,41	5,34	5,78	5,65	5,68	5,84
BRASIL	4,97	4,55	4,42	4,19	4,11	4,00	4,26
CHINA	-	-	-	4,30	3,82	3,94	3,79
OTHERS	6,08	6,22	5,44	5,21	4,83	4,87	5,22
TOTAL	7,34	7,20	6,97	6,83	6,90	7,05	7,35

Table 8. Average F.O.B. value per sq. meter of U.S. tile imports (1999-2005)
Source: D. Grosser and Associates, Ltd. from data U.S. Dept. of Commerce.

These unprecedented changes shook the equilibrium in the import market. Even if Italian and Spanish manufacturers attempted to absorb the increase in prices caused by the fall of the Dollar, once prices started to go up, U.S. importers began to look for alternative suppliers. Of course, there were now suppliers willing to offer tiles at lower prices. There was an upsurge in imports from Brasil, from 15,6 million square meters in 2001 to 22,3 m.s.m. in 2002, to 27,5 m.s.m. in 2003, to 36,8 m.s.m. in 2004 and to approximately 42 m.s.m in 2005. Until 2001 China was a very minor supplier of tile to the United States. However in 2002 it was already exporting 3 million square meters, in 2003 5,2 m.sm, in 2004 10,2 m.sm. and in 2005 it approached 20 million square meter (Table 9).

COUNTRY OF ORIGIN	2002		2003		2004		Sept 2005	
	Million square meters	%	Million square meters	%	Million square meters	%	Million square meters	%
ITALY	65,8	26,8%	70,7	26,7%	68,5	23,5%	50,54	21,7%
U.S.A.	56,5	23,0%	57,9	21,8%	60,8	20,8%	45,80	19,6%
SPAIN	36,4	14,8%	35,6	13,4%	34,0	11,6%	26,63	11,4%
MEXICO	26,9	11,0%	27,1	10,2%	30,7	10,5%	28,79	12,3%
BRASIL	22,3	9,1%	27,5	10,4%	36,8	12,6%	31,37	13,5%
CHINA	3,0	1,2%	5,2	2,0%	10,2	3,5%	15,50	6,6%
OTHERS	34,5	14,1%	41,1	15,5%	51,0	17,5%	34,57	14,8%
TOTAL	245,4	100,0%	265,1	100%	292,0	100,0%	233,2	100%

Table 9. U.S. tile consumption by country of origin (2002-2005)
Source: D. Grosser and Associates, Ltd. from data U.S. Dept. of Commerce.

Thus the increase in the value of the Euro had an accelerating effect on the market. Imports from Italy and Spain would have slowed down anyway because of the competition. But most probably they would not have so abruptly stalled as occurred in the years 2003 and 2004.

The elimination of their national currencies has taken away a very important tool from which many European exporters had benefited. Over the years Italy with the Lira and Spain with the Peseta, had orchestrated fine tuned devaluations in order to protect their exports. Now exporters were left without any monetary protection.

Indeed, for them and for other exporters to America, the Euro did much to first open up the markets to competition from countries not within the European Union.

Imports of tile from Italy went up from 57,7 million square meter in 2001 to 65,8 m.s.m in 2002, they peaked at 70,7 million square meter in 2003, they eased to 68,5 m.s.m. in 2004 and remained at approximately the same level in 2005. U.S. imports from Spain went up from 31,7 million sq. meter in 2001 to 36,4 m.s.m. in 2002; then they came down to 35,6 m.m. in 2003 and to 34 m.s.m in 2004. In 2005 they appeared to have recovered some lost ground to over 36 million square meters (Table 9).

4. THE FUTURE OF THE U.S. TILE MARKET

In order to make some forecast on the future of the U.S. tile market, we have to look at the main suppliers of ceramic tile, and to analyze their relative strengths and weaknesses. Additionally, we have to take into consideration the behavior of consumers and the future economic climate, including interest rates, housing activity, and remodeling.

4.1. THE U.S. ECONOMY

From 1992 to 2004, the United States have benefited from an expanding economy at rates that have ranged from 0,8% to 4,6%. In average the economy has expanded at a rate well above 3%. The economy slowed down in the year 2001(+0,8%), it began to recover in 2002 (+1,5%) and it expanded at a healthy rate in 2003 (+3%) and in 2004 (+4%) (Table 10).

Year	GNP Anual Average	Year Over Rates
1992	7.372	3,3%
1993	7.569	2,7%
1994	7.864	3,9%
1995	8.07	2,6%
1996	8.365	3,7%
1997	8.737	4,4%
1998	9.089	4,0%
1999	9.505	4,6%
2000	9.856	3,7%
2001	9.934	0,8%
2002	10.079	1,5%
2003	10.59	3,0%
2004	10.932	4,0%
2005 (Est.)	11.177	2,2%

Tabla 10. U.S. gross national product, annual averages and year over changes (billion of 2000 dollars)
Source: Federal Reserve Banc - Dallas.

This expansion was generated at a large extent by the tax cut voted by Congress in 2001 and by the gradual lowering of interest rates by the Federal Reserve.

This policy of lowering interest rates was aimed at avoiding a deflationary situation and a full fledged recession. The strategy worked well: in the year 2000 the average interest rates for 30 year fixed home mortgages was 8,05%. In 2001 came down to 6,97%, then 6,5% in 2002, and 5,8% in 2003 (Table 4). The market reacted positively to these rates reductions and the housing sector became the "locomotive" that kept the U.S. economy out of a recession.

The increase in energy prices experienced in the year 2005 has affected many sectors of the economy by increasing costs at all levels.

In 2005 the Federal Reserve, having obtained its goals of avoiding a recession, has become concerned about inflation. Interest rates are going up again. One of the first sectors of the economy to feel the pinch of raised rates is the housing sector.

4.2. THE CERAMIC TILE MARKET

If we look at the way the ceramic tile market expanded since 1993, we can observe that the increase in ceramic tile consumption in any given year appears to be correlated to the rate of interest level in the previous year (Table 11).

Year	U.S. Tile Consumption	Yearly % Change	30 Year Mortgage Interest Rate	Yearly Change in GNP
2005 (EST.)	3133	7.3%	6.4	2,2%
2004	2920	10.1%	6.3	4,0%
2003	2651	8.0%	5.8	3,0%
2002	2455	16.2%	6.5	1,5%
2001	2113	-0.4%	6.97	0,8%
2000	2122	9.1%	8.05	3,7%
1999	1947	15.1%	7.44	4,6%
1998	1692	13.0%	6.94	4,0%
1997	1497	13.2%	7.6	4,4%
1996	1322	6.5%	7.81	3,7%
1995	1241	3.7%	7.93	2,6%
1994	1197	8.2%	8.38	3,9%
1993	110.6	15.9%	7.31	2,7%

Table 11. Yearly changes in U.S. tile consumption and G.N.P., and mortgage rates
Source: D. Grosser and Associates, Ltd. from data U.S. Dept. of Commerce.

If the hypothesis of such a correlation is correct, we can expect the rate of increase of consumption of ceramic tile in the next five years to go down from an average rate of 10% per year to 5-7%.

4.3. TILE DISTRIBUTION

One of the first observations about the distribution of ceramic tile in the U.S. is that the system is not organized with a clear cut chain of distribution from manufacturer to consumer. The largest U.S. manufacturer (Dal Tile) sells 80% of its products through its 240 showrooms; only 20% is sold through distributors or to Home Centers. Many manufacturers, both domestic and foreign, sell directly to large retailers such as Home Depot and Lowe's. Most tile distributors operate at the same time as importers and retailers.

80% of tiles sold in the U.S. are imported. About 16% are sold directly to U.S. tile manufacturers who resell the product under their brand name. Over 20% of the tiles are sold directly from manufacturers to Home Centers. Tile distributors handle a little less than 40% of all tiles sold in the country (See Distribution Chart).

The two largest flooring manufacturers (Shaw and Mohawk) buy from domestic and especially from foreign manufacturers and sell to retailers without the intermediation of distributors. These companies have been the main factor of change in tile distribution in the past 10 years, carving a market segment for themselves and taking away market share from tile distributors and especially floor covering distributors.

How will tile distribution be affected if consumption will increase at a slower pace?

First of all the rising consumption of ceramic tile has had a great effect in the development of sales through Home Centers. Secondly, the increased demand of tile by the consumer has made it possible for companies such as Shaw and Mohawk to sell more and more ceramic tile to floor covering retailers. These two fast growing channels of distribution, (especially Home Centers with new stores being opened every year), are quite vulnerable to a downturn. Specialized tile distributors and retailers, whose number has not substantially changed in the past ten years, may be better able to weather a slowdown.

5. CONCLUSION

For the next five years we can expect increasing imports from the Far East and South America. Companies such as Laufen (Roca), Marazzi, Florim and GranitiFiandre will try to rationalize their local manufacturing and distribution. In this they may be favored by the fact that the cost differential between tiles manufactured in the U.S. and those imported from the Far East is not that great (and certainly much smaller than with tiles imported from Europe) considering that maritime shipping and duties add 20% to 30% to the landed cost of tiles.

The market share of Spanish and Italian exporters will probably continue to decline, and these manufacturers will have to stress leadership in design and product innovation. Ceramic tile has become a fashion product for the home. Tiles can be sold at all price levels as long as the products are fashionable.

The image of the manufacturer has become more important than ever. The consumer has little incentive in buying a more expensive product if he or she can find a similar one at a cheaper price. The image of tiles Made in Italy or Made in Spain has to be supported with large advertising and promotional budgets. The entry into the market of Shaw and Mohawk has weakened the branding by country of origin. These companies, with recognized and established names in the marketplace, purchase from local or foreign manufacturers and sell under their own brand name. They anticipate that the consumer will look to and trust their brand name rather than the ultimate manufacturer. One of the weaknesses of almost all foreign manufacturers and most U.S. manufacturers is that their individual name is virtually unknown among consumer and little known among architects and designers.

Manufacturers who export to the U.S. have to realize that with an abundance of worldwide capacity and supply, operating solely as a manufacturer who sells to wholesalers or to home centers is no longer sufficient. European manufacturers have to generate demand for their specific brands among designers and architects, and by offering superior products of innovative style. They must devote substantial budgets to advertising and promotion. Most of all they must differentiate between their products and those of the mass of manufacturers. If they will be able to do this, exports of tile from Europe to the U.S. will still continue to grow and they will continue to prosper.