

Analysis of Lebanon's Steel Market

(2009-2013)

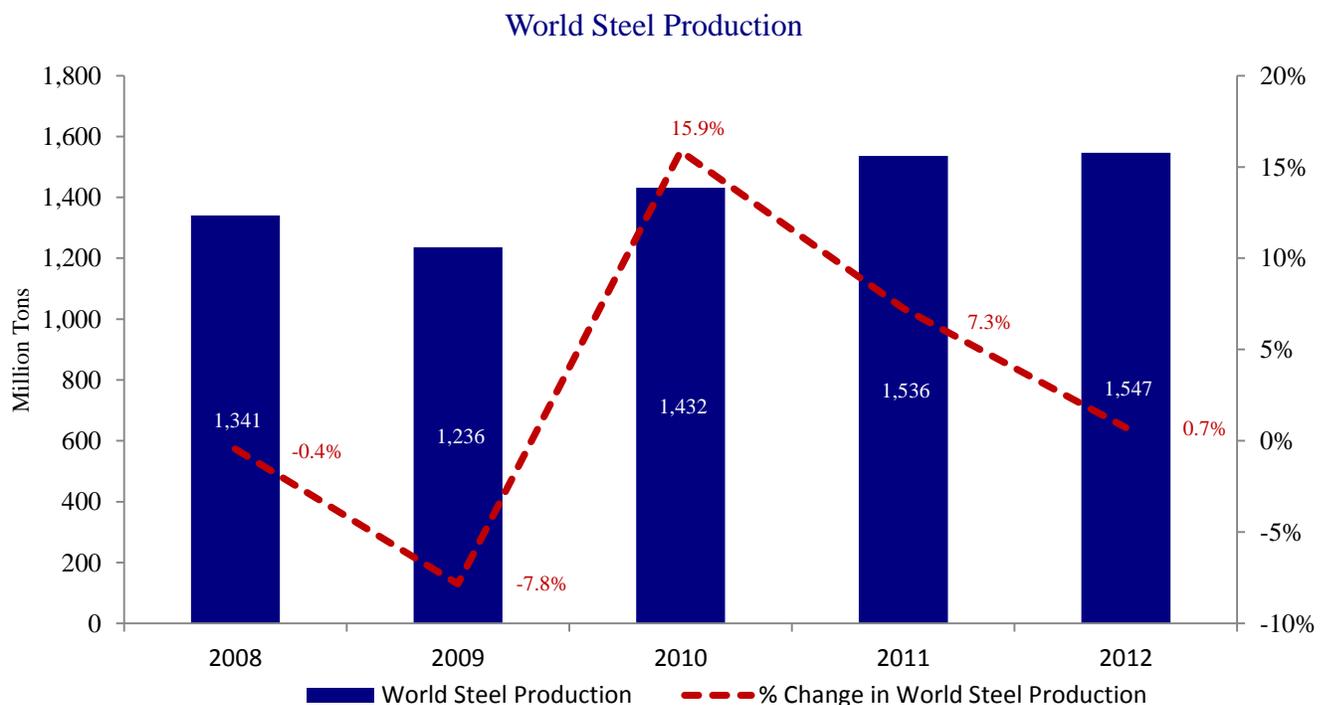
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World Steel Market:

The world steel industry is a major driver of the global economy. Steel is the material which makes up much of our modern world, from towers to washing machines. Hence, governments around the world consider a strong steel sector as an indicator of economic prosperity. In fact, according the World Steel Association, the steel industry employs about two million people worldwide, in addition to two million contractors and four million employees in supporting industries. Furthermore, if transport, energy, and construction sectors were to be included, the steel industry is an employer for about 50 million people.

The period 2000-2007, witnessed a steel boom with crude steel production growing at a compounded annual growth rate of 8.7%. However, the global economic crisis weighed heavily on the steel industry, hence leading to a plunge in world steel production in post-crisis period, reaching 1,236 million tons produced in 2009, the lowest since 2005. This comes as a direct result of falling demand for steel as the construction sector was sharply affected by the global crisis. However, with the expanding sector capacity despite the global financial crisis, the steel industry revived in 2010, with crude steel production growing at an annual rate of 15.9%. The sector continued to grow, although at a modest rate, in 2011 and 2012. By the end of 2012, the world produced 1,547 million tons of crude steel, hence exceeding pre-crisis levels.



Source: World Steel Association

China is currently the biggest steel producing country, with its crude steel production reaching 716.5 million tons. It is followed by Japan which ranks second in terms of volume of steel production, having produced 107.2 million tons of crude steel. The United States ranks third with 88.7 million tons of crude steel production, followed by India (77.6 million tons), Russia (70.4 million tons), and South Korea (69.1 million tons).

In the MENA region, Iran comes first regionally (15th globally) in terms of steel production with 14.5 million tons of crude steel produced in 2012. It is followed by Egypt (24th globally) which produced 6.6 million tons of crude steel during the same year. Third comes Saudi Arabia (26th globally), with production reaching 5.2 million tons of crude steel in 2012.

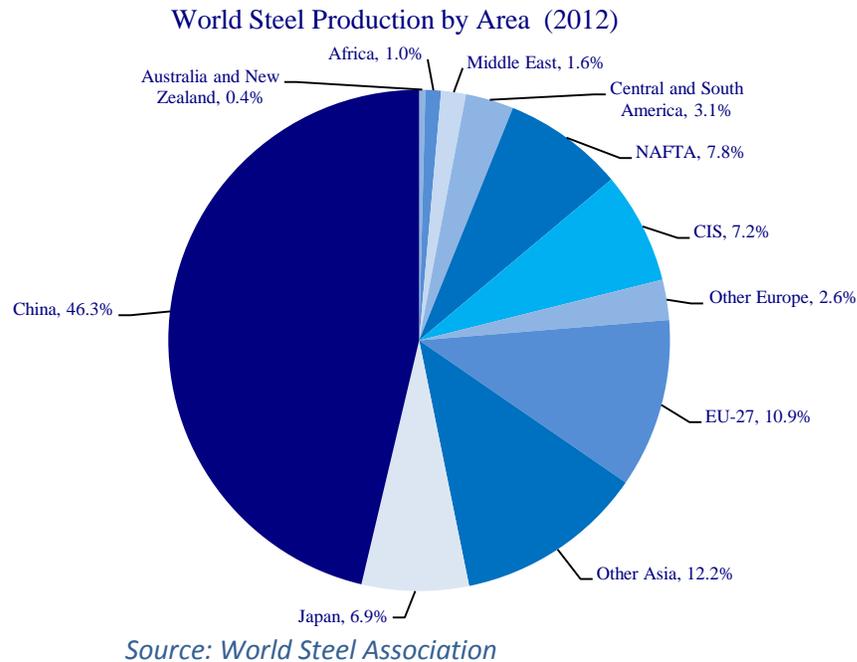
Country	2012	
	Rank	Tonnage (million)
China	1	716.5
Japan	2	107.2
United States	3	88.7
India	4	77.6
Russia	5	70.4
South Korea	6	69.1
Germany	7	42.7
Turkey	8	35.9
Brazil	9	34.5
Ukraine	10	33.0
Italy	11	27.3
Taiwan	12	20.7
Mexico	13	18.1
France	14	15.6
Iran	15	14.5

Country	2012	
	Rank	Tonnage (million)
Spain	16	13.6
Canada	17	13.5
United Kingdom	18	9.6
Poland	19	8.4
Austria	20	7.4
Belgium	21	7.3
South Africa	22	6.9
Netherlands	23	6.9
Egypt	24	6.6
Malaysia	25	6.0
Saudi Arabia	26	5.2
Czech Republic	27	5.1
Argentina	28	5.0
Vietnam	29	4.9
Australia	30	4.9

Source: World Steel Association

In terms of steel production by area, China produced 46.3% of total crude steel production in 2012. Hence after years of quick expansion, Chinese firms produce half of the global steel today. China is followed by Japan and other Asian economies which together constituted a share of 19.1% of total crude steel production in 2012. The rise of the steel industry in Asian economies was aided by cheap available labor, hence reducing the competitiveness of European nations with sky-high labor costs. In fact, EU-27 and other European countries constituted 13.5% of total crude steel production in 2012, after having produced a quarter of total crude steel a decade ago. Furthermore, NAFTA members (United States, Canada, and Mexico) are today responsible for 7.8% of the total crude steel produced, with their share almost falling by half over the last decade. This is attributed to these countries' falling competitiveness as

emerging economies fiercely developed their industrial sectors. As for CIS (Common Independent States) countries, they produced 7.2% of total crude steel in 2012, and their share has been falling over the past years.



China also ranks as the biggest steel consuming country, with its apparent steel consumption reaching 646.2 million tons. It is followed by the United States which have consumed 96.7 million tons of steel in 2012. India ranks third with its consumption of apparent steel reaching 71.6 million tons, followed by Japan (64.0 million tons), South Korea (54.1 million tons), and Russia (41.8 million tons).

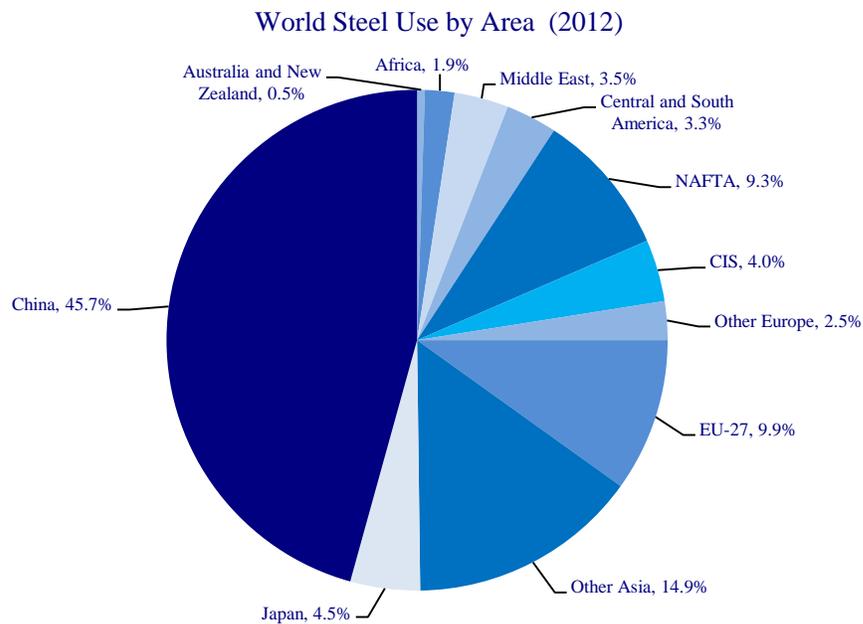
In the MENA region, Iran comes first regionally (12th globally) in terms of steel consumption with 18.2 million tons consumed in 2012. It is followed by Egypt (19th globally) which consumed 8.0 million tons of steel during the same year. It is noteworthy that the Middle East region as a whole consumes 48.9 million tons of steel.

Country	2012	
	Rank	Tonnage (million)
China	1	646.2
United States	2	96.7
India	3	71.6
Japan	4	64.0
South Korea	5	54.1
Russia	6	41.8
Germany	7	37.7
Turkey	8	28.5
Brazil	9	25.2
Italy	10	21.7

Country	2012	
	Rank	Tonnage (million)
Mexico	11	20.1
Iran	12	18.2
Taiwan	13	17.9
Canada	14	14.4
France	15	12.6
Spain	16	10.7
Poland	17	10.4
United Kingdom	18	9.0
Egypt	19	8.0
Australia	20	7.2

Source: World Steel Association

In terms of steel use by area, China ranks first with its share reaching 45.7% of total steel use in 2012. It is followed by Japan and other Asian economies which used 19.4% of total steel in 2012. Third comes European countries which used 12.4% of total steel, followed by NAFTA member (9.3%), CIS countries (4%), and Middle Eastern countries (3.5%).



Source: World Steel Association

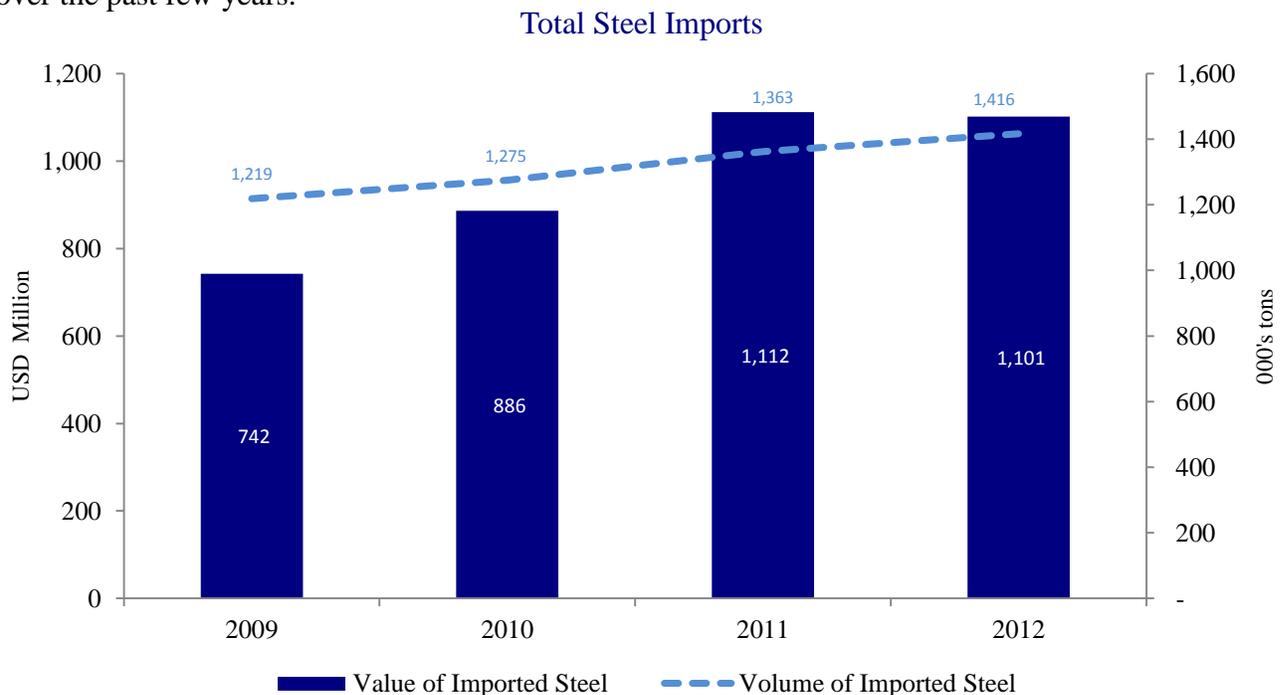
Steel Imports and Exports:

Evolution of Steel Imports:

The Period 2009-2012:

The demand for steel in Lebanon is mainly satisfied through steel imports, given the country's limited capacity for domestic steel production. Steel is generally imported in the form of finished products sold to the local market, with little left to export. Hence, Lebanon has always been a net importer of steel.

During the year 2010, the value of imported steel witnessed 19.4% increase to reach USD 886 million, up from USD 742 million in the previous year. This increase coincided with a 4.6% rise in the volume of imported steel which recorded 1,275,000 tons in 2010. Given narrow and immature local production, demand for steel import continued to rise in the following years. In the year 2011, the value of imported steel rose by 25.5% to reach USD 1,112 million, while the volume increased by 6.9% to reach 1,363,000 tons. However, the value of imported steel slightly declined in 2012, falling by 1% to reach USD 1,101 million. Yet, the volume of imported steel maintained the upward trend and witnessed 3.8% increase, recording 1,416,000 tons. Hence, the steel sector showed some resiliency to the regional turmoil witnessed in neighboring countries over the past few years.



Source: Lebanese Customs

The Period January-July 2013:

The resiliency that characterized the steel sector during the period 2009-2012, did not last through 2013. In fact, during the first seven months of 2013, the volume of imported steel totaled 759,100 tons, witnessing a 0.2% drop from 760,900 tons in the same period last year. Similarly, the value of imported steel fell by 6.2% y-o-y from USD 613.6 million as of end-July 2012 to USD 575.4 million as of end-July 2013. As a result, the cost per ton of imported steel decreased by 6.0%, to reach USD 757.9 as of July 2013, compared to USD 806.5 in the same period last year.

	Jan - July 2012	Jan - July 2013	Y-o-Y Change
Volume of Imported Steel (000's tons)	760.9	759.1	-0.2%
Value of Imported Steel (USD Million)	613.6	575.4	-6.2%
Cost per Ton of Imported Steel (USD)	806.5	757.9	-6.0%

Source: Lebanese Customs

Volume of Steel Imports by Type:

The Period 2009-2012:

Lebanon trades three main types of steel products:

- **Bars and Rods:** They are used in construction to reinforce concrete structures.
- **Flat-rolled Products:** They include rolled coil, coated steel products, tinplate and heavy plate. They are used in machinery, construction, and packaging.
- **Tubes and Pipes:** They are used as binders in building construction and constitute a major component in plumbing systems.

During the year 2010, the volume of imported tubes and pipes increased by a significant 50% to reach 38,200 tons. In the same year, imports of bars and rods and flat-rolled products witnessed modest increases of 3% and 1%, to reach 830,200 tons and 268,000 tons, respectively. This trend continued through 2011 where the volume of tubes and pipes imports rose by 24%, while imports of bars and rods and flat-rolled products saw slight increases of 8% and 1%, respectively. As economic activity in Lebanon slowed in 2012, growth in steel imports also

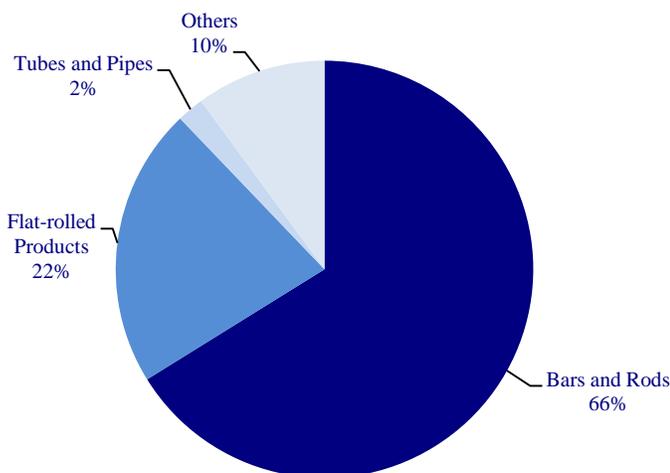
slowed down. The volume of imported tubes and pipes witnessed a sharp 24% drop, reaching 36,200 tons in 2012. On the other hand, the volume of imported bars and rods rose by 5.6% to reach 951,300 tons, and the volume of imported flat-rolled products remained somehow unchanged at 270,600 tons.

000's tons	2009	2010	2011	2012
Bars and Rods	806.3	830.2	900.7	951.3
% Change		3%	8%	5.6%
Flat-rolled Products	264.4	268.0	269.6	270.6
% Change		1%	1%	0%
Tubes and Pipes	25.4	38.2	47.3	36.2
% Change		50%	24%	-24%
Others	122.7	138.3	144.9	157.8
% Change		13%	5%	9%

Source: Lebanese Customs

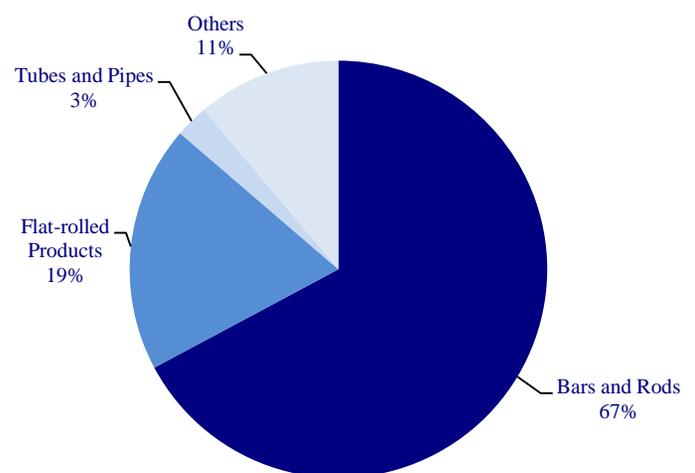
Over the period 2009-2012, the volume of imported bars and rods slightly increased from a share of 66% in 2009 to reach 67% in 2012. This is mainly due to the booming construction sector in the Lebanese economy which uses steel bars and rods as a main input. Likewise, the volume of imported tubes and pipes out of total volume of steel imports, rose slightly from 2% in 2009 to 3% in 2012. On the other hand, the volume of imported flat-rolled products out of total steel imports dropped from 22% in 2009 to reach 19% in 2012.

Volume of Steel Imports by Type (2009)



Source: Lebanese Customs

Volume of Steel Imports by Type (2012)



Source: Lebanese Customs

The Period January-July 2013:

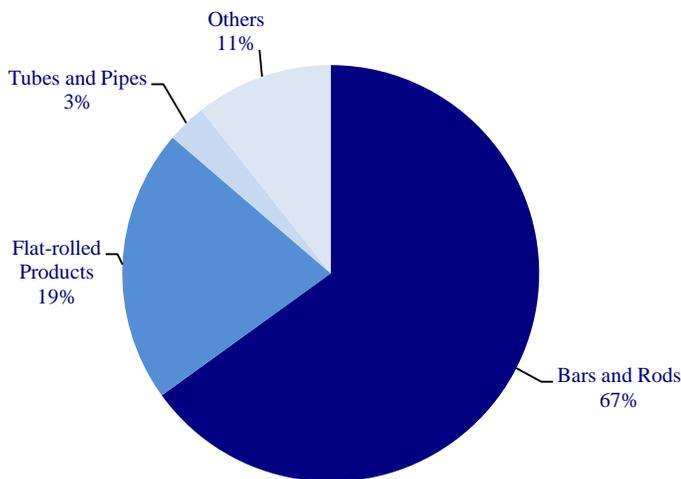
During the first seven months of 2013, the volume of imported flat-rolled products increased by 21.0% year-on-year to 178,300 tons imported in the January-July 2013. On the other hand, the volume of imported tubes and pipes dropped by 26.9% to reach 17,400 tons in January-July 2013. Similarly, imports of bars and rods witnessed 10.2% decline, reaching 454,500 tons in January-July 2013 after having recorded 506,100 tons in the first seven months of 2012. This comes as a direct result of the restrained investment in Lebanon's real estate sector which consequently led to deterioration in the steel sector.

000's tons	Jan - July 2012	Jan - July 2013	Y-o-Y Change
Bars and Rods	506.1	454.5	-10.2%
Flat-rolled Products	147.4	178.3	21.0%
Tubes and Pipes	23.8	17.4	-26.9%
Others	83.5	108.9	30.4%

Source: Lebanese Customs

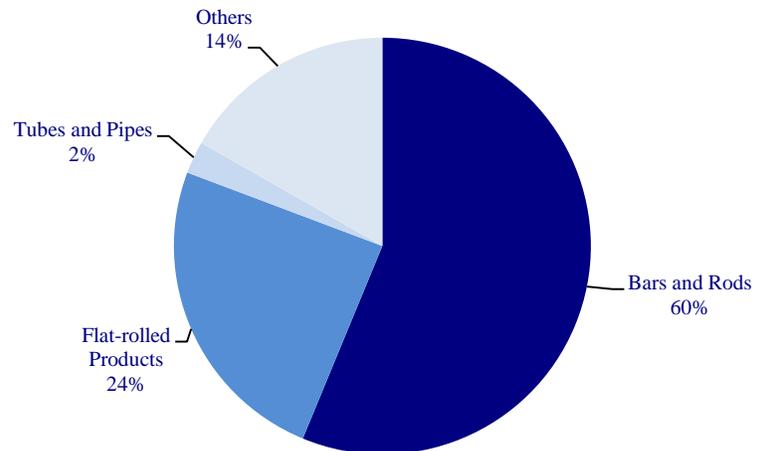
Hence, as a share of total volume of imported steel, the volume of imported bars and rods decreased from a share of 67% in January-July 2012 to reach 60% in January-July 2013. This comes as a consequence of the deterioration in the real estate sector which drives the demand for bars and rods. On the other hand, the volume of imported flat-rolled products out of total steel imports rose during the first seven months of 2013 to reach 24% in the same period of 2013. The volume of imported tubes and pipes out of total volume of steel imports, dropped slightly to a share of 2% in the abovementioned period.

Volume of Steel Imports by Type (January - July 2012)



Source: Lebanese Customs

Volume of Steel Imports by Type (January - July 2013)



Source: Lebanese Customs

Value of Steel Imports by Type:

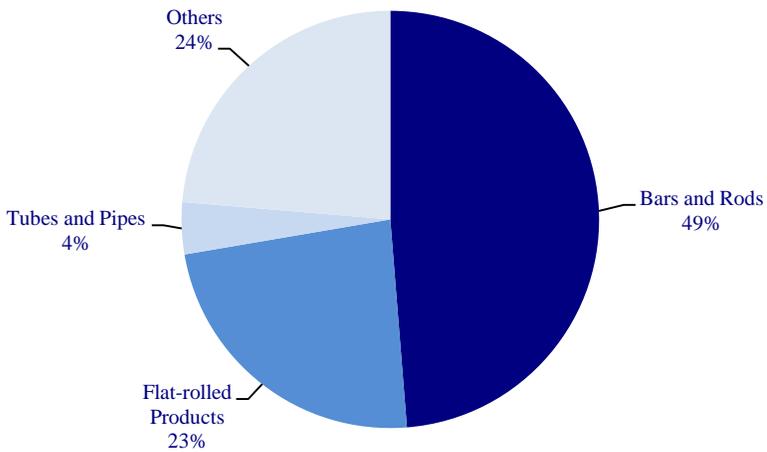
The Period 2009-2012:

The year 2010 witnessed a rise in the value of tubes and pipes imports which increased by 35% to reach USD 40.4 million. Similarly, the value of imported bars and rods rose by 22% to reach USD 442.6 million and the value of imported flat-rolled products increased by 14% reaching USD 199.5 million. The year 2011 witnessed rises in the value of steel imports for the three sub-categories. This is attributed to the rising oil price which increased import prices. In fact, the value of imported bars and rods increased by 41% and the value of tubes and pipes imports rose by 39%. Affected by falling global steel prices due to the interaction of excess supply and reduced global demand, the value of imports of all types of steel products fell during 2012. The value of imported tubes and pipes witnessed the sharpest decline of 20%, reaching USD 44.9 million. Also declining in value, the flat-rolled products imports reached USD 212.2 million, and imported bars and rods totaled USD 612.1 million.

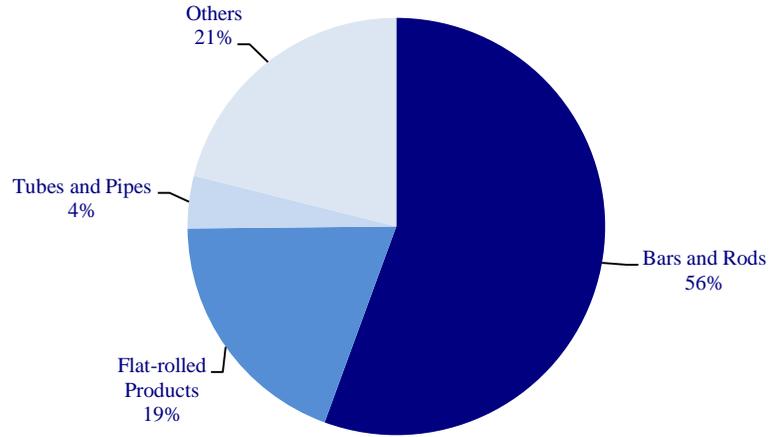
USD Million	2009	2010	2011	2012
Bars and Rods	361.7	442.6	623.4	612.1
% Change		22%	41%	-2%
Flat-rolled Products	175.0	199.5	225.2	212.2
% Change		14%	13%	-6%
Tubes and Pipes	29.8	40.4	56.0	44.9
% Change		35%	39%	-20%
Others	175.7	203.9	207.3	232.2
% Change		16%	2%	12%

Source: Lebanese Customs

Over the period 2009-2012, the value of imported bars and rods constituted a rising share of total value of steel imports, increasing from a share of 49% in 2009 to reach 56% in 2012. On the other hand, the value of imported flat-rolled products out of total steel imports dropped to 19% in the year 2012, after these products constituted 23% of the market for steel imports in 2009. The value of imported tubes and pipes, maintained a stable 4% proportion out of the total value of steel imports.

Value of Steel Imports by Type (2009)


Source: Lebanese Customs

Value of Steel Imports by Type (2012)


Source: Lebanese Customs

The Period January-July 2013:

During the period January-July 2013, the value of imported flat-rolled products rose by 11.8%, from USD 117.0 million imported in the first seven months of 2012 to USD 130.8 million imported in the same period of 2013. This came in line with international steel price trends where flat-rolled products' price outperformed the market. On the other hand, the value of imported tubes and pipes as well as bars and rods fell by 20.3% and 19.2%, reaching USD 23.0 million and USD 273.6 million, respectively. The decline is a result of the combined effects of falling local demand due to diminishing local real estate sector and declining global steel prices due to overcapacity in the world steel market.

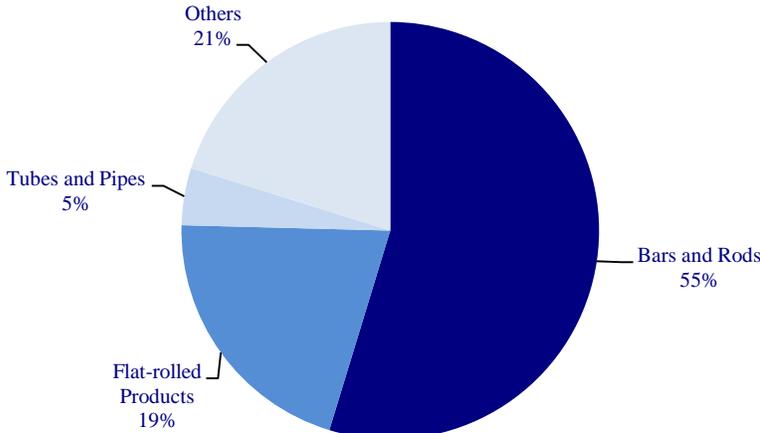
USD Million	Jan - July 2012	Jan - July 2013	Y-o-Y Change
Bars and Rods	338.5	273.6	-19.2%
Flat-rolled Products	117.0	130.8	11.8%
Tubes and Pipes	28.8	23.0	-20.3%
Others	129.4	148.0	14.4%

Source: Lebanese Customs

Hence, as a share of total value of imported steel, the value of imported bars and rods decreased from a share of 55% in the first seven months of 2012 to reach 47% in the same period of 2013. On the other hand, the value of imported flat-rolled products out of total steel imports

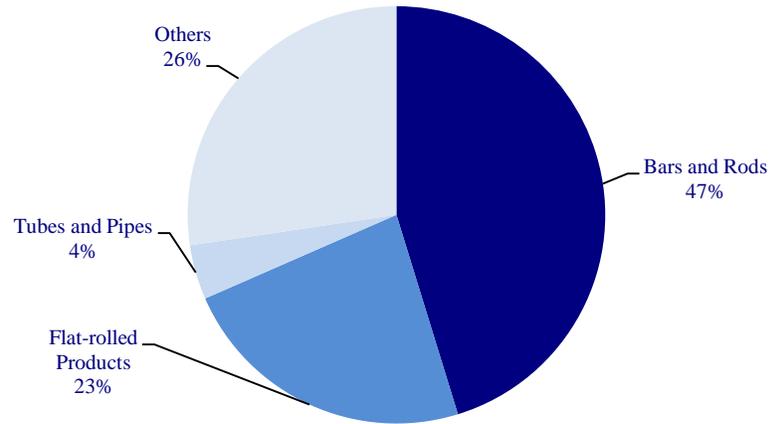
rose from 19% in the January-July 2012 to reach 23% in January-July 2013. The value of imported tubes and pipes out of total value of steel imports, dropped slightly to a share of 4% in the same period of 2013.

Value of Steel Imports by Type (January - July 2012)



Source: Lebanese Customs

Value of Steel Imports by Type (January - July 2013)

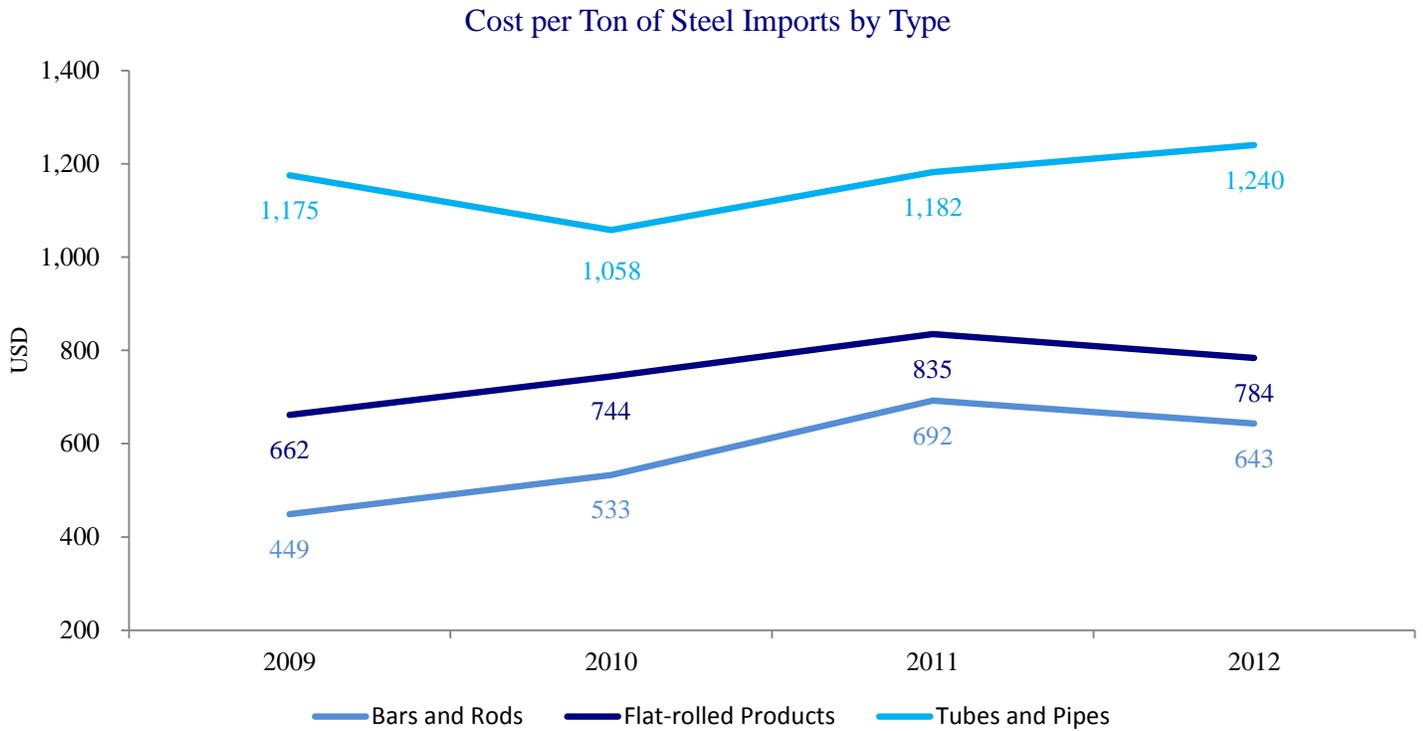


Source: Lebanese Customs

Cost per Ton of Steel Imports by Type:

The cost per ton of imported steel offers an indication of steel price in the Lebanese market. In addition to the upward pressure on global steel price during 2010, the rising unmet local demand for steel as the construction sector expanded, led to rising prices. During 2010, the cost per ton of imported bars and rods increased by 18.7% to reach USD 533. Likewise, the cost per ton of imported flat-rolled products rose by 12.4% to record USD 744 in 2010. Unlike the price trend of finished steel products, the cost per ton of imported tubes and pipes (unfinished products) witnessed a 9.9% decline, reaching USD 1,058 in 2010. As international rising oil prices in 2011 made imports more expensive, the cost per ton of imported steel increased for all three types of steel products. During that year, the cost per ton of imported bars and rods recorded USD 692; the cost per ton of flat-rolled products reached USD 835; and the cost per ton of imported tubes and pipes increased to USD 1,182. Affected by global economic slowdown and contracting real estate development, global steel prices dropped in 2012. This was reflected

on the local steel market where the cost per ton of imported bars and rods dropped by 7.1% to reach USD 643, and the cost per ton of imported flat-rolled products fell by 6.1% reaching USD 784. On the other hand, the cost per ton of imported tubes and pipes witnessed a rising trend (4.9% increase) due to upward pressure on global unfinished products' prices which reflected themselves locally.



Source: Lebanese Customs

Value of Steel Imports by Country:

The Period 2009-2012:

During the year 2010, the value of imported steel from Ukraine saw the highest increase of 103%, to reach USD 237.5 million. Similarly, the value of imported steel from China and Turkey rose by 31% and 14%, to reach USD 84.7 million and USD 132.0 million, respectively. In fact, Ukraine, China, and Turkey's cheap steel price have offset high transportation cost, thus making the aforementioned countries Lebanon's main steel trade partners.

After Egypt was Lebanon's main steel trading partner prior to 2008, steel imports from Egypt saw significant declines in the past few years due to lower Egyptian energy subsidies which rendered its steel price uncompetitive. The decline in Egypt's steel price given the country's instability and reduced local demand led to a remarkable 530% increase in Lebanon's steel imports from Egypt in 2011, rising to USD 91.8 million. Likewise, steel imports from Turkey continued the increasing trend, rising by 93% in 2011, to reach USD 255.4 million. The growth in steel imports from Ukraine and China subsided, where the value of imported steel from Ukraine increased by a slight 5%, while the value of steel imports from China rose by a modest 3% in 2011. This reflects a shift in demand towards cheaper Turkish and Egyptian steel during that year.

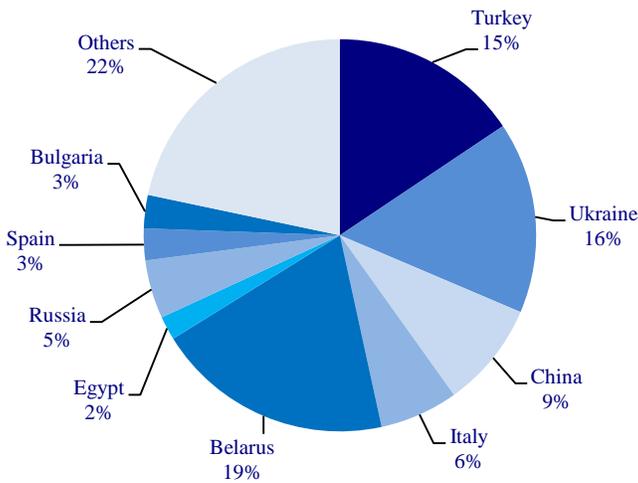
In 2012, steel imports from China saw a remarkable 68% rise to reach a value of USD 147.0 million. Also, the value of imported steel from Italy which is heading to become a major steel trading partner with Lebanon, rose by 37% to reach USD 77.3 million. Similarly, steel imports from Turkey increased in value by 29%, amounting to USD 330.7 million, hence enforcing Turkey as Lebanon's major source of steel imports. However, the value of imported steel from all other countries dropped in 2012. Specifically, the value of imported steel from Egypt saw 58% decline, totaling USD 38.9 million, hence reflecting a normal correction following the significant rise in the previous year.

USD Million	2009	2010	2011	2012
Turkey	115.8	132.0	255.4	330.7
% Change		14%	93%	29%
Ukraine	117.3	237.5	249.2	211.7
% Change		103%	5%	-15%
China	64.8	84.7	87.4	147.0
% Change		31%	3%	68%
Italy	48.0	45.2	56.3	77.3
% Change		-6%	25%	37%
Belarus	145.3	131.9	98.8	42.0
% Change		-9%	-25%	-58%
Egypt	14.6	14.6	91.8	38.9
% Change		-1%	530%	-58%
Russia	35.7	28.3	53.5	29.7
% Change		-21%	89%	-45%
Spain	19.5	16.2	19.7	18.6
% Change		-17%	22%	-6%
Bulgaria	20.4	16.0	20.4	3.4
% Change		-21%	27%	-83%
Others	161.0	179.8	179.2	202.1
% Change		12%	0%	13%

Source: Lebanese Customs

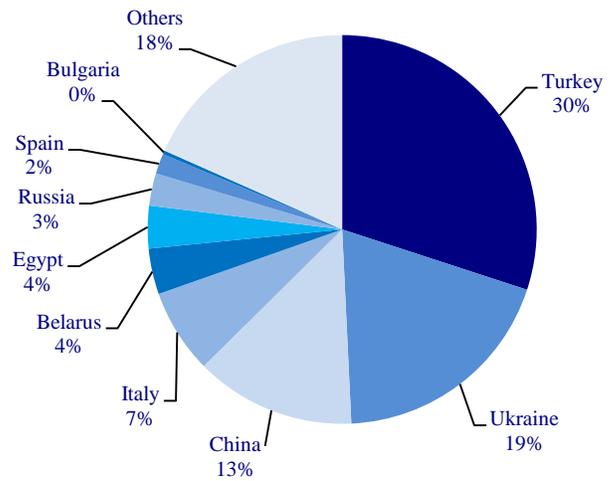
Over the period 2009-2012, the value of imported steel from Turkey as a share of total steel imports increased from 15% in 2009 to 30% in 2012, hence making Turkey the major exporter of steel to Lebanon. Concurrently, the share of Ukraine out of total steel imports rose by 3 percentage points to reach 19% in 2012. Similarly, China's share of the total value of steel imports rose from 9% in 2009 to 13% in 2012. Furthermore, the share of Italy and Egypt out of total steel imports to Lebanon increased to reach 7% and 4%, respectively.

Value of Steel Imports by Country (2009)



Source: Lebanese Customs

Value of Steel Imports by Country (2012)



Source: Lebanese Customs

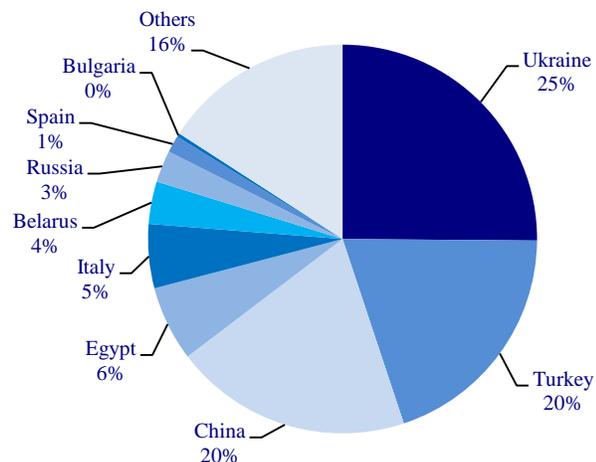
The Period January-July 2013:

In terms of value of imported steel by country, steel imported from Ukraine recorded the highest value, totaling USD 144.6 million, and constituting a 25% share of total imported steel during the first seven months of 2013. The value of steel imported from Turkey came second with a total value of USD 113.8 million, equivalent to 20% of total value of steel imports. China approaches Turkey to become a major steel exporter to Lebanon with the value of steel exported to Lebanon totaling USD 113.7 million in January-July 2013, hence constituting a share of 20% out of total steel imports.

USD Million	Jan-July 2013
Ukraine	144.6
Turkey	113.8
China	113.7
Egypt	36.0
Italy	30.6
Belarus	20.3
Russia	15.3
Spain	8.1
Bulgaria	1.7
Others	91.3

Source: Lebanese Customs

Value of Steel Imports by Country (Jan - July 2013)



Source: Lebanese Customs

Evolution of Steel Exports:

The Period 2009-2012:

With domestic demand consuming most of imported and locally produced steel products, Lebanon has modest steel export activity. Yet, despite the fact that Lebanon is a net importer of steel, Lebanese steel companies follow export-oriented strategies to strengthen their regional presence.

During the year 2010, the value of exported steel rose by 44% to reach USD 252 million, up from USD 175 million in the previous year. This increase came in line with a 36.5% rise in the volume of exported steel which recorded 572,000 tons in 2010, up from 419,000 tons in the previous year. Despite the regional turmoil, exports of steel continued to rise in 2011, mainly due to the fact that growing emerging economies constitute the main importers of steel from Lebanon. Hence, in the year 2011, the value of exported steel further increased by 23.1% to reach USD 310 million, while the volume rose by 8.2% to reach 619,000 tons. Conversely, the value of exported steel dropped in 2012, falling by 33.2% to reach USD 207 million. Similarly, the volume of exported steel witnessed 34.4% decrease, recording 406,000 tons, reflecting weaker economic activity.



Source: Lebanese Customs

The Period January-July 2013:

During the period January-July 2013, the volume of exported steel totaled 93,500 tons, witnessing a 27.2% rise from 230,700 tons in the same period last year. Similarly, the value of exported steel increased by 14.8% y-o-y from USD 121.2 million in January-July 2012 to USD 139.1 million in the same period of 2013. Hence, the increase in volume offset the rise in value of exported steel resulting in a decline in the cost per ton of exported steel by 9.8%, to reach USD 474.1 as of July 2013, compared to USD 525.4 in the same period last year. A comparison of cost per ton of imported steel with the cost per ton of exported steel reveals that the cost is much lower on the export side. This is mainly due to the fact that Lebanon mostly exports steel scrap which generally has a lower price.

	Jan - July 2012	Jan - July 2013	Y-o-Y Change
Volume of Exported Steel (000's tons)	230.7	293.5	27.2%
Value of Exported Steel (USD Million)	121.2	139.1	14.8%
Cost per Ton of Exported Steel (USD)	525.4	474.1	-9.8%

Source: Lebanese Customs

Value of Steel Exports by Country:

The Period 2009-2012:

During the year 2010, the value of exported steel to Turkey saw the highest increase of 116%, to reach USD 174.7 million. Likewise, the value of exported steel to UK and UAE rose by 47% and 13%, to reach USD 6.2 million and USD 7.2 million, respectively. On the other hand, the value of exported steel to Iraq and Syria declined by a yearly 58% and 53%, to reach USD 5.8 million and USD 2.6 million, respectively.

After having declined in 2010, the value of exported steel to Syria saw a significant 213% rise in 2011, increasing to USD 8.0 million in 2011 from USD 2.6 million in the previous year. As a matter of fact, the cut back in Syrian local production as the country witnessed a turmoil has made Syria shift towards foreign markets to meet local demand for industrial products, including steel. Likewise, steel exports to Jordan reversed the decreasing trend and witnessed a 22% rise in 2011, to reach a value of USD 5.6 million. Furthermore, steel exports to Turkey continued the

rising trend, increasing by 18% in 2011, to reach USD 206.9 million. In fact, due to the absence of steel recycling companies in Lebanon, steel scrap is mostly exported to Turkey where it is recycled.

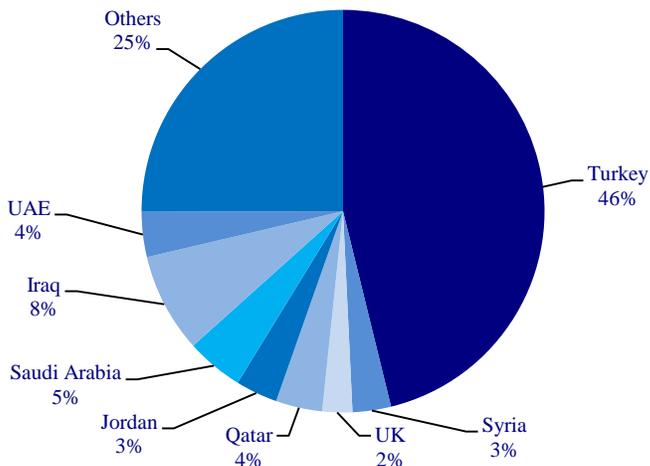
In 2012, steel exports to Qatar saw a significant 73% rise to reach a value of USD 7.3 million. Also, the value of exported steel to the UK increased by 19% to reach USD 8.0 million. Likewise, steel exports to Syria continued to rise in value by 6%, amounting to USD 8.5 million. On the other hand, slower economic activity has made the value of exported steel to all other countries fall in 2012. Specifically, after witnessing stellar growth in 2010 and 2011, steel exports to Turkey dropped by 38% in 2012 to reach USD 127.4 million. Furthermore, the value of exported steel to each of UAE and Saudi Arabia saw 37% and 31% declines, totaling USD 2.8 million and USD 3.9 million, respectively.

USD Million	2009	2010	2011	2012
Turkey	80.9	174.7	206.9	127.4
% Change		116%	18%	-38%
Syria	5.4	2.6	8.0	8.5
% Change		-53%	213%	6%
UK	4.2	6.2	6.7	8.0
% Change		47%	8%	19%
Qatar	6.5	4.6	4.2	7.3
% Change		-29%	-9%	73%
Jordan	5.9	4.6	5.6	5.4
% Change		-22%	22%	-4%
Saudi Arabia	8.1	6.1	5.7	3.9
% Change		-24%	-6%	-31%
Iraq	14.0	5.8	3.6	3.3
% Change		-58%	-38%	-10%
UAE	6.4	7.2	4.4	2.8
% Change		13%	-38%	-37%
Others	43.9	40.5	65.0	41.0
% Change		-8%	61%	-37%

Source: Lebanese Customs

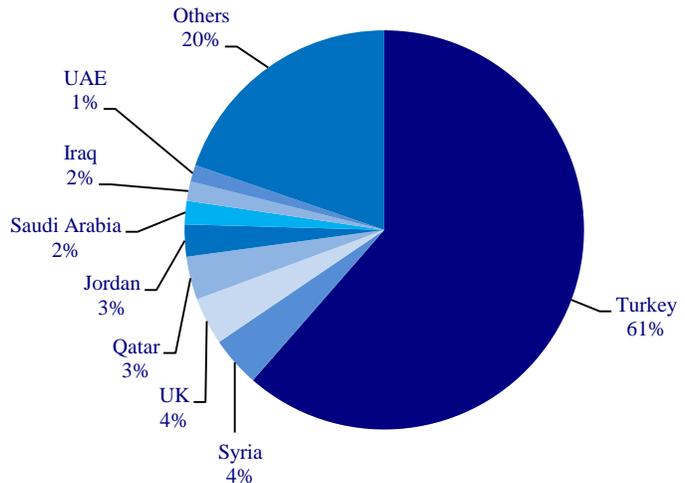
Over the period 2009-2012, the value of exported steel to Turkey as a share of total steel exports increased from 46% in 2009 to 61% in 2012, hence reinforcing Turkey as the major steel trading partner of Lebanon. Concurrently, Syria's share of the total value of steel exports rose from 3% in 2009 to 4% in 2012. On the other hand, while Jordan maintained a stable 3% share of total steel exports value over the period 2009-2012, the share of UAE out of total steel exports dropped over the aforementioned period, from 4% in 2009 to 1% in 2012.

Value of Steel Exports by Country (2009)



Source: Lebanese Customs

Value of Steel Exports by Country (2012)



Source: Lebanese Customs

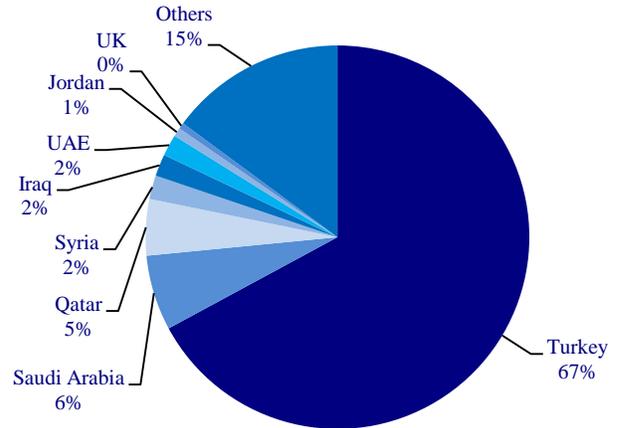
The Period January-July 2013:

In terms of value of exported steel by country, steel exported to Turkey recorded the highest value, totaling USD 93.4 million, and constituting a 67% share of total exported steel during the period January-July 2013. The value of steel exported to Saudi Arabia came second with a total value of USD 8.8 million, equivalent to 6% of total value of steel exports. As for the value of steel exports to Qatar, it totaled USD 6.6 million, hence constituting a share of 5% out of total steel exports. In addition, the value of steel exported to Syria reached USD 2.8 million, constituting a share of 2% .

USD Million	Jan-July 2013
Turkey	93.4
Saudi Arabia	8.8
Qatar	6.6
Syria	2.8
Iraq	2.6
UAE	2.5
Jordan	1.0
UK	0.7
Others	20.7

Source: Lebanese Customs

Value of Steel Exports by Country (Jan - July 2013)



Source: Lebanese Customs

Modeling Lebanon's Steel Imports:

This study attempts at modeling Lebanon's steel imports using a traditional price-income model. It examines the impact of Lebanon's economic activity and its real effective exchange rate on Lebanon's demand for steel imports. Two hypotheses are tested:

- Increased economic activity is associated with higher demand for steel and thus higher steel imports.
- Real appreciation of exchange rate is associated with lower competitiveness and thus higher steel imports

To test these hypotheses, the Johansen-Juselius Co-integration test is applied to prove the existence of a long-term relationship between steel imports, economic activity and real exchange rate. If this stable long-term relationship exists, it would then be possible to develop quantitative inferences about expectation of future steel imports from observing changes in economic activity and the real exchange rate. Hence, Ordinary Least Squares estimation is aimed at developing the direction of relationship between the stated variables.¹

This study considers data on Lebanon's steel imports over the period 1995-2011. As a proxy of the country's economic activity, GDP at constant prices is used. Furthermore, Lebanon's real exchange rate is approximated with IMF's Real Effective Exchange Rate (REER) index.²

The Johansen-Juselius Co-integration test reveals that Lebanon's steel imports are co-integrated with the country's economic activity and real exchange rate. Hence, there exists long-term co-movement between the three variables. Specifically, the test reveals one co-integrated equation between steel imports, GDP, and REER at 5% significance levels. Thus, it can be concluded that Lebanon's economic activity and its real exchange rate are significant indicators for explaining variation in Lebanese steel imports.

¹ Technical details on the tests performed can be found in Appendix 1.

² The three variables: Steel Imports, GDP, and REER are tested for integration using ADF test. These variables appear to be non-stationary at level but stationary at first difference, and are hence integrated of order one. The results are omitted for simplicity purposes.

The co-integration results hence allow the performance of Ordinary Least Squares estimation. The procedure is to regress Lebanon's steel imports on GDP and REER. The estimated equation explains 48% of the adjusted variation in Lebanon's steel imports, thus making the estimation quite reliable. The analysis showed that there exists a positive relation between steel imports and GDP, indicating that the first hypothesis is accepted. In fact, a rise in GDP by USD 100,000 contributes to an increase in steel imports by 2 tons. Furthermore, the test confirms the impact of real exchange rate on steel imports as hypothesized above. In fact, an appreciation in real exchange rate as indicated by a 1 point rise in REER index contributed to an increase in steel imports by 1,025 tons.

Hence, the price-income model applies to Lebanon's steel imports. Higher economic activity as indicated by higher GDP leads to increased steel imports. This is known as the income effect. Furthermore, an increase in REER (real exchange rate appreciation) makes Lebanon's steel imports from the world cheaper, hence increasing steel imports. This is known as the price effect.

Appendix 1:

Johansen-Juselius Co-integration Test:

Sample (adjusted): 1997 2011
 Included observations: 15 after adjustments
 Trend assumption: Linear deterministic trend
 Series: GDP REER STEEL
 Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.811409	39.21177	29.79707	0.0031
At most 1	0.585384	14.18914	15.49471	0.0779
At most 2	0.063437	0.983083	3.841466	0.3214

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level
 * denotes rejection of the hypothesis at the 0.05 level
 **MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.811409	25.02263	21.13162	0.0134
At most 1	0.585384	13.20605	14.26460	0.0730
At most 2	0.063437	0.983083	3.841466	0.3214

Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level
 * denotes rejection of the hypothesis at the 0.05 level
 **MacKinnon-Haug-Michelis (1999) p-values

Ordinary Least Squares Estimation:

Dependent Variable: STEEL				
Method: Least Squares				
Sample: 1995 2011				
Included observations: 17				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP	2.02E-05	4.89E-06	4.122253	0.0010
REER	1025.538	4798.600	0.213716	0.8338
C	-200766.0	597105.4	-0.336232	0.7417
R-squared	0.553465	Mean dependent var		666176.5
Adjusted R-squared	0.489674	S.D. dependent var		330883.3
S.E. of regression	236373.4	Akaike info criterion		27.74300
Sum squared resid	7.82E+11	Schwarz criterion		27.89004
Log likelihood	-232.8155	Hannan-Quinn criter.		27.75761
F-statistic	8.676264	Durbin-Watson stat		2.154900
Prob(F-statistic)	0.003540			

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