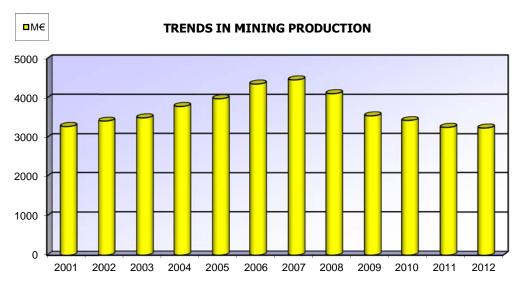
MINING IN SPAIN 2012- SUMMARY

DOMESTIC MINING

1.1.- Mining production

Ex-works Spanish mining production in 2012 reached 3244 M€, almost the same as in previous year.



While the overall value has been almost the same from 2011, the behavior of sectors has been different. The value of coal production has remained stable and hydrocarbons have been responsible for the increase in value of the energy resources.

Metallic ores have significantly increased its value, thanks mainly to the increasing productions of the mines in the Pyritic Belt. A fully operational gold mine in Asturias and the recovery, since August, of the activity, in the Aguablanca nickel mine, have also contributed to this improvement.

In contrast, the productions of the rest of rocks and minerals have continued its decline, one year more.Industrial minerals and rocks have clearly dropped productions in everything related to the construction, civil engineering and manufacture of cement sectors. The positive evolution of those minerals not related without construction such as - potash, sodium sulphate, magnesite, etc. - has not been enough to offset the fall in the rest of commodities.

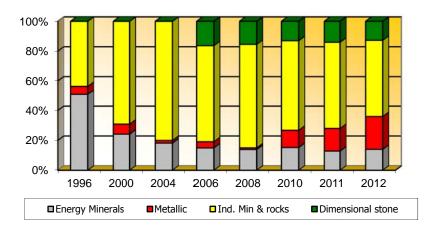
Dimensional stones have suffered a new decline, basically due to the reduction in granite production. The fall of domestic consumption has been very drastic and production has mainly been supported by exports.

TABLE I TRENDS IN THE MINING PRODUCTION VALUE (thousand €)

	2008	2009	2010	2011	2012
Energy mineral resources	574 603	543 623	522 362	418 250	453 174
Metallic ores	45 485	179 416	396 538	492 632	716 872
Industrial minerals & rocks	2 859 028	2 339 663	2 064 376	1 882 222	1 661 312
Dimensional stone	635 691	458 464	443 868	457 198	412 046
TOTAL	4 114 807	3 549 581	3 427 144	3 250 302	3 244 404

Source: Spanish Mining Statistics (value of raw production)

MINERAL PRODUCTION IN VALUE (%)



The graph above shows that, during the last 12 years, the industrial minerals and rocks sector¹ has been the main mining sector in terms of value, due to the great number of substances included and the numerous operations. Energy minerals have slowly dropped in terms of production value, from 25% in 2000 to 13% in 2012. Metallic mining is regaining relative weight overall.

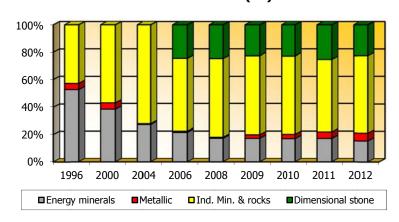
Table II includes the five-years trend in mining staffing. The coal sector has experienced, one year more, the most relevant employment drop. 2012 have also seen a notable drop in the dimensional stone sector staffing.

TABLE II TREND IN MINING STAFFING

	2008	2009	2010	2011	2012
Energy mineral resources	5 969	5 427	4 948	4 180	3 663
Metallic ores	241	837	904	1 159	1 373
Industrial minerals & rocks	19 926	18 286	16 811	12 973	13 536
Dimensional stone	8 547	7 163	6 708	6 167	5 432
TOTAL	34 683	31 713	29 371	26 745	24 004

Fuente: Spanish Mining Statistics

STAFFING TRENDS (%)



In 2012, subcontracting has increased only in the metallic sector.

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¹ Up until 2005 dimensional stone is included in the industrial minerals & rocks sector

TABLE II bis PERMANENT/SUBCONTRACTED STAFF

		2011		-	2012	
	Subcontracted	Permanent	Total	Subcontracted	Permanent	Total
Energy mineral resources	1 862	4 180	<i>6 042</i>	1 557	3 663	<i>5 220</i>
Metallic ores	1 361	1 159	<i>2 520</i>	1 757	1 373	<i>3 130</i>
Industrial minerals & rocks	4 438	15 539	19 677	4 622	13 536	18 158
Dimensional stone	856	6 167	7 023	821	5 432	<i>6 253</i>
TOTAL	8 517	26 745	<i>35 262</i>	8 757	24 004	<i>32 761</i>

Fuente: Spanish Mining Statistics

Table II bis shows that in the metallic ores subsector subcontracting represents the higher % of employment (56%) followed by the energy mineral resources sector. In the dimensional stone sector, permanent staff is higher than subcontracted staffing.

Table III includes the trend in number of operations in production 2008-2012.

TABLE III TRENDS IN NUMBER OF OPERATIONS

	-	2008	2009	2010	2011	2012
Energy mineral resources		53	46	46	44	46
Metallic ores		3	6	6	7	7
Industrial minerals & rocks		3 213	3 058	2 886	2 715	2 566
Dimensional stone		845	742	674	635	589
	TOTAL	4 114	3 852	3 612	3 411	3 208

Fuente: Spanish Mining Statistics

Table IV shows a detailed mining production trends 2008-2012 including most of the minerals resources produced in Spain.

TABLE IV <u>DETAILED MINING PRODUCTION TRENDS</u>

	2008	2009	2010	2011	2012
Anthracite (t)	3 148 603	4 060 539	3 212 603	2 489 797	2 259 236
Coal (t)	4 156 918	2 894 325	2 776 918	1 774 992	1 651 496
Sub. bituminous coal (t)	2 896 654	2 493 647	2 443 677	2 358 930	2 275 409
Brown lignite	127 286	106 817	121 528	99 925	143 526
Oil (t)	21 732	18 944	58 425	57 687	64 780
Natural gas 10 ³ Nm ³	3 148 603	4 060 539	3 212 603	2 489 797	2 259 236
Zinc (t concentrate)				69 266	61 144
Copper (t contained)		141 810	36 245	75 064	99 884
Tin (kg)	3 889	214	124	8 699	68 830
Nickel (t concentrate)	115 665	119 035	94 282		35 361
Gold (kg)				529	1 355
Silver (kg)*			413	9 182	8 533
Lead (t mineral)		80	379	7 813	3 763
Tungsten (t WO ₃ concentrate)	194	284	303	425	496
Speciality clays (t)	919 541	742 137	742 704	703 022	742 514
Barite (t)	11 110	5 212	2 050		
Kaolin (t)	355 739	261 298	298 993	661 587	402 251
Celestine (t)	138 590	57 466	83 035	97 102	96 688
Diatomite (t)	46 192	29 194	64 346	83 624	60 777
Feldspar (t)	690 256	597 496	691 894	662 418	530 238

Fluorspar (t)	148 736	122 408	132 341	117 333	113 570
Sodium sulphate (t)	1 103 572	1 200 514	1 280 767	1 156 045	1 224 420
Lithium (t lepidolite)	9 342	4 270	7 825		
Magnesite (raw)	442 339	390 311	462 959	577 725	649 977
Mica (t)	4 254	3 655	4 034	3 775	3 518
Iron pigments (t)	112 218	45 520	29 808	92 122	70 618
Pumice (t)	567 415	436 542	432 364	303 4 62	194 655
Potash (t K ₂ O)	472 952	481 455	418 778	436 026	421 652
Salt (t)	4 303 088	4 201 723	4 451 302	4 503 772	4 108 662
Industrial silica (t) e	4 602 348	3 310 794	3 700 611	3 727 954	3 546 559
Talc (t)	59 299	47 218	51 897	11 957	8 857
Peat (t)	81 225	58 678	64 962	86 571	61 379
Common clay (t)	32 000 000 e	13 294 900	12 185 240	9 267 360	8 288 505
Aggregate (kt) (1)	332 200	235 000	271 300	204 183	137 891
Calcium carbonate (t) e	3 000 000	3 000 000	3 000 000	3 000 000	3 000 000
Industrial dolomite (t)	1 790 757	1 190 376	1 209 000	907 000	739 000
Dunite (t)	1 434 671	1 660 555	1 469 999	1 237 209	870 542
Granite (t)	1 571 090	1 271 698	1 093 101	901 013	681 803
Marble (t)	3 538 628	2 359 765	2 448 914	2 310 933	2 209 975
Roofing slate (t)	877 341	611 073	581 529	642 102	666 413
Other dimensional stone (t)	489 550	344 952	304 096	254 899	246 702
Cement raw materials (t) (1)	46 421 076	38 632 596	36 855 497	28 670 093	27 230 208
Gypsum (t)	11 768 907	8 181 315	6 990 249	7 825 747	6 359 923

Sources: IGME, based in Spanish Mining Statistic data

Follows a detailed revision of the mining subsectors.

1.1.1.- Energy minerals

Table V includes mineral production of each substance. In the last three years the production trend has been:

TABLE V ENERGY MINERALS PRODUCTION TREND (thousand €)

	2010	2011	2012	Variation 12/11 (%)
Anthracite (t)	221 132	167 952	165 835	-1,26
Coal (t)	158 121	110 407	109 633	-0,7
Sub. bituminous coal (t)	80 428	<u>83 352</u>	<u>85 003</u>	<u>1,9</u>
Total coal	<i>459 681</i>	<i>361 711</i>	360 471	-0,3
Oil	46 741	41 198	67 839	64,7
Natural gas	15 939	15 342	24 863	62,1
TOTAL	522 361	418 251	453 174	8,3

Fuente: Spanish Mining Statistic (mining sales)

Total coal production experienced a sharp drop in staff (-14,6%) and in tonnage (-6,6%), but not so in value (-0,3%).

Oil and natural gas production continues very low, even though they have greatly increased over previous year, both in weight and value.

¹⁾ Spanish Cement Association (OFICEMEN); * Includes Ag content in lead mineral; e: IGME estimates

1.1.2.-Metallic minerals

As commented above, metallic minerals are recovering its overall weight in the national mining industry. The number of active operations is low, with only 7 mines in production, but the value of the exploited ores is high due to the high market values of metals.

The two operating Pyrite Belt mines (Aguas Teñidas and Las Cruces) have increased their production rate, yielding higher copper amounts, and in the case of the complex sulphides mine, also zinc, lead and silver concentrates.

TABLE VI METALLIC MINERALS PRODUCTION VALUE (thousand €)

	2010	2011	2012	Variation 12/11 (%)
TOTAL	396 538	492 632	716 818	45,5

Fuente: Spanish Mining Statistic

The Aguablanca (Ni-Cu) mine, in Badajoz, recovered its normal activity in August, once the technical problems in the access ramp have been solved.

Tungsten and tin-tungsten mining has also increased production, although up until now production is not really high (San Finx and Los Santos mines).

Gold mining in the Valle-Boinás-Carles region, in Asturias, continues its gold production as well as some copper and silver.

MATSA is advancing the project of exploitation of the Magdalena mine, very close to Aguas Teñidas mine, while continuing research in the Sotiel project (Cueva de la Mora Group).

Many other metallic mining projects are now being developed, thus the future of metallic mining in Spain seems promising.

1.1.3.-Industrial minerals & rocks

Spain is a very relevant player in the global industrial minerals & rocks market. Is currently the sole European sodium sulphate producer, hosts 70% of the known world resources of sepiolite, is the $1^{\rm st}$ European fluorspar producer, the $5^{\rm th}$ gypsum world producer and $1^{\rm st}$ in Europe, $2^{\rm nd}$ world producer of celestine and only European producer and also has the biggest feldspar sand reserves in the whole Europe.

In general terms, those minerals not directly related to the construction sector maintain their production levels, but those related to construction show a clear reduction trend in production.

Table VII shows the production of the most relevant minerals & rocks.

TABLE VII INDUSTRIAL MINERALS & ROCKS PRODUCTION VALUE TRENDS (thousands €)

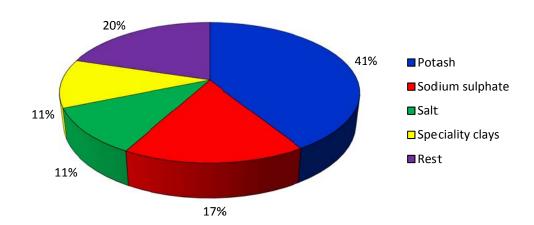
	2011	2012	Variation 12/11 (%)
Potash (e)	300 700	378 115	25,7
Speciality clays	100 717	101 785	1,1
Salt	104 720	99 217	-5,3
Sodium sulphate	115 700	153 023	32,3
Gypsum	51 258	47 039	-8,0

Kaolin	24 522	24 180	-1.4
Feldspar	18 977	16 739	-11,8
Magnesite (e)	15 900	17 900	12,6
Industrial silica	66 100	57 049	-13,7
Fluorspar	11 960	10 198	-14,7
Talc (e)	2 000	1 350	-32,5
Celestite (e)	4 900	4 900	-
Aggregates (e)	800 000	<i>551 566</i>	-31,1
Industrial dolomites (e)	6 151	5 908	-3,9
Cement raw materials (e)	168 000	144 320	-14,0
TOTAL	1 791 605	1 613 289	-10,0

Fuente: IGME, based in Spanish Mining Statistic, Associations and enterprises data (e): IGME estimates

As shown in Table VII, the production value of industrial minerals & rocks in Spain has dropped 10%. The rest of minerals not related to construction have greatly improved in most cases. The graph clearly shows that four minerals represent 80% of the production value.

INDUSTRIAL MINERALS

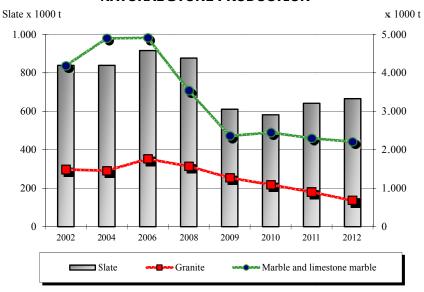


The construction crisis, which resulted in a drastic reduction of the construction of buildings, civil works and all other subsectors, has clearly affected to the production of aggregates and the manufacture of fired clay products (bricks and roof tiles), all other ceramics and cement. Cement, whose general production trend runs parallel to the GDP evolution, has dropped so sharply that the last production data are similar to those in the 60s, lowest in the last 40 years.

1.1.4. Dimensional stone

Marketable dimensional stone production, reached 416 M€, in 2012, 9,6% lower than 2011. The main production fall corresponds to granite, -34% in tonnage and -24% in value. In terms of tonnage, both roofing slate and marble have slightly increased production, but not value. Internal demand has maintained its downward trend, and its only thanks to exports that exploitations are maintained open.

NATURAL STONE PRODUCTION



During 2012, the external trade balance of the natural stone sector reached 760 M€ (+9,3%), thus this industry is vital for the Spanish economy. The graph below shows the weight of exports versus imports of natural stone.

900 800 700 600 500 400 300 200 100 0 Total Marble Slate Others Granite **■** Exports ■ Imports

EXTERNAL TRADE M€

2.- INTERNATIONAL TRADE

Table VIII summarizes the value in \in x1000 of imports and exports in 2011 and 2012 of minerals and rocks on one side and of the rest of mineral raw materials (1st transformation products, metals and semi elaborated products), and the global balance.

TABLE VIII – INTERNATIONAL TRADE OF INDUSTRIAL MINERALS & ROCKS AND OTHER MINERAL RAW MATERIALS 2010-2011

IMPORTS (10 ³ €)								
	2011			2012				
	Mineral & rocks	Other MRM.	Total	Mineral & rocks	Other MRM.	Total		
Energy resources	40.586.680,9	16.068.678,6	56.655.359,5	48.479.359,4	13.709.248,4	62.188.607,8		

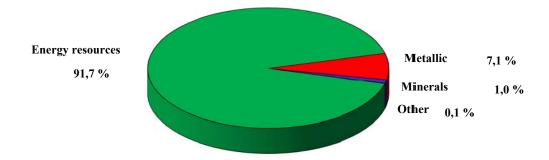
Metallic minerals	3.997.155,0	8.899.061,9	12.896.216,9	2 742 202 0	7 075 220 2	11.717.532,3		
	3.997.133,0	8.899.061,9	12.896.216,9	3.742.302,0	7.975.230,3	-		
Industrial minerals	622.175,5	1.301.880,1	1.924.055,6	555.875,1	1.390.342,9	1.946.218,0		
Dimensional stone.	76.107,9	75.142,3	151.250,2	65.097,7	60.683,3	125.781,0		
Other quarry products	19.889,9	86.646,6	106.536,5	16.358,4	63.295,5	79.653,9		
Mineral natural waters	8.504,2	_	8.504,2	9.964,4	_	9.964,4		
TOTAL	45.310.513,4	26.431.409,5	71.741.922,9	52.868.957,0	23.198.800,4	76.067.757,4		
EXPORTS (10 ³ €)								
		2011		2012				
Energy resources	345.749,5	13.151.013,6	13.496.763,1	797.636,2	15.362.487,7	16.160.123,9		
Metallic minerals	1.083.747,9	9.510.663,3	10.594.411,2	1.070.329,4	10.171.679,5	11.242.008,9		
Industrial minerals	783.236,1	600.214,9	1.383.451,0	741.484,9	703.352,4	1.444.837,3		
Dimensional stone.	269.255,5	577.303,0	846.558,5	288.297,6	597.683,9	885.981,5		
Other quarry products	74.433,8	356.420,2	430.854,0	83.466,1	551.989,1	635.455,2		
Other quarry products	·							
Mineral natural waters	10.385,3	_	10.385,3	8.797,2	_	8.797,2		

BALANCE (I – E) | 42.743.705,3 | 2.235.794,5 | 44.979.499,8 | 49.878.945,6 | -4.188.392,2 | 45.690.553,4

Source: IGME based on Foreign Trade Statistics of Spain (AEAT)

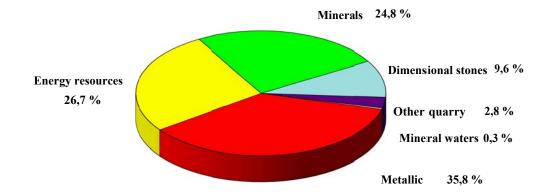
The value of the raw materials international trade rose moderately in 2012, a increase mainly attributable to the energy sector; the value of imports grew 6% in 2012 and exports rose 13.5%, and this was due to the fact that the contraction of domestic demand led to the intensification of efforts to export the surplus.

The value of imports of minerals and rocks which added up 69,5% of the total gained 16,7% in 2012, with cuts not only in products related to construction (dimensional stone,–14,5%; other quarry products,–17,7%), but also in metallic (-6,4%) and industrial minerals (-10,6%) and rises in the purchases of energy resources (19,4%) and in mineral waters (17,2%). The graph below shows the percentage distribution of imports of minerals and rocks. Natural stone represented only 0,12%, other quarry products represented 0,03% and mineral water 0,02%.



Imports of minerals and rocks 2012

The value of mineral and rocks exports (9,8% of the total) rose 16,5% in 2012, and experienced increases in: energy resources, 130,7%; dimensional stone, 7,1%; other quarry products, 12,1%, and drops in natural waters, 15,3%, industrial minerals, 5,3% and metallic ores, 1,2%;. In percentage, sales where leaded by energy resources surpassing metallic ores, followed by industrial minerals, dimensional stone, other quarry products and mineral waters.



Minerals and rocks exports 2012

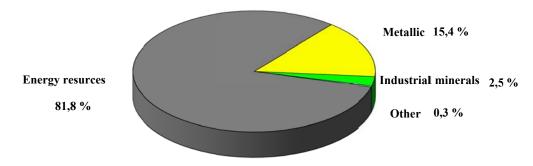
The increase of imports with respect to exports resulted in a notable increase of the negative balance, which reached 49 878,945 M€, 16,7% higher than in 2011. Such deficit was generated by the energy resources, metallic and mineral waters, while industrial minerals, dimensional stone and other quarry products showed a partial positive balance (Table IX).

If we analyze mineral raw materials as a whole, we can see that imports of intermediate and semi elaborated products multiplied by 1,44 in 2012 (1,58 in 2011). The exports multiplied by 10,2 % (10,4% in 2011).

Such relative relevance of exports of semi elaborated meant that the global deficit in 2011 ((45 690,553 M \in , 1,6% higher than in 2011), was 8,4% higher in 2012 (5,2% en 2011) to that of minerals and rocks. Dimensional stone and other quarry products (Table IX) showed a surplus.

Import of mineral raw materials was similar to that of minerals, except that the participation of energy resources was softened by the higher relevance of metallic ores and, to a lesser extent by the industrial minerals. Mineral waters were only 0,01% of the total, dimensional stone 0,16% and other quarry products 0,11%. Altogether 2011 saw an increase of 26,3%, which meant that in view of the already commented increase in imports of minerals and rocks, the rest of mineral raw materials rose only 24,4%. Energy minerals rose 27,5%, metallic minerals 22,7%, industrial minerals 27,8% and mineral waters 12,2%, but dimensional stone dropped 18,9% and other quarry products 32,3%.

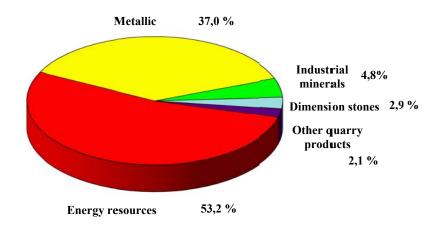
With respect to the year 2011, increased by 6% overall, which meant that, taking into account the previously mentioned increase in the value of foreign purchases of minerals and rocks (16.7%), of remaining m.p.m drops a 12.2%. It grew up in energy commodity (9.8%), industrial minerals (1.1%) and natural mineral water (17.2%), and decreased in metallic minerals (- 9.1%), dimensional stone (- 16.8%) and other quarry products (- 25.2%).



Imports of mineral raw materials 2012

Exports of mineral raw materials shows a different structure to that of minerals, leaded by energy resources, followed by metallic and industrial minerals, mineral waters only represented 0,03%. Altogether rose 13,5% in 2012 (16,5% in minerals and 13,2% in other raw materials), with increases in all chapters: energy 19,7%, m.p.m metallic 6,1%, m.p.m. industrial 12,1%, dimensional stone 4,6% and other quarry products 47,5%, except in mineral waters -15,3%.

The export of mineral raw materials has a different structure to the minerals, being led by energy resources, followed by the metal and industrial; mineral water accounted for only 0.03% (graph 4). Altogether, increased by 13.5% from 2011 (16.5% in minerals and 13.2% in other raw materials), with increases in all chapters: energy (19.7%), metal m.p.m (6.1%), non-metallic m.p.m (4.4%), ornamental rocks (4.6%) and other quarry (47.5%), except in mineral water (-15.3%).



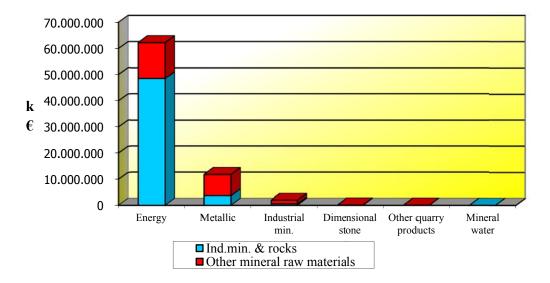
Exports of mineral raw materials 2012

TABLE IX <u>INTERNATIONAL TRADE BALANCE 2012</u> (x10³ €)

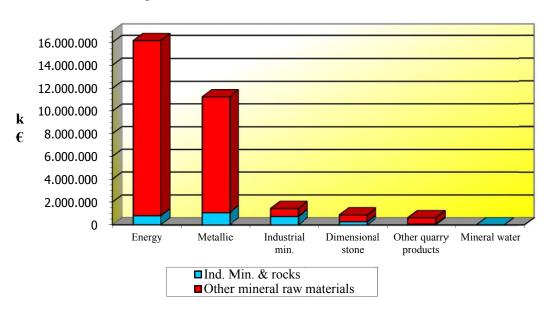
	Minerals & rocks	Other mineral raw materials	Total	Δ 12/11
Energy resources	- 47 681 723,2	+ 1 653 239,3	- 46 028 483,9	6,6%
Metallic minerals	– 2 671 972,6	+ 2 196 449,2	- 475 523,4	-79,3%
Industrial minerals	+ 185 609,8	– 686 990,5	- 501 380,7	-7,2%
Dimensional stone.	+ 223 199,9	+ 537 000,6	+ 760 200,5	9,3%
Other quarry products	+ 67 107,7	+ 488 693,6	+ 555 801,3	71,4%
Mineral natural waters	- 1 167,2		- 1 167,2	*
TOTAL	- 49 878 945,6	+ 4 188 392,2	- 45 690 553,4	1,6%

Source: IGME

The following figures show graphically the value of imports of the six groups of substances considered and the relative importance that minerals and rocks have over the rest of groups.



Imports of minerals and other raw materials 2012



Exports of minerals and other raw materials 2012