

## 4. INDUSTRY

*Industry deals with the production of some goods, industrial foreign trade, energy, and book industry.*

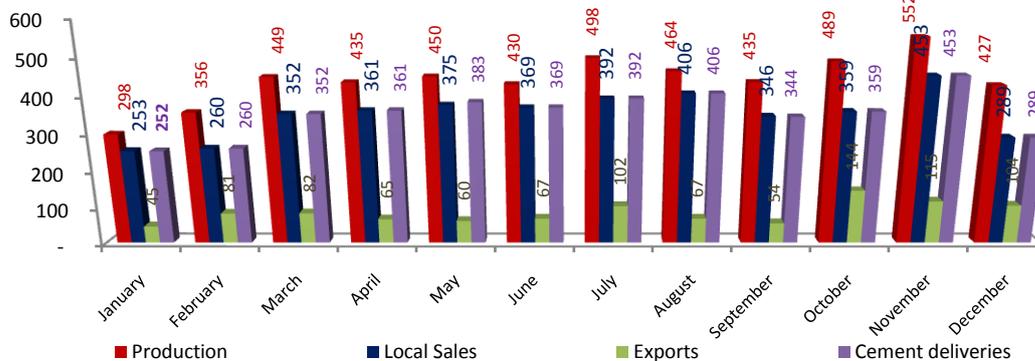
### Production of some goods

The production of some goods deals with cement and bottled water, soda and juice based on the correspondant establishments data. The statistics are provided by some companies producing these goods.

#### *Cement*

Total production of cement is 5,823 thousand tons in 2008. 4,219 thousand tons are delivered of which 99.9% are incoming of local sales. Exports are 986 thousand tons.

**Graph 4.1 – Production, local sales, deliveries and exports of cement in 1,000 tons in 2008**



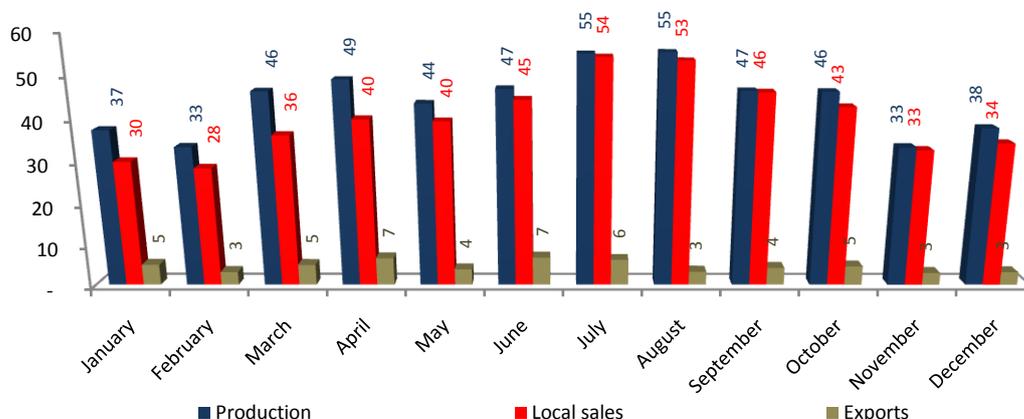
*Graph made by CAS based on cement companies data (2008)*

November is the peak for cement production (10.4%), for local sales (10.7%) and for deliveries (10.7%). While October is the peak for cement exports (14.6%).

#### *Bottled water, soda and juice*

Total production of bottled water, soda and juice is 532 million liters in 2008. 483 million liters are sold locally and 54 million liters are exported.

**Graph 4.2 – Production, local sales and exports of bottled water, soda and juice in 1,000,000 liters in 2008**



*Graph made by CAS based on bottled water, soda and juice companies data (2008)*

July (10.3%) and August (10.3%) are the peaks for production. July (11.2%) is the peak for local sales. April (9.3%) and June (9.3%) are the peaks for exports.

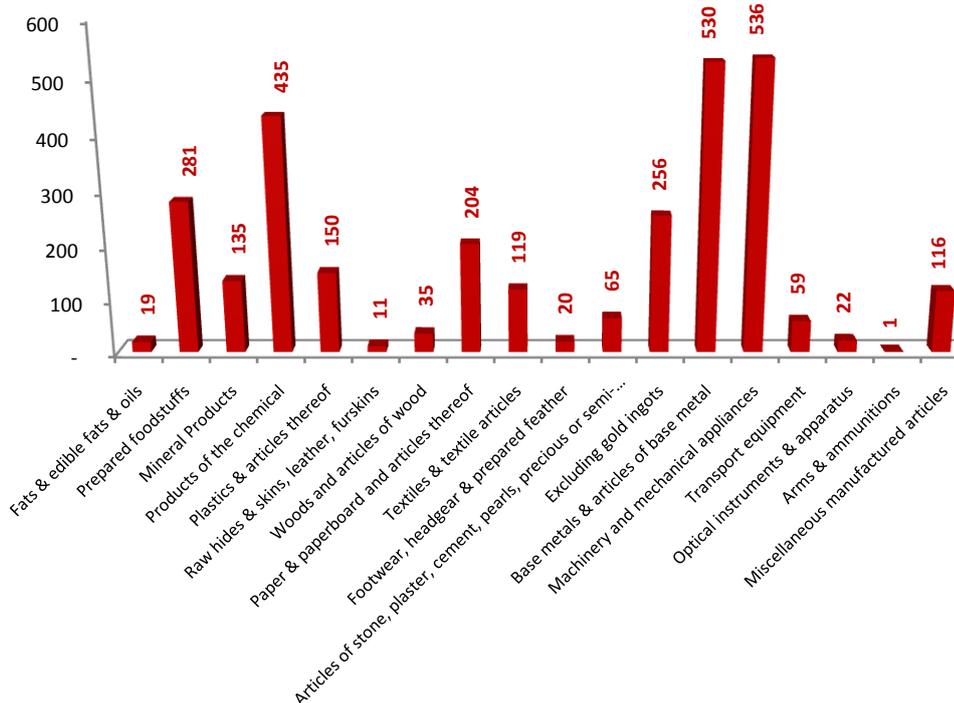
## Industrial foreign trade

Based on the Ministry of Industry data, industrial foreign trade deals with industrial exports by product and imports of industrial equipment and machinery by country.

### *Industrial exports by product*

Total industrial exports by product are equal to 2,994 million USD in 2008. October (9.3%) is the peak for these exports. While machinery and mechanical appliances are the peak of these exports (17.9%). The peak of machinery and mechanical appliances is in December (11.9%).

**Graph 4.3 – Industrial exports by product in million USD in 2008**



Graph made by CAS based on Industry General Directorate data (2008)

### *Imports of industrial equipment and machinery by country*

Total imports of industrial equipment and machinery are equal to 283,299,884,950 LBP in 2008. May (12.6%) is the peak of imports.

Lebanon imports most of industrial equipment and machinery from Italy (24.2%), Germany (21.4%) and China (15.9%). Thus, total imports of these three countries constitute 61.5% of these total imports in LBP.

**Table 4.1 –Top 3 countries for imports of industrial equipment machinery in LBP in 2008**

|                             | Value                  | Percentage   | Peak month value            | Peak month percentage |
|-----------------------------|------------------------|--------------|-----------------------------|-----------------------|
| <b>Total imports in LBP</b> | <b>283,299,884,950</b> | <b>100.0</b> | <b>May (35,754,602,773)</b> | <b>May ( 12.6)</b>    |
| Italy                       | 68,590,806,500         | 24.2         | October (8,956,953,795)     | October (13.1)        |
| Germany                     | 60,648,764,280         | 21.4         | August (7,393,950,063)      | August (12.2)         |
| China                       | 45,012,772,666         | 15.9         | July (7,059,669,724)        | July (15.7)           |

Table made by CAS based on Industry General Directorate data (2008)

## Energy

*Energy deals with Electricité du Liban activity, imports, tariffs and warehouse activity of petroleum products, and geographic distribution of hydrocarbon statistics.*

### *Electricité du Liban*



Source: <http://www.edl.gov.lb/photogallery.htm>

Based on Electricité du Liban data for 2008, Electricité du Liban produces 12,221 million KWh of which 99.3% are thermal and 0.7% are hydraulic energy.

Energy purchases are 867 million KWh of which 64.7% are thermal and 35.3% are hydraulic.

Finally, network energy consumption is 10,769 million KWh of which thermal (96.7%) and hydraulic (3.3%).

**Table 4.2 – Energy production, purchases, and consumption in million KWh in 2008**

| Energy                     | Million KWh   | Percentage   | Peak month million KWh | Peak month percentage |
|----------------------------|---------------|--------------|------------------------|-----------------------|
| <b>Production</b>          | <b>10,221</b> | <b>100.0</b> | <b>July (981)</b>      | <b>July ( 9.6)</b>    |
| Hydraulic                  | 67            | 0.7          | March (15)             | March (22.4)          |
| Thermal                    | 10,153        | 99.3         | December (945)         | December (9.3)        |
| <b>Purchases</b>           | <b>867</b>    | <b>100.0</b> | <b>March (124)</b>     | <b>March ( 14.3)</b>  |
| Hydraulic                  | 306           | 35.3         | February (49)          | February (16.0)       |
| Thermal                    | 561           | 64.7         | May (83)               | May (14.8)            |
| <b>Network consumption</b> | <b>11,142</b> | <b>100.0</b> | <b>August (1,037)</b>  | <b>August ( 9.3)</b>  |
| Hydraulic                  | 373           | 3.3          | March (63)             | March (16.9)          |
| Thermal                    | 10,769        | 96.7         | August (1,015)         | August (9.4)          |

*Table made by CAS based on Electricité du Liban data (2008)*

Hydraulic energy (67 million KWh) is produced by Qadisha station (80.6%) and by Safa Station (20.9%). Thermal energy consists of several types.

**Table 4.3 – Thermal energy production, purchases and consumption in million KWh in 2008**

| Thermal energy             | Million KWh   | Percentage | Peak month million KWh | Peak month percentage |
|----------------------------|---------------|------------|------------------------|-----------------------|
| <b>Total production</b>    | <b>10,153</b> | <b>100</b> | <b>December (945)</b>  | <b>December (9.3)</b> |
| Steam                      | 3,485         | 34.3       | July (326)             | July (9.4)            |
| Gas                        | 525           | 5.2        | August (81)            | August (15.4)         |
| Qadisha                    | 267           | 2.6        | July (28)              | July (10.5)           |
| Mixed                      | 5,877         | 57.9       | December (568)         | December (9.7)        |
| <b>Network consumption</b> | <b>10,769</b> | <b>100</b> | <b>August (1,015)</b>  | <b>August (9.4)</b>   |
| Steam                      | 3,852         | 35.8       | August (374)           | August (9.7)          |
| Gas                        | 525           | 4.9        | August (81)            | August (15.4)         |
| Mixed                      | 5,877         | 54.5       | December (568)         | December (54.6)       |
| From Syria                 | 515           | 4.8        | May (83)               | May (16.1%)           |

*Table made by CAS based on Electricité du Liban data (2008)*

### *Imports of petroleum products*

Based on the Ministry of Energy and Water data, these petroleum products are of several types: liquid gas, unleaded petrol 98 and 95 Octane, kerosene for aircraft, imported oil by the private sector (Diesel oil), imported oil by the Ministry of Energy and Water for Electricité du Liban and for the local market (imported through the refineries of Tripoli and Zahrani), imported fuel-oil by the Ministry of Energy and Water for Electricité du Liban, and asphalt.

**Table 4.4 – Imports of oil products in tons in 2008**

| <b>Oil products</b>  | <b>Tons</b>    | <b>Peak month million KWh</b> | <b>Peak month percentage</b> |
|--|----------------|-------------------------------|------------------------------|
| Liquid gas   | 58,933         | January (11,895)              | January (20.2)               |
| Unleaded petrol 98 octane  | 132,762        | August (34,924)               | August (26.3)                |
| Unleaded petrol 95 octane  | 820,795        | March (120,899)               | March (14.7)                 |
| Kerosene for aircraft  | 202,429        | April (55,583)                | April (27.5)                 |
| Imported oil by the private sector (Diesel oil)                                | 66,388         | April (28,746)                | April (43.3)                 |
| Imported oil by the Ministry of Energy and Water for Electricité du Liban      | 1,263,155      | January (160,273)             | January (12.7)               |
| <b>Imported oil by the Ministry of Energy and Water for the local market</b>   | <b>387,755</b> | <b>March (69,645)</b>         | <b>March (18.0)</b>          |
| Refineries of Tripoli & Zahrani – Gas-oil                                      | 287,755        | March (69,645)                | March (18.0)                 |
| Imported fuel-oil by the private sector  | 76,500         | September (34,000)            | September (44.4)             |
| Imported fuel-oil by the Ministry of Energy and Water for Electricité du Liban | 1,076,521      | July (133,165)                | July (7.8)                   |
| Asphalt  | 52,320         | December (7,711)              | December (14.7)              |

*Table made by CAS based on the Ministry of Energy and Water data (2008)*

### *Tariffs of petroleum products*

The Ministry of Energy and water publishes each week the tariffs of several petroleum products. A table will display these prices in January and December in 2007 and in 2008 in order to observe the tariffs changes.

**Table 4.5 – Tariffs of petroleum products in LBP in 2007 and in 2008**

| <b>Petroleum product</b>  | <b>2007</b>                |                             |                              | <b>2008</b>                |                             |                              |
|---------------------------|----------------------------|-----------------------------|------------------------------|----------------------------|-----------------------------|------------------------------|
|                           | <b>January price (LBP)</b> | <b>December price (LBP)</b> | <b>2007 price change (%)</b> | <b>January price (LBP)</b> | <b>December price (LBP)</b> | <b>2008 price change (%)</b> |
| Oil octane 98             | 23,500                     | 24,900                      | +6.0                         | 25,500                     | 23,500                      | -7.8                         |
| Oil octane 95             | 22,800                     | 24,100                      | +5.7                         | 24,700                     | 22,800                      | -7.7                         |
| Kerosene                  | 18,100                     | 25,300                      | +39.8                        | 25,600                     | 14,500                      | -43.4                        |
| Mazout                    | 14,700                     | 22,800                      | +55.1                        | 23,100                     | 13,600                      | -41.1                        |
| Deizel oil for vehicles   | 17,900                     | 26,200                      | +46.4                        | 26,600                     | 14,900                      | -44.0                        |
| Fuel kiloliter            | 296                        | 546                         | +84.5                        | 494                        | 282                         | -42.9                        |
| Liquid gas cylinder 10 Kg | 12,100                     | 17,500                      | +44.6                        | 17,500                     | 10,200                      | -41.7                        |
| Liquid gas cylinder 12 Kg | 14,800                     | 21,600                      | +45.9                        | 21,500                     | 12,200                      | -43.3                        |
| Liquid gas ton            | 715                        | 1,076                       | +50.5                        | 1,074                      | 661                         | -38.5                        |
| Propane ton               | 763                        | 1,090                       | +42.9                        | 1,092                      | 601                         | -45.0                        |
| Butane ton                | 703                        | 1,072                       | +52.5                        | 1,069                      | 511                         | -52.2                        |

*Table made by CAS based on the Ministry of Energy and Water data (2008)*

All petroleum products prices increase in 2007 and decrease in 2008. They follow the international petroleum products prices trends especially that Lebanon relies for 100% on these products imports.

### Petroleum products warehouses activity

40 companies deal with the General Directorate of Petroleum – Ministry of Energy and Water to import and stock petroleum products. Based on the Ministry of Energy and Water data, a table will dress the changes between January and December 2008 for quantitative withdrawal.

**Table 4.6 –Petroleum products withdrawals in quantities in 2008**

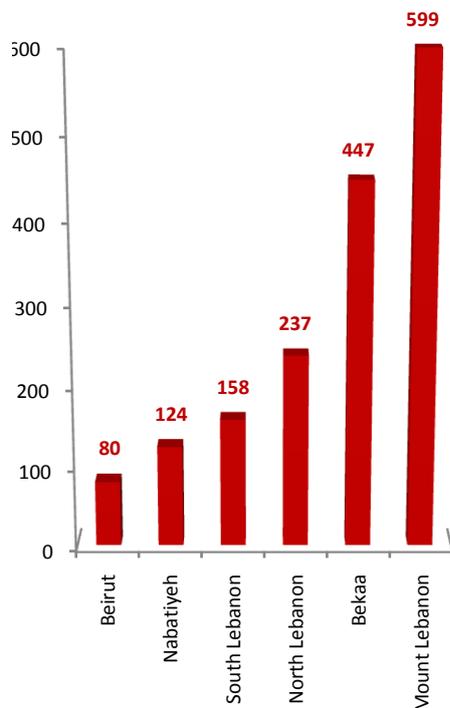
| Product withdrawal               | 2008           |                       |                 |
|----------------------------------|----------------|-----------------------|-----------------|
|                                  | Total quantity | Peak month (quantity) | Peak month (%)  |
| Oil octane 95 (liters)           | 1,488,366,858  | October (145,431,983) | October (9.8)   |
| Oil octane 98 (liters)           | 323,361,292    | October (35,997,939)  | October (11.1)  |
| Mazout (liters)                  | 226,659,852    | October (38,646,999)  | October (17.1)  |
| Kerosene for planes (liters)     | 198,791,351    | August (25,084,313)   | August (12.6)   |
| Kerosene for households (liters) | 1,210,086      | March (200,562)       | March (16.6)    |
| Asphalt (kg)                     | 31,056,589     | December (3,329,958)  | December (10.7) |
| Liquid gas (kg)                  | 148,380,888    | December (18,737,663) | December (12.6) |

Table made by CAS based on the Ministry of Energy and Water data (2008)

### Geographic distribution of hydrocarbon stations in Lebanon

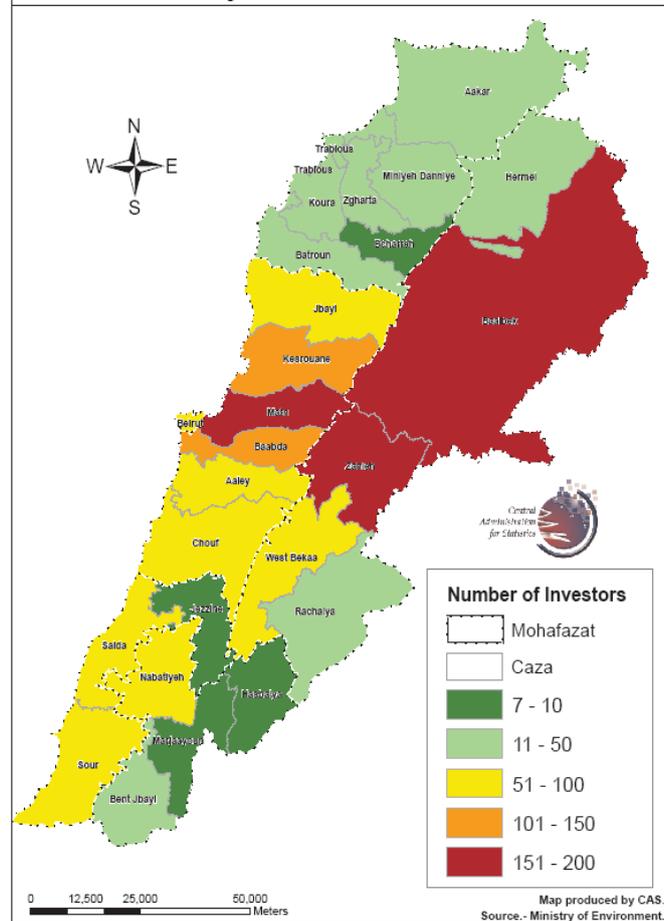
There are 1,645 hydrocarbon stations by investor in 2008. Mount-Lebanon (36.4%) is the peak.

**Graph 4.4 – Number of hydrocarbon stations distributed by investor in 2008 in Lebanon**



Graph made by CAS based on the Ministry of Energy and Water data (2008)

**Number of Hydrocarbon Stations per Caza by Investor in 2008**

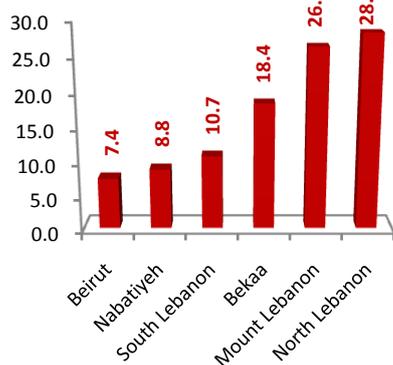


## Book industry

*Book industry deals with printing houses, exported titles, libraries, publishing houses and book exposition.*

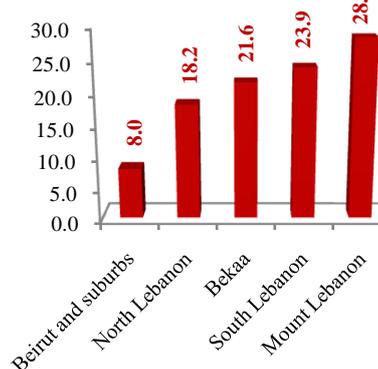
In 2008, there are 165 printing houses in Lebanon registered at the Syndicate of Printing houses in Lebanon. Mount-Lebanon (66.1%) is the peak. There are also 364 registered libraries at the Syndicate of Libraries in Lebanon. North-Lebanon (28.3%) is the peak. Besides, there are 88 public libraries in 2008. Mount Lebanon (28.4%) is the peak. Finally, there are 251 publishing houses in Lebanon. Beirut (60.2%) is the peak.

**Graph 4.5 – % of libraries registered at the Syndicate of Libraries in 2008**



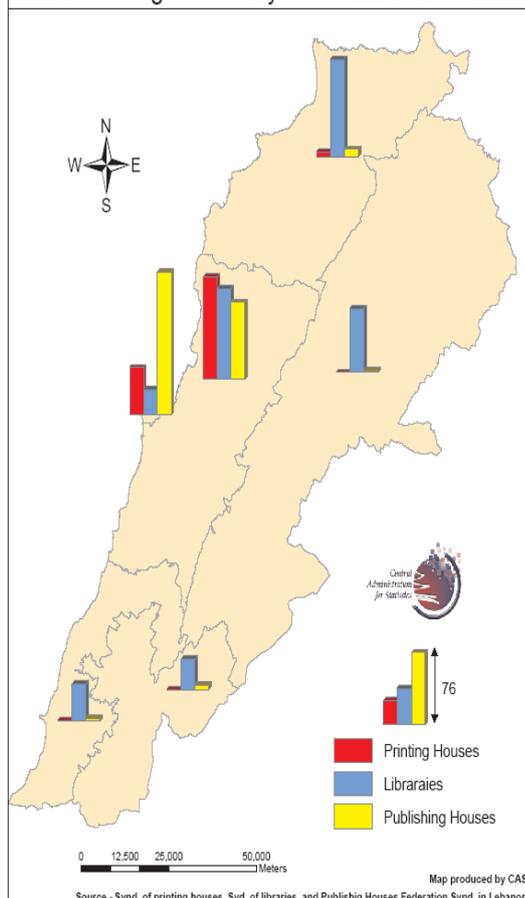
*Graph made by CAS based on the Syndicate of Libraries data (2008)*

**Graph 4.6 – % of public libraries in 2008 in Lebanon**



*Graph made by CAS based on the Syndicate of Libraries data (2008)*

**Printing Houses, Libraries and Publishing Houses by Mohafazat in 2008**



Lebanon exports 195 titles in 2007 and 323 in 2008. Thus, titles exports increase of 65.6% between 2007 and 2008. 26 owners export their books in 2007 and 57 in 2008. Thus, the number of these owners increases of 119.2% between 2007 and 2008.

**Table 4.7 – Percentage of imported titles**

| Peak in %                  | 2007 | 2008 |
|----------------------------|------|------|
| Political science          | 22.1 |      |
| Stories, novels and poetry |      | 25.4 |
| Titles in Arabic language  | 78.5 | 74.9 |

*Table made by CAS based on the General Directorate of General Security data (2008)*

National Library possesses 133,104 books in 2006 of which 55.7% are released during 1921-1975 and 37.4% are in Arabic. It also possesses 5,661 periodic of which 49.3% are in Arabic.

Finally, Nadi Sakafi Arabi Book exposition sales in USD are 1,163,065 USD in 2007 and 1,854,324 USD in 2008. Thus, the increase of sales in USD is 59.4% during 2007-2008. Present Arabic edition houses are 17 in 2007 and 33 in 2008. Thus the increase for the same period is 94.1%. While Jamiyat al-Maarif-al-Islamiyah for Arab and International Book local sales are 232,172 USD in 2007 and 703,229 USD in 2008. Thus the increase in sales in USD is of 202.9% between 2007 and 2008. The number of publishing houses is 258 in 2007 and 170 in 2008. Thus, the number of publishing houses decreases of 34.1% between 2007 and 2008.