Contents

TRADE U.S.A.
Exploring Opportunities

A project of

AMERICAN-HELLENIC
CHAMBER OF COMMERCE

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1.1. OVERVIEW OF THE USA CONSTRUCTION INDUSTRY

The construction industry is a critical sector in industrialized economies since "**it builds and maintains the structures and infrastructure on which nearly every other industry depends**" (OECD, 2015).

Amongst the industry's main characteristics is its high diversity in ters of the structures which it includes i.e. residential, non-residential (commercial, lodging, education, public health, religious and offices) and industrial buildings, all of which require the appropriate materials and specialized skills for completion. Consequently, the sector trade within the construction industry takes place on multiple levels and is divided into three main categories; that of specialized labor, machinery (capital) and construction materials.

In the US economy, the construction sector plays an important role, accounting for approximately 5% of total GDP in 2012 and has since begun to grow (FMI Construction Outlook Report, 2015).

Figure 1: Construction as a Percentage of GDP
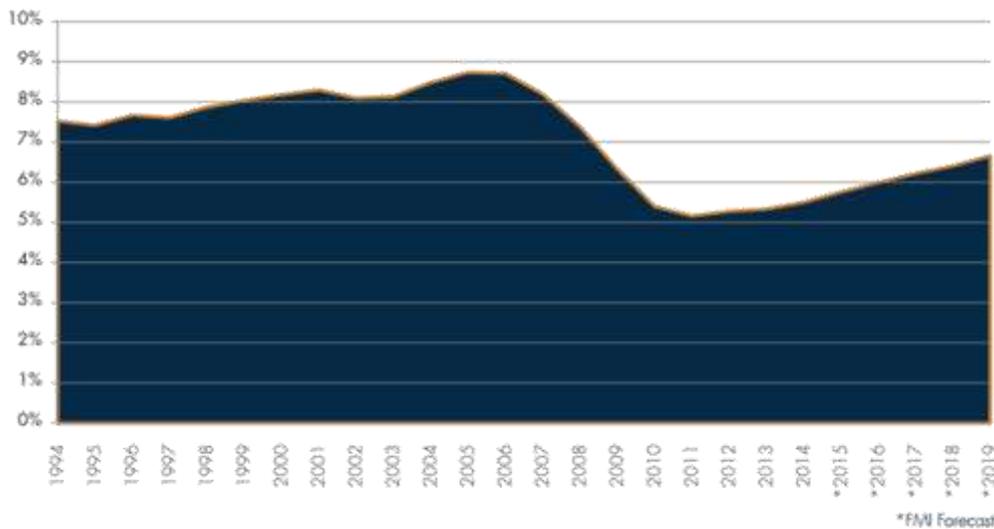
Source: FMI Construction Outlook Report, 2015

Since the beginning of 2013 the construction industry is showing significant signs of recovery in spite of persistently high mortgage rates, after four consecutive years of stagnation, due to the global financial crisis and a drastic decrease in demand. As a result of improved consumer confidence and declining unemployment rates, new residential homes are once again being constructed. The construction industry expanded by 3% in 2013 at reaching $961.1 billion, this level however is still 22% lower than the compared to the levels previous to the economic crisis and is forecasted to grow at an average of 3% over the period 2013 – 2019.

Figure 2: Production in Construction vs. Nominal GDP 2000 – 2020

Source: Euromonitor International from official statistics, trade associations, trade press, company research.

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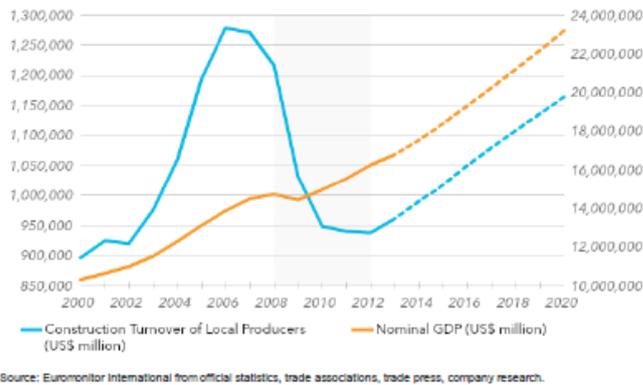
Source: Euromonitor, 2014

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Figure 2, compares the turnover of local producers in construction to the nominal GDP in millions of dollars. After 2010 the turnover from construction decreases and from 2012 begins to recover. The industry's growth indices by sector are analyzed in figure 3. They all follow a similar trend with preparation and building completion being the fastest growing sectors. Building installations is the slowest growing sector in the construction industry.

Figure 3: Industry's Sectors' Growth Indices 2000- 2020

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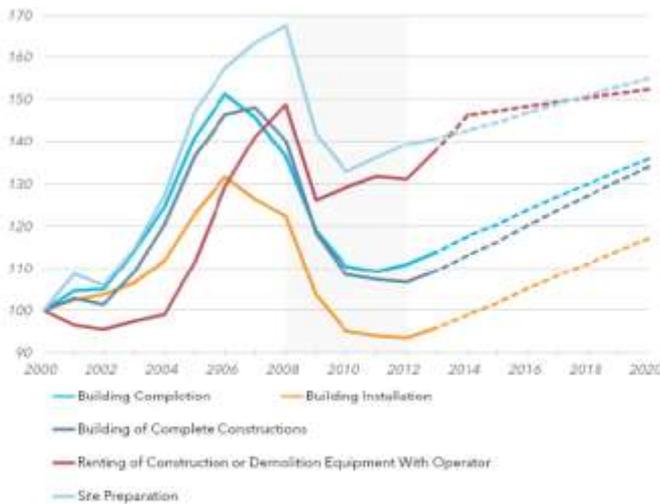
Source: Euromonitor, 2014

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The main exporting destinations according to the Euromonitor for the construction industry are summarized below. The majority of the exports go to Canada and Mexico which are neighboring countries and part of the NAFTA. Ukraine is the only eastern European destination of USA exports, which is followed by Panama and Australia.

1.2. HARMONIZING (HS) CODES

The HS codes which are presented below belong to the category for construction materials and appliances the markets of which are going to be analyzed in this report since they are considered of primary importance to the construction industry.

HS Code	Product Label	Exporting Country
3208	Non aqueous solution of paint & varnish	**Canada, Germany, Mexico**
44	Wood and articles of wood, wood charcoal	**Canada, China, Brazil, Chile**
4402	Wood charcoal (including shell or nut charcoal), whether or not agglomerated	
4403	Wood in the rough, whether or not stripped of bark or sapwood, or roughly squared	
4407	Wood sawn or chipped lengthwise, sliced or peeled, whether or not planed, sanded or end-jointed, of a thickness exceeding 6mm	
4409	Wood (including strips and friezes for parquet flooring, not assembled) continuously shaped (tongued, grooved, rebated, chamfered, V-jointed, beaded, molded, rounded or the like) along any of its edges, ends or faces, whether or not planed, sanded or end-jointed	
68	Stone, plaster, cement, asbestos, mica etc. articles	**China, Italy, Mexico**
6801	Setts, curbstones and flagstones, of natural stone	
6802	Worked monumental/building stone and art. Mosaic cube granules	
6803	Worked slate and articles of slate	
681011	Building Blocks and bricks of cement, concrete or artificial stone	
6814	Worked mica and articles of mica, nowhere else specified (nes)	
70	Glass and glassware	**China, Mexico, Germany**
7003	Cast & rolled glass, sheets/ profiles	
7004	Drawn or brown, glass in sheets	
7005	Float glass & surf grd/polished glass in sheets	
7006	Glass of 70. 03, 70.04, 70.05 bent, edge worked etc. not framed etc.	
7007	Safety glass, consisting of toughened or laminated glass	
7008	Multiple-walled insulated units of glass	
72	Iron and steel	**Canada, China, Brazil**
732410	Sinks and wash basins, stainless steel	**China, Mexico**
76	Aluminium and articles thereof	**Canada, China, UAE, Mexico**
7601	Unwrought aluminium	
7604	Aluminium bars, rods and profiles	
7605	Aluminium wire	
7606	Aluminium plates, sheets and strip, of a thickness exceeding 0.2mm	
7608	Aluminium tubes and pipes	
7609	Aluminium tube or pipe fittings	
7610	Aluminium structures nes & part of structures	
7611	Aluminium reservoirs, vats & sim container	
7616	Articles of aluminium nes	
8402	Steam or vapor boiler; super-heated water boiler	**Korea, Canada, China**
8418	Refrigerator, freezer, etc.	**Mexico, China, Korea**
8428	Lifting/handling/loading/unloading machinery (excl. lift/escalator/conve	**China, Spain**
842810	Lifts and skip hoists	**Mexico, Germany**
842820	Pneumatic elevators and conveyors	**Canada, Germany**
842840	Escalators and moving walkways	**China, Spain, Japan**

Source: International Trade Center (ITC)

The materials and appliances are summarized according to their corresponding international HS code next to which is a description of their basic properties and their major exporting countries.

The map pinpoints the geographical locations of the key supplying countries to the US market for construction materials and electrical appliances.

Figure 17: Major Exporting Countries to the US Supply Market of the Construction Industry
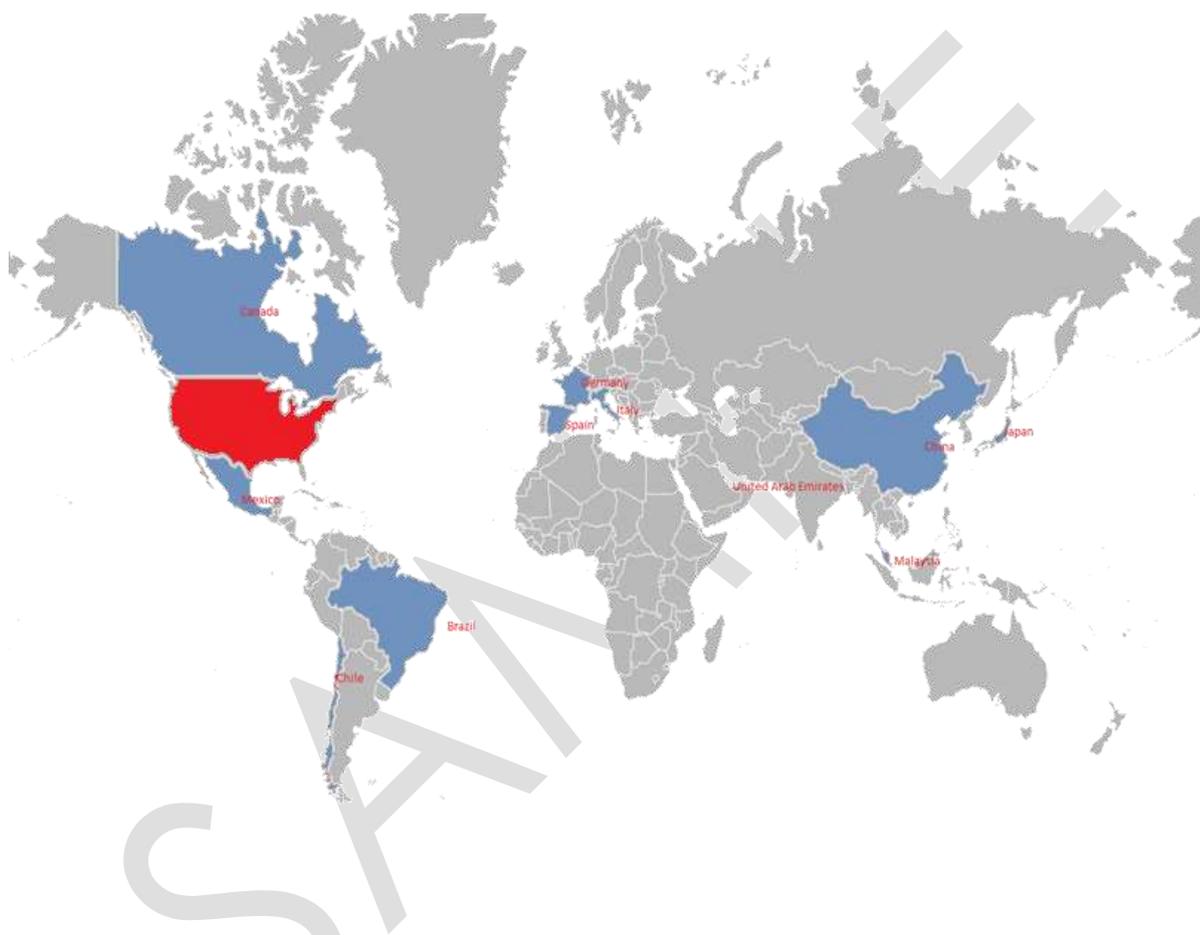
The following section analyzes the bilateral trade patterns between the US and the rest of the world (ROW) which supply the US market with the necessary materials in order to satisfy the demand of the domestic construction industry. Electrical appliances which are often used in construction include refrigerators, freezers, elevators, escalators and boilers. The trade patterns of these appliances are also in turn analyzed in this report.

2015 US Construction & Building Materials

Chapter 2 | International Competitive Landscape

2.1. BILATERAL TRADE PATTERNS & THE INTERNATIONAL COMPETITIVE LANDSCAPE

Overall, the US is a net importer of goods and services when it comes to international trade, which means that at an aggregate level the US imports more goods and services in terms of value than it exports. Specifically for 2014 the total value of imports in the US added up to 2,346,040,540 dollars. The most highly imported products to the US are oil and gas based goods which are imported from the Middle East and Canada and machinery and nuclear reactors, boilers (HS Code 84) and electrical equipment (HS Code 85) mainly from China and Mexico.

When referring to construction materials, the USA bilateral trade statistics indicate that with its trading partners the USA's most highly imported products are iron and steel (HS Code 72), aluminum (HS Code 76) and wood (HS Code 44). The most important HS Codes for the construction industry and their respective markets are analyzed in the forthcoming sections.
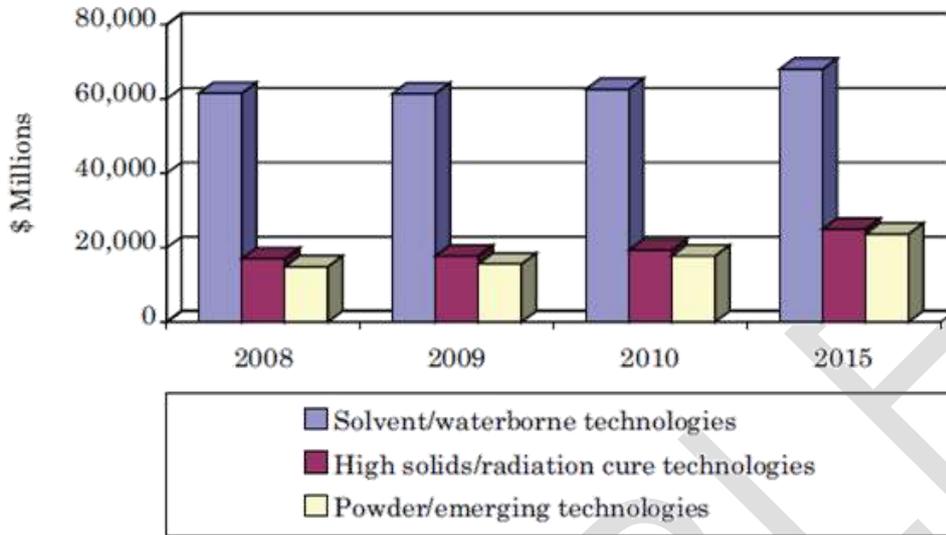
Non -Aqueous Solutions of Paints and Varnishes (HS Code 3208)

Although often disregarded, the market for paints and varnishes contributes significantly to a country's national economy and output. Paints, coatings and related products are the most commonly used substance to protect and preserve buildings and manufactured commodities against the development of rust, helping them to maintain their functionality. Other uses of paints and varnishes include the beautification or decoration of objects in construction, architecture, interior design and the automotive industry amongst others.

On an international level the market has been growing for the past five years and still remains healthy. By the end of 2010, the global market reached approximately $99.7 billion and grew at an average rate of 3.2% per year over the period 2010 – 2015, when it was estimated to reach a value of $116.6 billion (BCC Research).

The figure 18 below presents an overview of the global market for paints and coatings over the 8-year period, representing an upward trend. Paints and varnishes are found in various forms, the main ones being liquids, powder based paints and varnishes. The solvent and waterborne technologies segment predominate the market, reaching a value greater than $60,000 million dollars in 2015.

**Figure 18: Global Market for Paints and Coatings (2008 - 2015)**

Source: BCC Research

Non-aqueous solutions of paint are those which are dissolved in a substance other than water. The ITC classifies non-aqueous paints and varnishes in the same category under the same HS codes. The main difference between them is that paint is mostly used to protect color or provide texture to objects and may be transparent; however they have long range colors. Paints have added pigments and binders which enable the change of color of the reflect light. When they are applied paints form a semi-solid layer on the surface on which they have been applied, therefore acting as a barrier against environmental conditions. Varnishes are usually transparent with little or no color with no added pigments. Their application is the final step after the paint has been applied for protection and a glossy effect.

Since the domestic production is not sufficient to satisfy the US demand, both paints and varnishes are imported in large quantities to the USA from the ROW. The figure below summarizes the bilateral trade pattern which exists between the USA and the ROW for the period 2010 – 2014, based on International Trade Center (ITC) data.

Figure 19: Imported Value of Non-Aqueous Solutions of Paint and Varnish (HS Code 3208)

Source: International Trade Center (ITC)
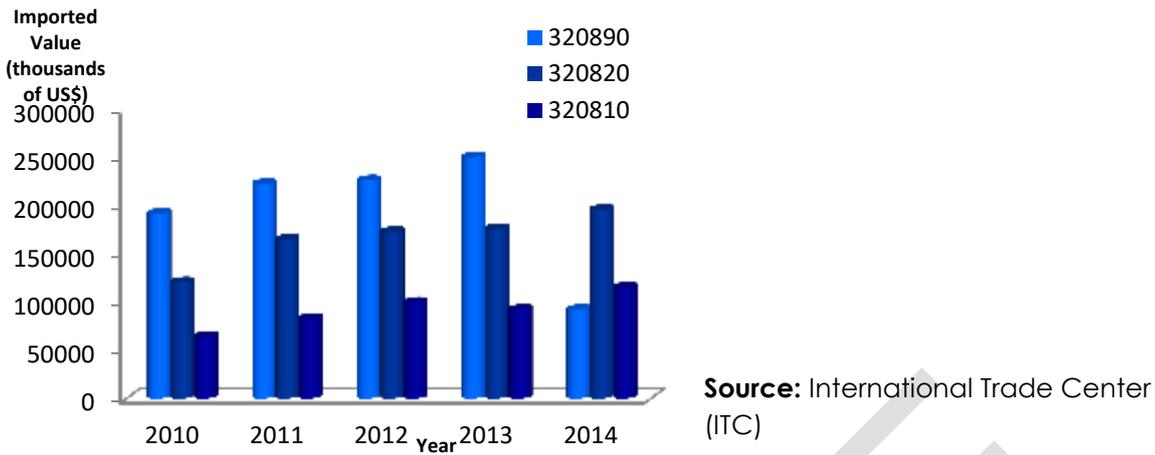
Paints and varnishes under the HS Code 3208 are divided into three main sub-categories: polymer based (HS Code 3208890), acrylic based (HS Code 320820) and polyester based (HS Code 320810). Acrylic based paints are commonly used for construction which has a high capability to withstand harsh weather conditions. For wooden surfaces varnishes are most commonly used while oil based or enamel based paints are used for metal surfaces in buildings.

Figure 19 above indicates that the most highly traded paints and varnishes between 2010 and 2013 are those which are polymer based (HS Code 320890). In 2014 this pattern changes and the imported value for HS Code 320890 decreases significantly. Acrylic based paints and varnishes (HS Code 320820) are highly traded in 2014 possibly indicating an increased demand from the construction industry compared to the previous years. This is also the case for polyester based paints and varnishes.

**Figure 20: Diversification of Suppliers in the US Market in 2014 (HS Code 3208)**

Source: International Trade Center (ITC)

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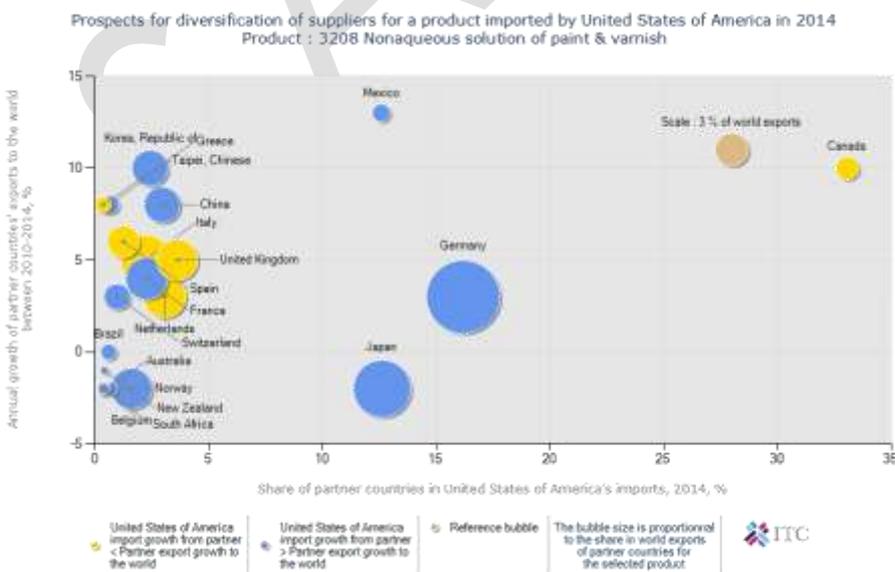
4.2. US EXPORTS OF CONSTRUCTION MATERIALS

The United States mostly exports highly industrialized products such as machinery, nuclear reactors, electrical equipment, aircrafts and vehicles, to the ROW maintaining a relative stable position in terms of exported value. The top exporting partners of the US are illustrated below in terms of the total exported value for the given period 2011 - 2015.

Figure 108: Main Exporting Partners of the US in terms of Monetary Value
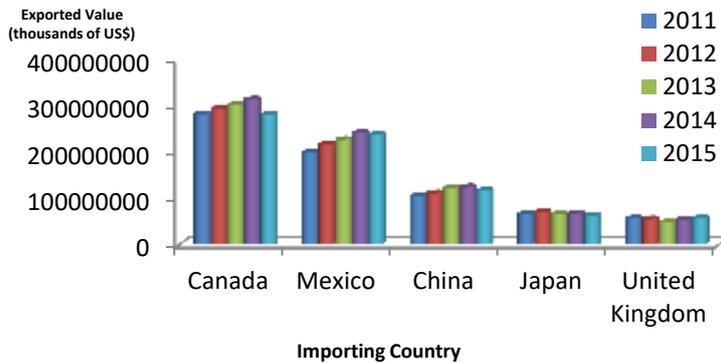
Source: Trade USA- US CENSUS BUREAU – UN COMTRADE

The top-exported materials used within the construction industry are presented below for the same given period. Overall the market follows a decreasing trend suggesting that most of the material in the industry is imported and less is being produced and exported to the world from the US. The most highly exported material from the US to the ROW is iron and steel with a monetary value which reaches $25000,000 in 2015.

Figure 109: Top-Exported HS Codes from the US to the ROW

Source: Trade USA- US CENSUS BUREAU – UN COMTRADE

2015 US Construction & Building Materials
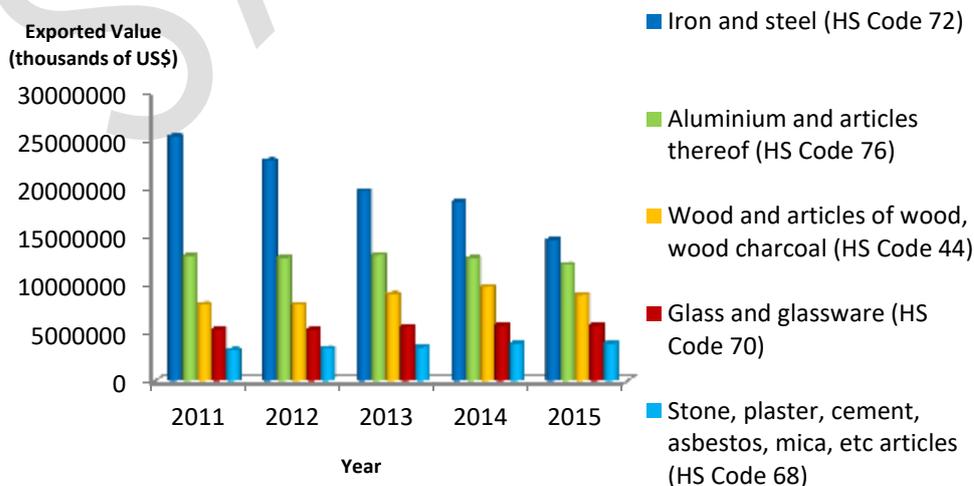
5.2. DIGITAL FOOTPRINT

Technology has become an essential tool in the everyday life of US consumers. Media information and the internet is a major way through which the average US consumer is informed and carries out market research inside and out of the workplace. On average in 2008, US consumers' daily media consumption was approximated at 100,500 words or almost 12 hours, according to research at the University of California (Measuring Consumer Information, 2012).

Hence so that the study is complete in its findings, the US construction market and its consumer trends also have to be studied from an online perspective. «Google trends» is a useful tool which enables the user to calculate the popularity of the inserted term and is used in this section to analyze the online US consumer trends. The method with which the number of searches is calculated is by dividing the number of queries for the keyword, by the total number of Google search queries. The results can be grouped geographically according to region, state, city or across time. They are updated on a daily basis.

There are inaccuracies which may occur (approximations and sampling issues) which have to be taken into consideration when the relative results are analyzed (http://whatis.techtarget.com/definition/Google-Trends).

A graphical representation for each keyword searched are presented and analyzed below.

Figure 111: «Construction» in the USA Empirically (2005 – 2015)
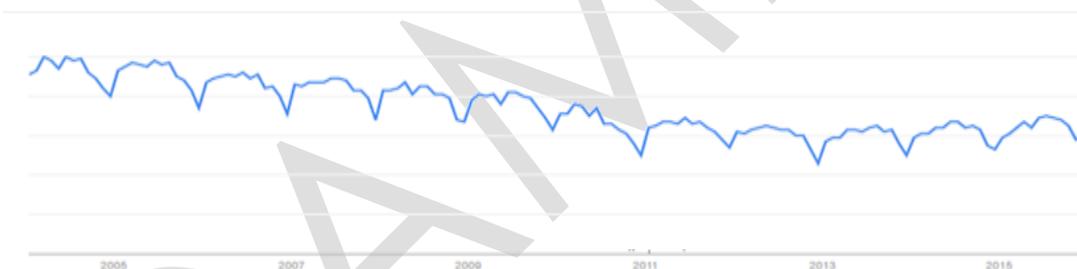
Source: Google Trends, 2015

The term «construction» presents an annual cycle which remains constant over the 10-year period 2005 – 2015. The majority of the searches for the key term «construction» are carried out during the summer months when construction activity is favored by the weather conditions. The overall trend for the term «construction» follows a linear decreasing trend, which since 2013 is starting to gradually recover, in coordination with the market itself.

When looking at the state map of the United States, «construction» is a prevalent term across the country. The majority of the searches have been done in the northern states such as Montana, North Dakota, Washington and Idaho, i.e. where the country shares its borders with Canada and is characterized by increased economic activity, exchange of labor and trade. Juneau and Anchorage in Alaska are cities where construction is also densely searched by the US citizens, indicating a signal of growth of the construction industry.

2015 US Construction & Building Materials