



ASCER

Spanish Ceramic Tile Manufacturers Association

US Industry Overview November 2022



The following is an overview of the U.S. Ceramic Tile Market in November of 2022.

Topics of discussion

- Industry Indicators
- US Floor Covering by Type
- The Market
 - Size
 - Import vs. Domestic
 - Imports by Country
 - Industry Mix of product type
 - Consumption by state
- Distribution
 - Channels & definitions
 - Company owned stores
 - Specification customers
 - Mega Distributors
- E-Commerce
- The Market by Channel and Segment
- Floor & Décor Strategy
- Private equity acquisitions
- Who and where to buy from
- US Manufacturers Capacity
- Current state of US Ports
- Trends
- Manufacturing Plant Information

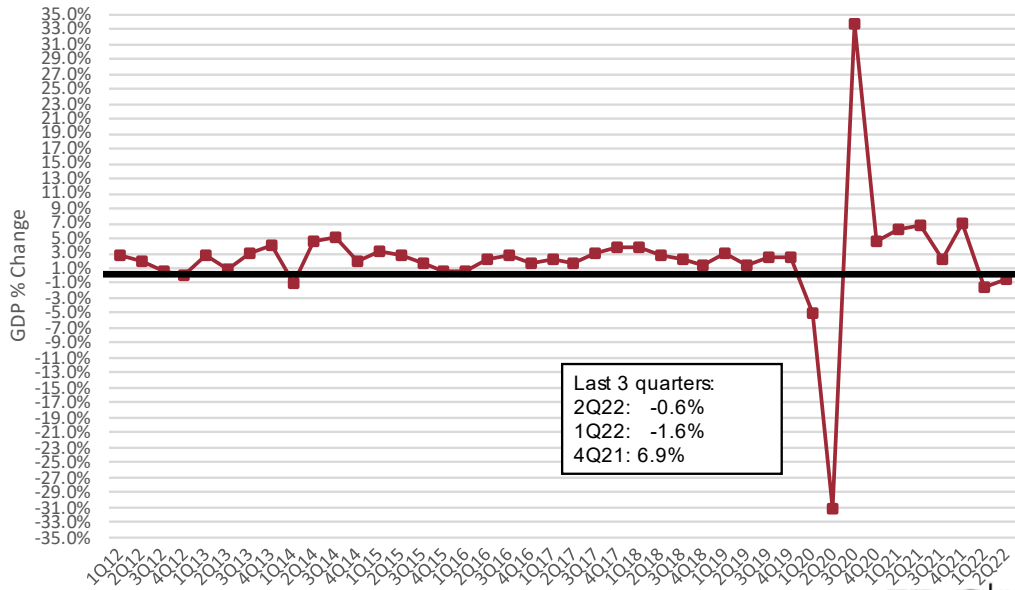
As you can see, there are a variety of different topics that we will discuss throughout the duration of this presentation. Topics include the current industry indicators, the U.S. floor covering by type, the market – the overall size of the U.S. market, in both volume and in dollars, import vs. domestic of what is consumed in the United States, imports by country, the industry mix of product type, and consumption by state. We will also review distribution including the channels and each one of those channel’s definitions, including company owned stores, specification customers, and mega distributors. We will review the status of the E-Commerce Market in the United States. We will then discuss the market by channel and segment as well as Floor and Décor’s strategy in the United States, where we have seen them become a disruptor to the market. We’ll also cover current private equity acquisitions, as well as who and where to buy from, which is many of the distributor’s questions within the United States. Lastly, we will touch on the U.S. manufacturers capacity, the current state of U.S. ports, the trends in the market, and manufacturing plant information.

Economic Indicators September 2022

The indicators as of June 2022.

U.S. GDP Growth

2 consecutive quarters of declining GDP is widely considered a recession, but there is no clear consensus



Source: Bureau of Economic Analysis (Real GDP). Prior quarters subject to revision. Seasonally adjusted annual rate

The U.S. gross domestic product, as you have seen, we saw negative growth in the first and second quarter. By definition a recession, however with the money supply the government has put into the economy consumers are not feeling it as they have historically.

GDP Global Comparison

Global economies all slowing in 2022; south Asian economies showing relative strength

% GDP Growth

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022E
Mexico	3.6	1.4	2.8	3.3	2.9	2.1	2.2	-0.2	-8.1	4.7	2.0
Italy	-2.8	-1.7	0.1	0.9	1.1	1.7	0.9	0.3	-9.0	6.6	2.3
Canada	1.8	2.3	2.9	0.7	1.1	3.0	2.4	1.9	-5.2	4.5	3.9
China	7.9	7.8	7.3	6.9	6.7	6.9	6.7	6.0	2.2	8.0	4.4
Brazil	1.9	3.0	0.5	-3.6	-3.3	1.3	1.8	1.4	-3.8	4.6	0.8
Spain	-2.9	-1.7	1.4	3.7	3.2	3.0	2.4	2.1	-10.8	5.1	4.8
Turkey	4.8	8.5	4.9	6.1	3.3	7.5	3.0	0.9	1.8	11.0	2.7
India	5.5	6.4	7.4	8.0	8.3	6.8	6.5	3.7	-6.6	8.9	8.2
Vietnam	5.5	5.6	6.4	7.0	6.7	6.9	7.2	7.2	2.9	2.6	6.0
Malaysia	5.5	4.7	6.0	5.0	4.5	5.8	4.8	4.4	-5.6	3.1	5.6
United States	2.2	1.8	2.5	2.9	1.6	2.3	3.0	2.3	-3.4	5.6	3.7
European Union	-0.4	0.3	1.7	2.5	2.2	3.0	2.3	1.9	-5.9	5.4	2.5
World	3.5	3.5	3.6	3.5	3.4	3.8	3.6	2.8	-3.4	5.8	3.5

Source: IMF World Economic Outlook update as of April 2022 — constant prices % change (updated semi-annually)

GDP Global comparison is something we look at with the specific countries that are importing into the United States and also those that have an impact on the United States Market as a whole.

Unemployment Rate

Unemployment continues to hover at low levels; almost every state is below 5%

Selected State Data	
<u>Better than average:</u>	
Virginia:	2.6%
Georgia:	2.8%
Florida:	2.7%
<u>Worse than average:</u>	
California:	4.1%
New York:	4.7%
Pennsylvania:	4.2%
Illinois:	4.5%
Texas:	4.1%
Michigan:	4.1%
<u>Other key states:</u>	
Ohio:	4.0%
New Jersey:	4.0%



Last 3 months:	
Aug 2022:	3.7%
Sep 2022:	3.5%
Oct 2022:	3.7%

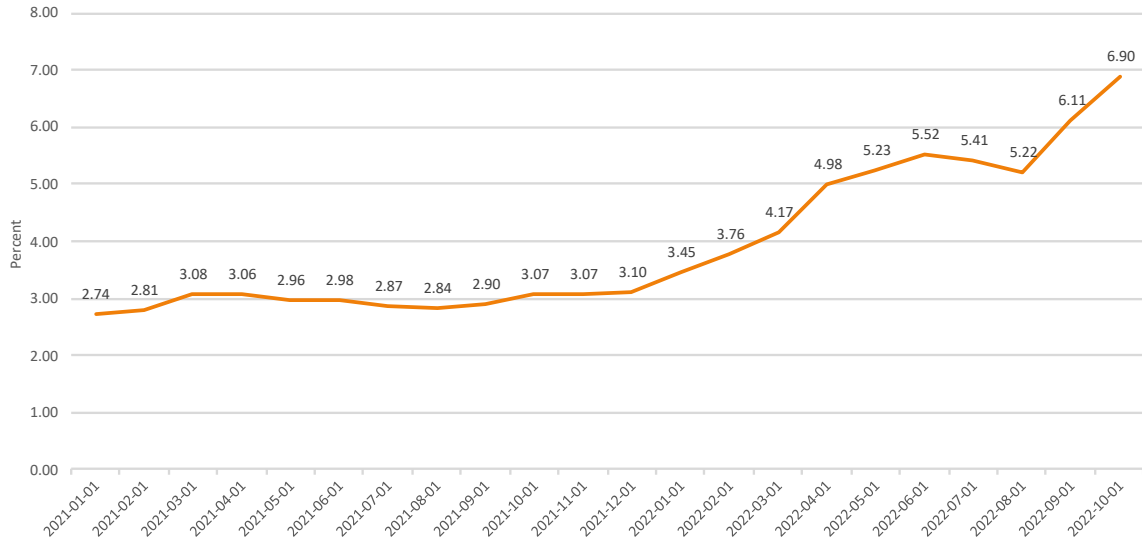


Source: Bureau of Labor Statistics

The unemployment rate is critical to the United States economy, as you can see in the above graph, this has been a tumultuous year and currently many states still suffer with trying to find workers.

Key Historical U.S. Interest Rates

Mortgage rates recently topped 6%, for the first time since 2008

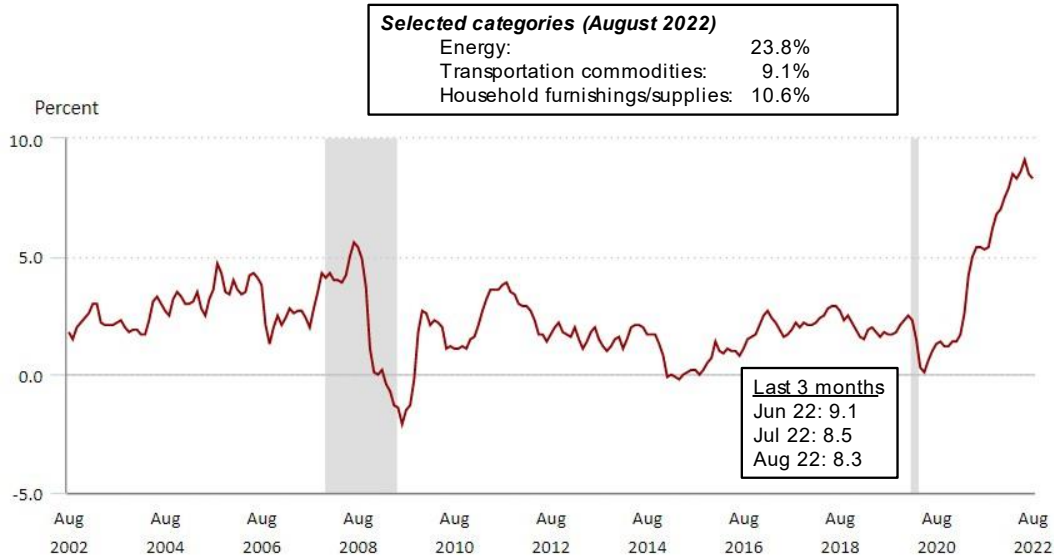


Source: St. Louis Fed (fred.stlouisfed.org)

Interest rates continue to soar in the United States, as the U.S. government tries to curtail inflation.

Inflation

Inflation remains above 8% but has slowed slightly; outlook uncertain as Fed aggressively raises rates

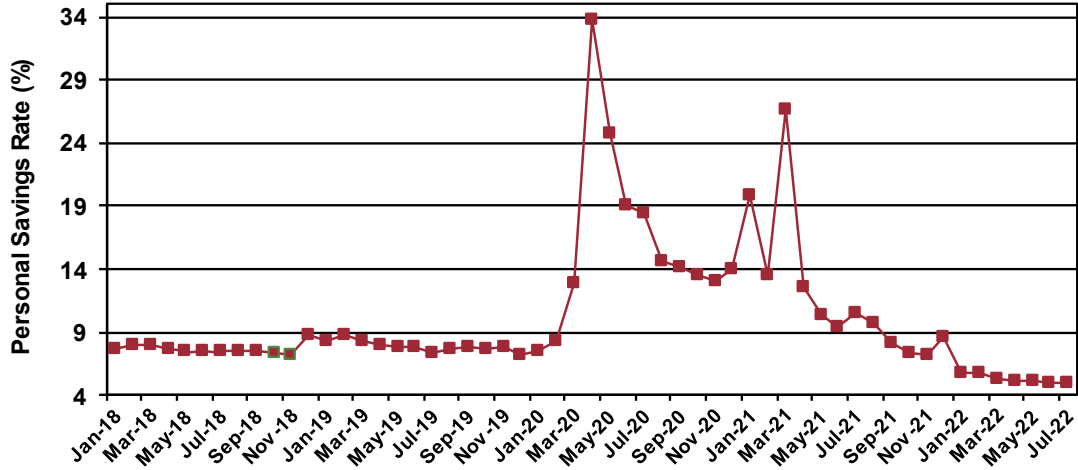


12-month percentage change, Consumer Price Index, not seasonally adjusted
 Chart/historical source: <https://www.bls.gov/charts/consumprice-index/consumer-price-index-by-category-line-chart.htm>
 Category source: BLS Economic Releases, CPI, Table 2

Inflation has risen above 8% s the Fed. aggressively raises rates, there are specific categories that impact this number. One being energy, two being transportation commodities and three being household furnishings and supplies. Increases in these segments work to compound the already steep increases we are seeing with inflation across the US economy.

Personal Savings Rate

Savings rates continue to decline slowly, as inflation puts a strain on disposable income



Source: Bureau of Economic Analysis, Monthly Personal Income and Outlays, Table 1: personal savings as a % of disposable pers
Prior months subject to revision.

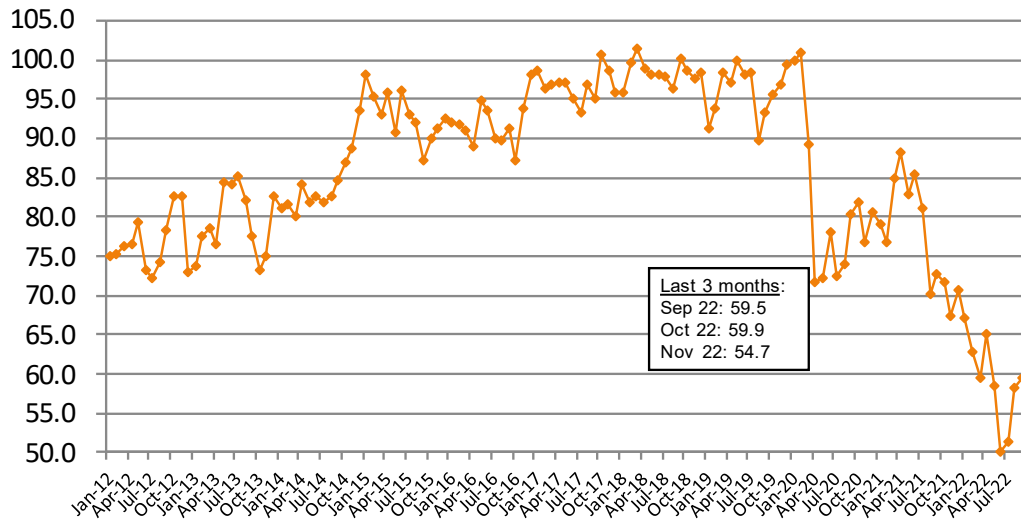
ona | income.



Personal savings rates have declined to the lowest since 2008 as consumers in the United States continue to spend without regard to record inflation. This in itself will impact the U.S. consumer over the next 1-2 years.

Consumer Sentiment Index

Consumer sentiment for the US fell to 54.7 in November of 2022, the lowest since July, from 59.9 in October and below market forecasts of 59.5



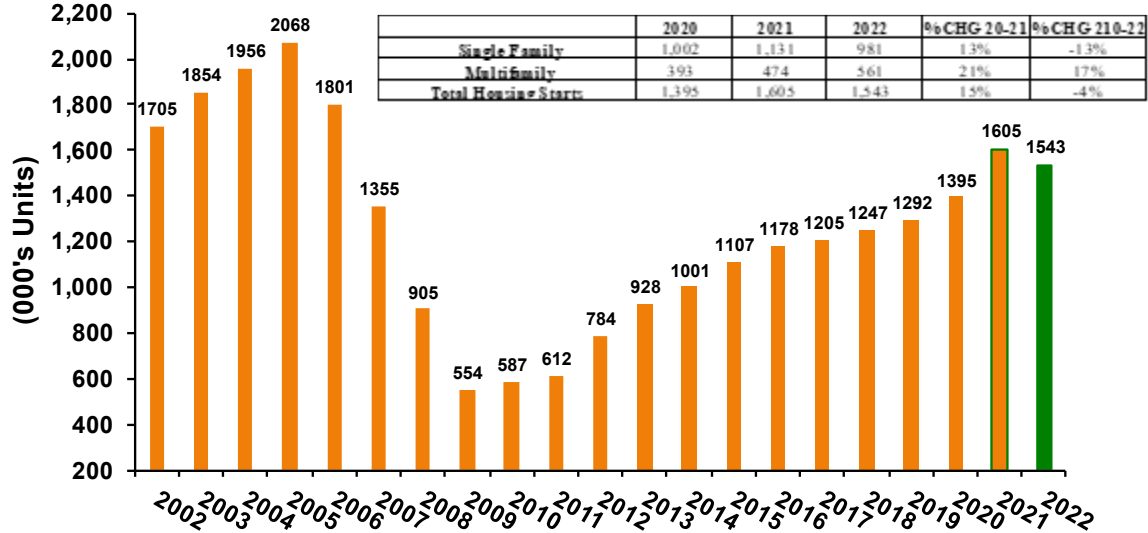
Source: University of Michigan Survey of Consumer Sentiment as reported in www.tradingeconomics.com
Previous months subject to revision

Consumer sentiment continues to fall and has hit a record low in recent months. Many people in the United States are focused specifically on gas prices as we have not seen this level of cost ever in our economy.

Residential Housing Economy / Residential Remodel

Annual Housing Starts

Latest projections show a decline in single family for 2022; multi-family expected to rise



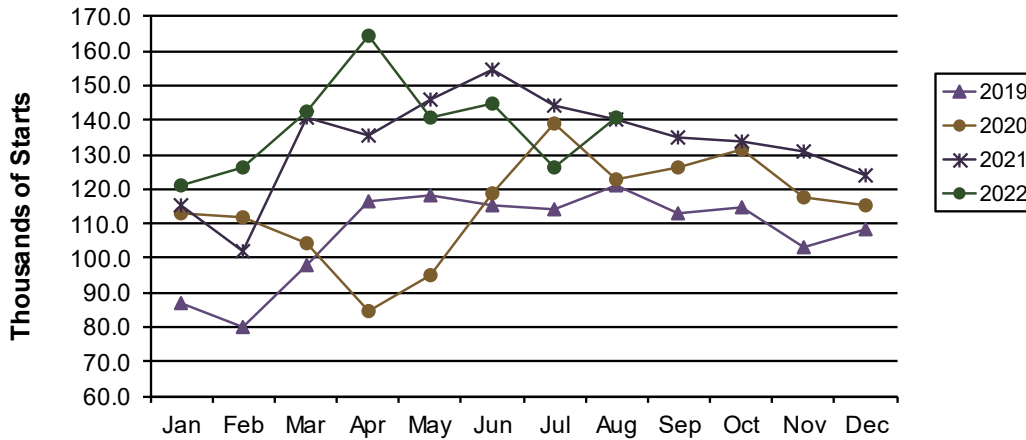
Source: NAHB Housing and Interest Rate Forecast (most recent update as of August 2022)



While the chart looks fantastic, we expect housing will start to decline with the fed raising interest rates. Notice in the chart above that we are nearing the peak of 2005 during which time the U.S. economy for a variety of reasons overbuilt new homes. This overbuild was followed by a significant decline that continued all the way to the great recession of 2008 and 2009.

Housing Starts– Seasonal Trend

Growth was 3% in Q2 vs same quarter last year, representing a slowing pace



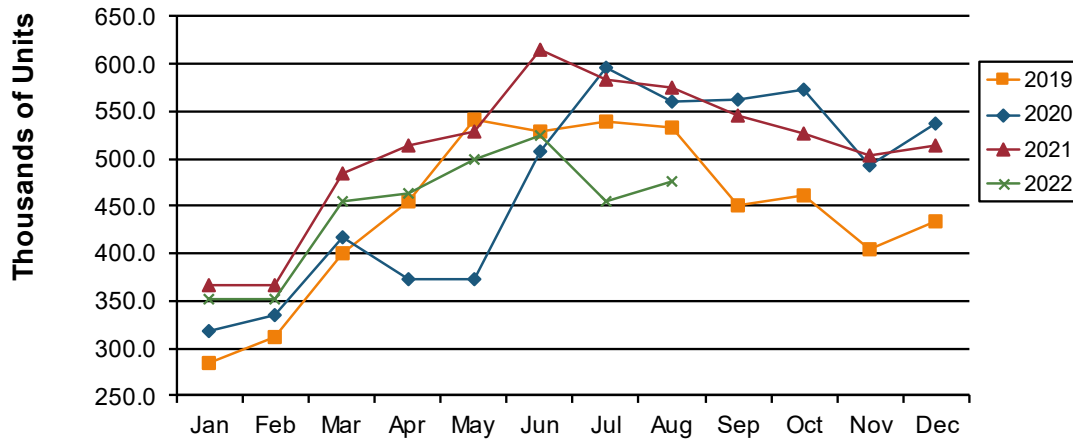
Starts (000's):	1Q	2Q	3Q	4Q	Total
2019	265.2	351.3	348.4	326.5	1291.4
2020	329.2	298.8	387.5	364.1	1379.6
2021	357.9	435.5	419.1	388.6	1601.1
2022	389.7	449.8			

Source: U.S. Census Bureau for historical figures; may differ slightly from other published annual figures

Housing starts seasonally is something we look at to see if we are above, at, or below the prior year. As you can see, 2022 is starting to dip below 2021 and we expect it to continue this downward trend, however maintaining high rates comparatively.

Existing Home Sales

After dipping sharply in July, August improved slightly



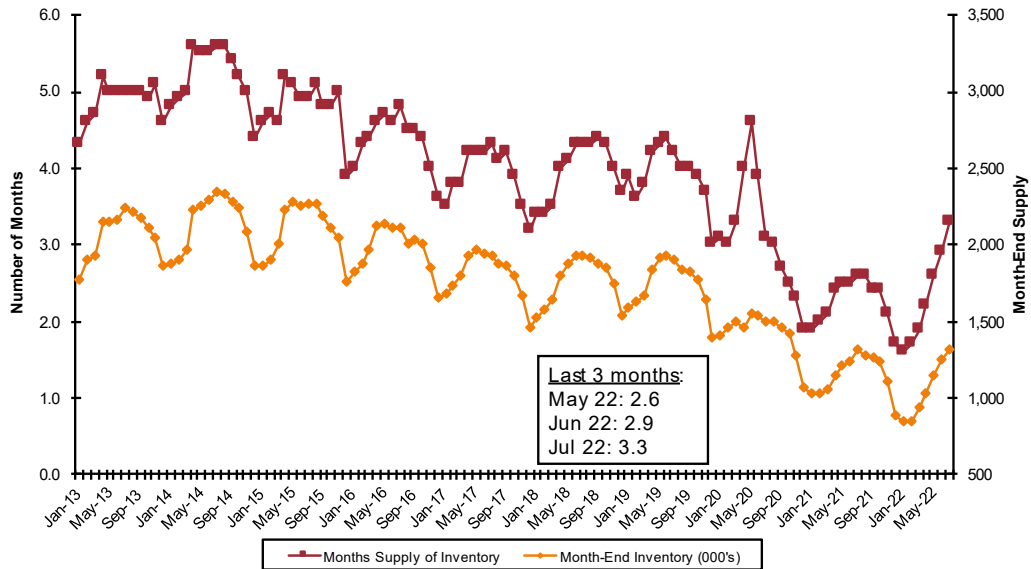
Sales (000's):	1Q	2Q	3Q	4Q	Total
2019	996	1526	1522	1300	5344
2020	1068	1252	1720	1604	5644
2021	1216	1656	1706	1542	6120
2022	1160	1487			

Source: Federal Reserve of St. Louis (fred.stlouisfed.org)

Existing home sales will decline further. As you can see, in 2022 we are still looking good, except this will decline and impact our residential remodeling numbers, as fewer existing homes are sold more and more people will not remodel homes.

Existing Home Supply

Inventory levels are beginning to increase following months of tight supply

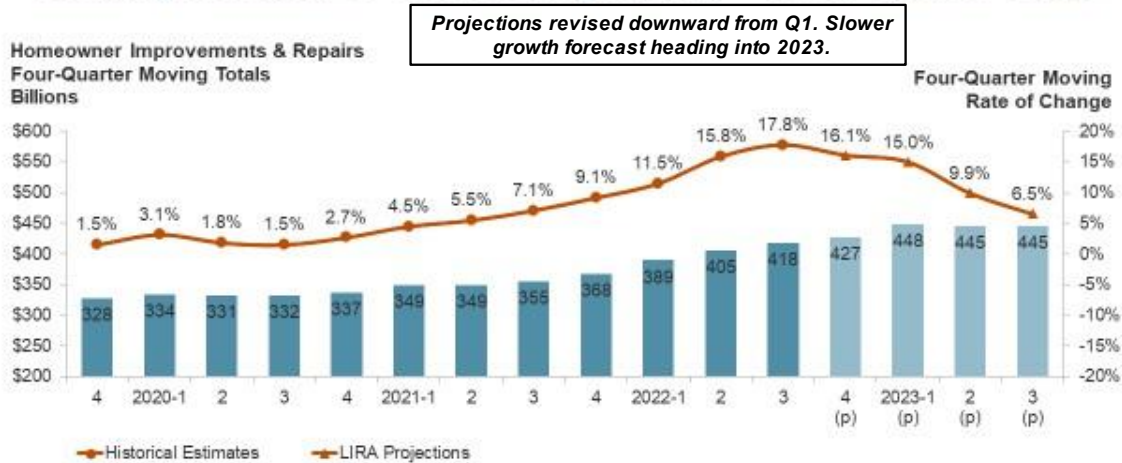


Source: Federal Reserve of St. Louis (fred.stlouisfed.org/series/HOSSUPUSM673N and [HOSINVUSM495N](https://fred.stlouisfed.org/series/HOSINVUSM495N))

The existing home supply in the United States is something we keep an eye on, and as you can see, has been significantly below a healthy 6-month mark for many years. The hope is that builders will want to rebuild inventory until they get to a point of the months' supply being at six months, however, this will be based upon the rate of new home sales and cost of inventory.

LIRA Remodeling Index

Leading Indicator of Remodeling Activity – Third Quarter 2022



Notes: Improvements include remodels, replacements, additions, and structural alterations that increase the value of homes. Routine maintenance and repairs preserve the current quality of homes. Historical estimates since 2019 are produced using the LIRA model until American Housing Survey benchmark data become available.

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Joint Center for Housing Studies of Harvard University JCHS

Factors in Harvard's LIRA Index:

- Pending home sales
- Building material shipments
- Contractor sentiment and hours worked

- Cash out refinancing data
- General economic indicators

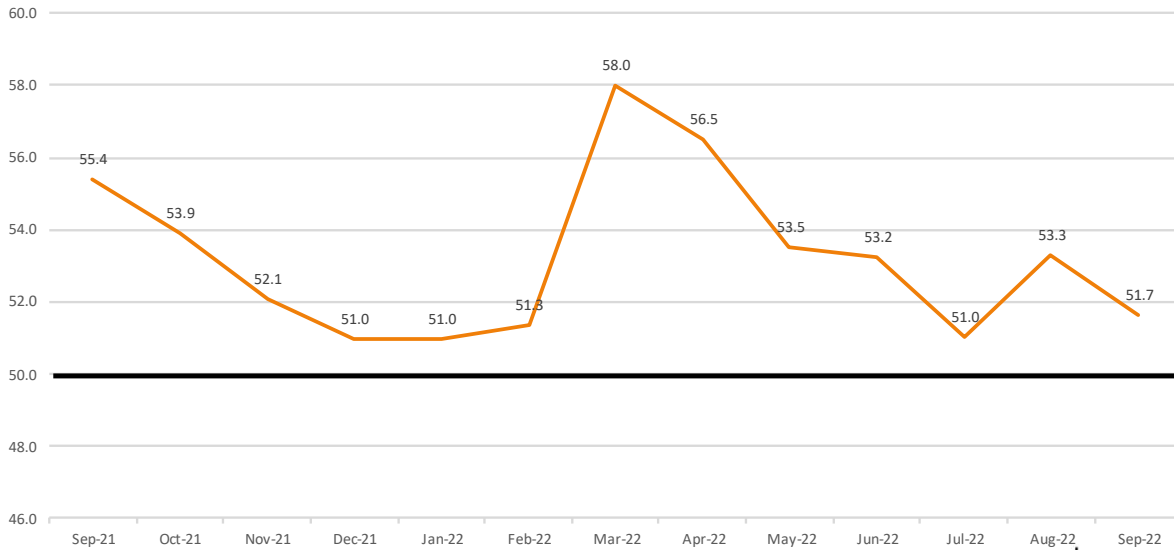


The Lira Remodeling Index is an indicator of remodeling activity going on in the United States that helps to capture remodeling activity being done by homeowners. One of the unforeseen factors that has happened over the past 2 years during the pandemic was that many U.S. homeowners received funds from the government, in addition they were told to stay home. This led to many Do-It-Yourself projects being done and remodeling being done by contractors in the residential home sector. While this was great for the economy at the time, many of these remodel projects have been pulled forward. There's no pent-up demand, as we say, but going forward the question remains to be seen if we will have the activity that we normally do because of all those projects that were going to be done in the future now having been done during the pandemic.

Commercial Construction Economy

Architecture Billings Index

ABI is a leading indicator of future construction activity (50 = no change from prior month)

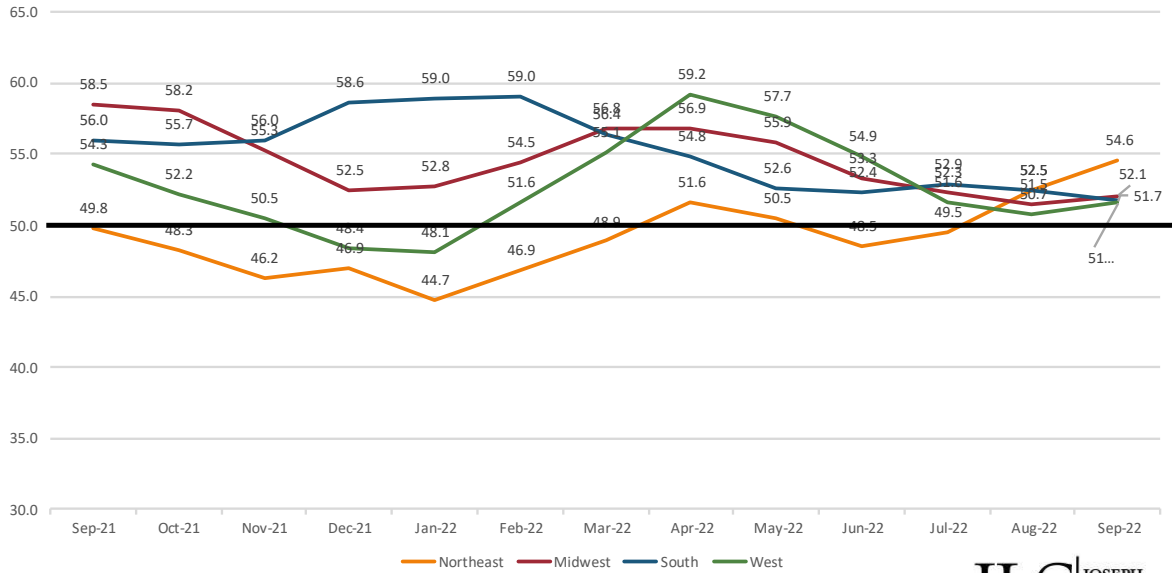


Source: American Institute of Architects (www.aia.org).
Prior months subject to revision
Inquiries numbers are approximate

We utilize the Architectural Billings Index, which is a simple number that architects report whether they have billed more, the same, or less than the previous month. Any number above 50 is a sign that we will see the commercial market growing. While we had a significant dip in this during the pandemic, we saw record levels of projects being planned, which shows us that the commercial market will be strong for the next 12-18 months.

Architecture Billings Index Regions

ABI is a leading indicator of future construction activity (50 = no change from prior month)

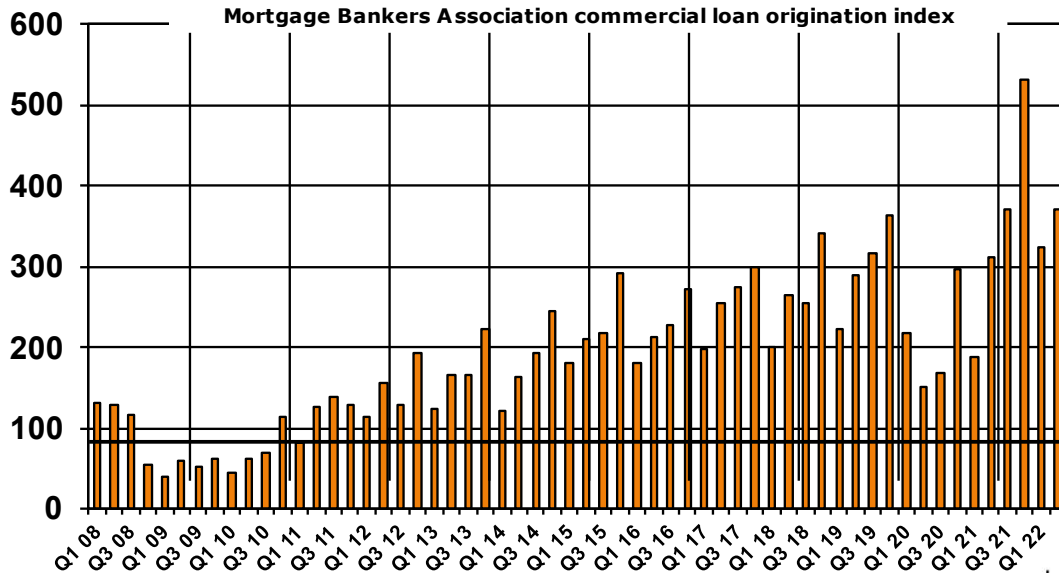


Source: American Institute of Architects (www.aia.org)

The ABI regional data breaks this down across the United States and shows in which specific markets architects were busy. This could mean the primary amount of that work is done in the actual market, however, some of these architectural firms do work across the United States, but it's generally a good indicator of that specific market.

Commercial Lending Market

Growth continued in Q2 2022 but commercial lending is expected to slow in the 2nd half



Source: Mortgage Bankers Assoc. (mba.org) Quarterly index: 2001 = 100.

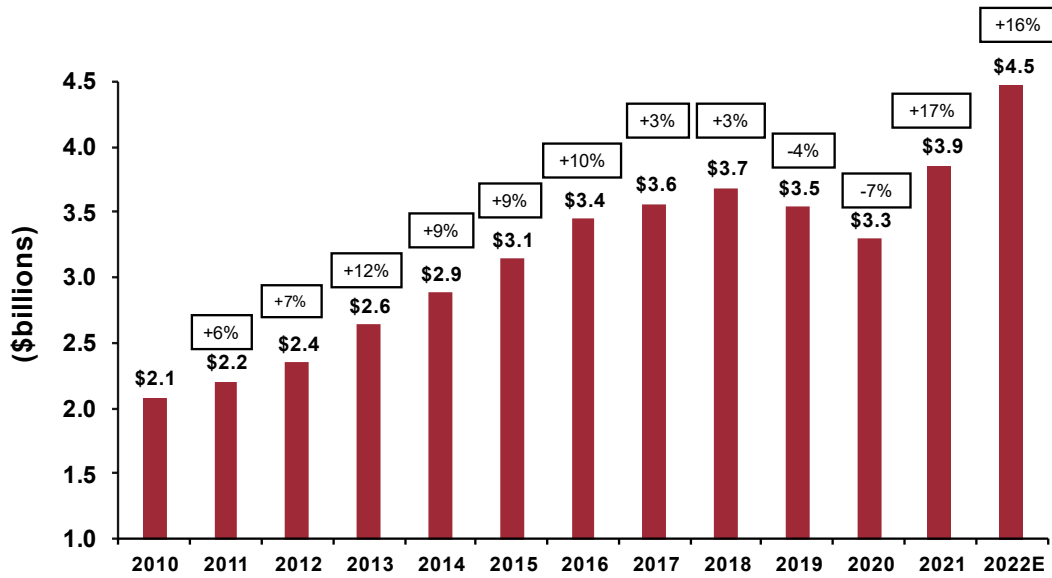
The key to the success of the commercial market is the commercial lending market. The Mortgage Bankers Association Commercial Loan index shows just how many loans are being executed for commercial work. As you can see, the U.S. economy is still strong through the first quarter of 2022, which means many projects are being funded.

Ceramic Tile Industry

The Ceramic Tile Industry.

U.S. Ceramic Tile Market (\$)

High inflation across the tile industry has caused abnormal market growth in dollar terms

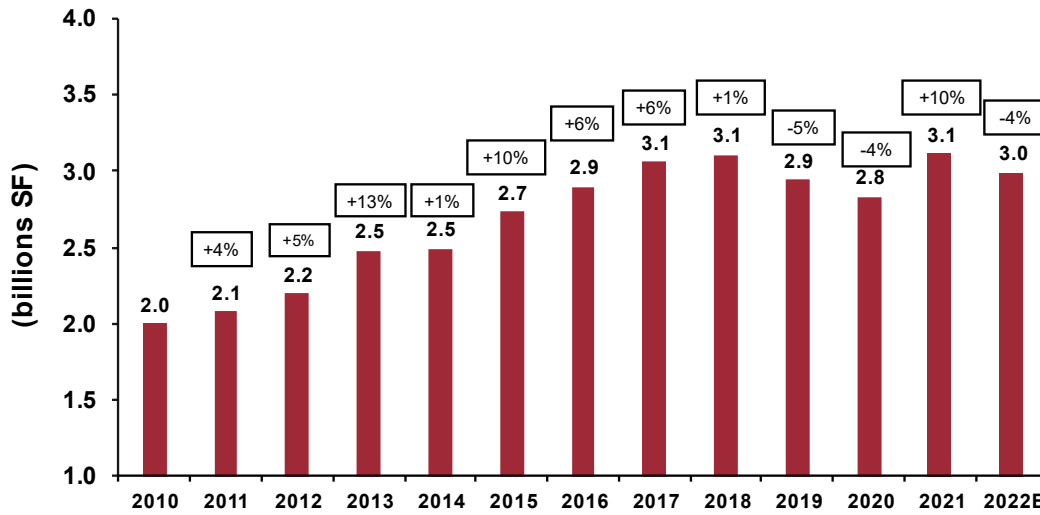


Source: Floor Covering Weekly, TCNA and internal estimates. Prior year data subject to periodic restatement

As you can see, 2021 was a great year in terms of volume, however, we saw a decline in 2022...

U.S. Ceramic Tile Market (SF)

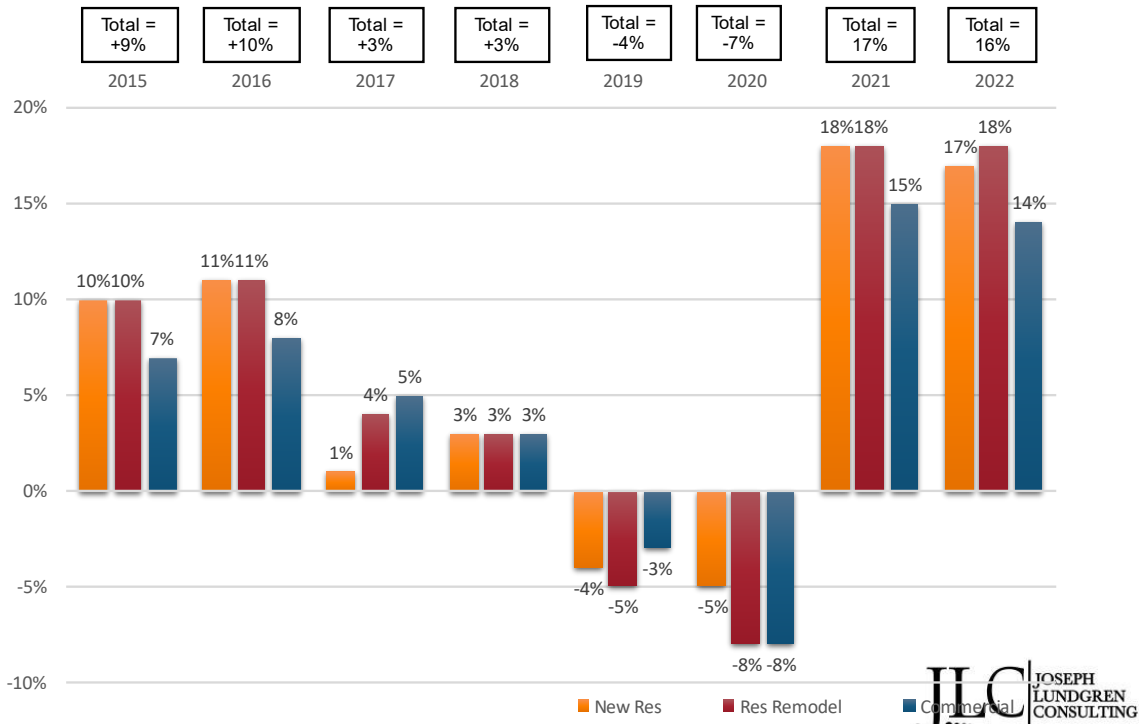
Volume has decreased slightly in 2022, in contrast to the inflation-fueled dollar growth



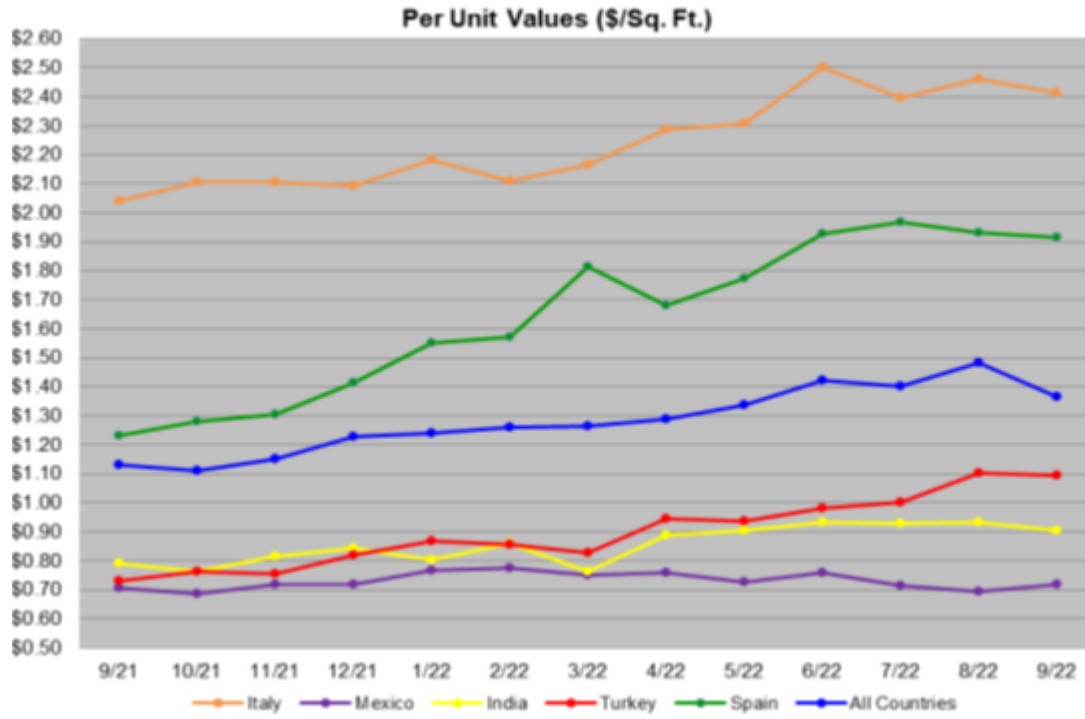
Source: Floor Covering Weekly, TCNA and internal estimates. Prior year data subject to periodic restatement

...And when you look at the U.S. Market in terms of the dollar, we see an increase, this being driven significantly by the higher prices both domestically and for imports, primarily imports.

U.S. Market by Segment in US \$'s

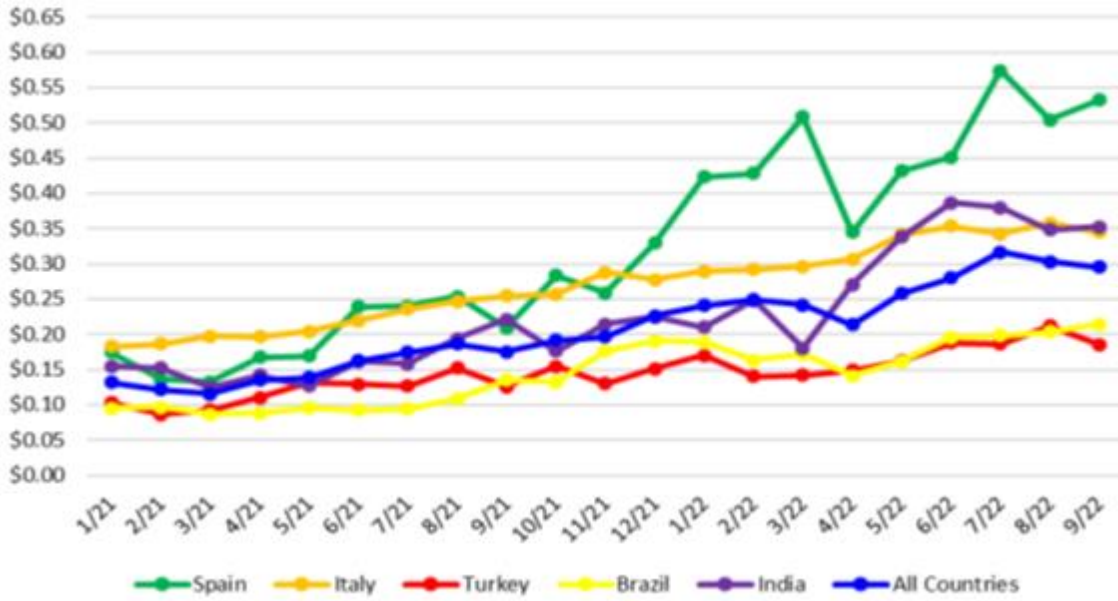


Note: Industry data from prior years is subject to periodic restatement.



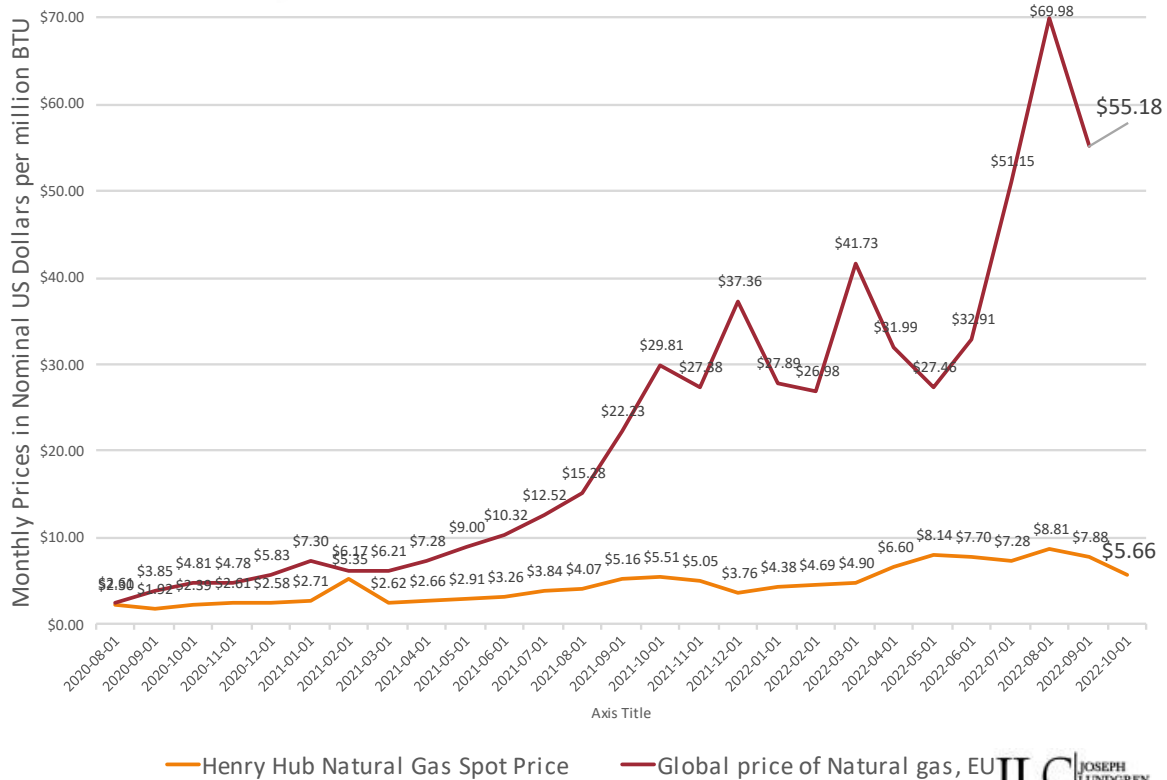
This show the increase the US has seen from imports specifically average selling price by country.

Insurance & Freight Costs/Sq. Ft.



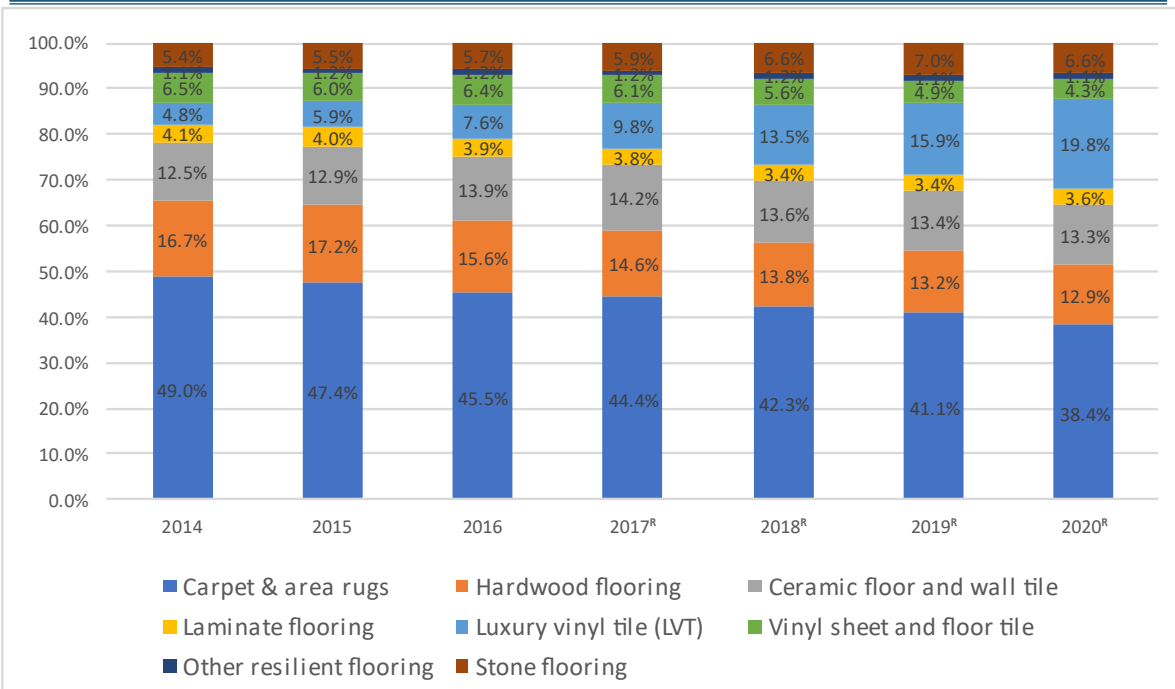
This graph shows the specific increases we have experienced by country for insurance and freight.

European compared to US Natural Gas Prices



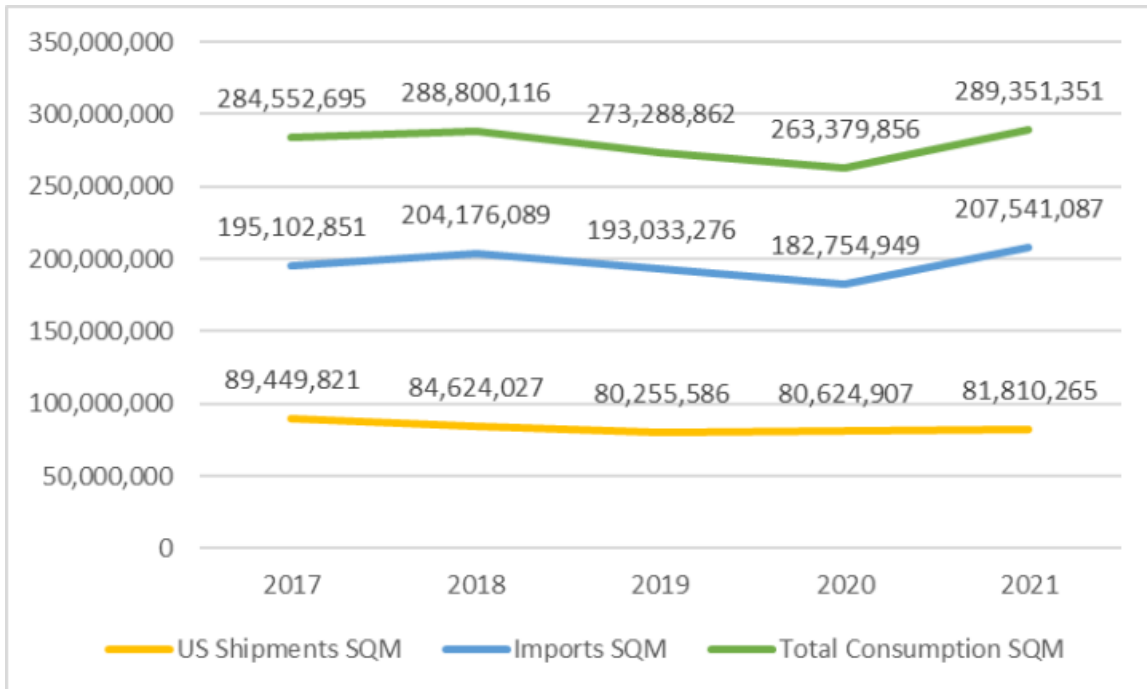
This graph depicts the cost of natural gas in the EU versus the US, hence showing the impact of rising costs in the EU. Keep in mind while the costs dropped in the EU, we expect those to increase as the EU uses the current supply they have built.

US Floor Covering by Type



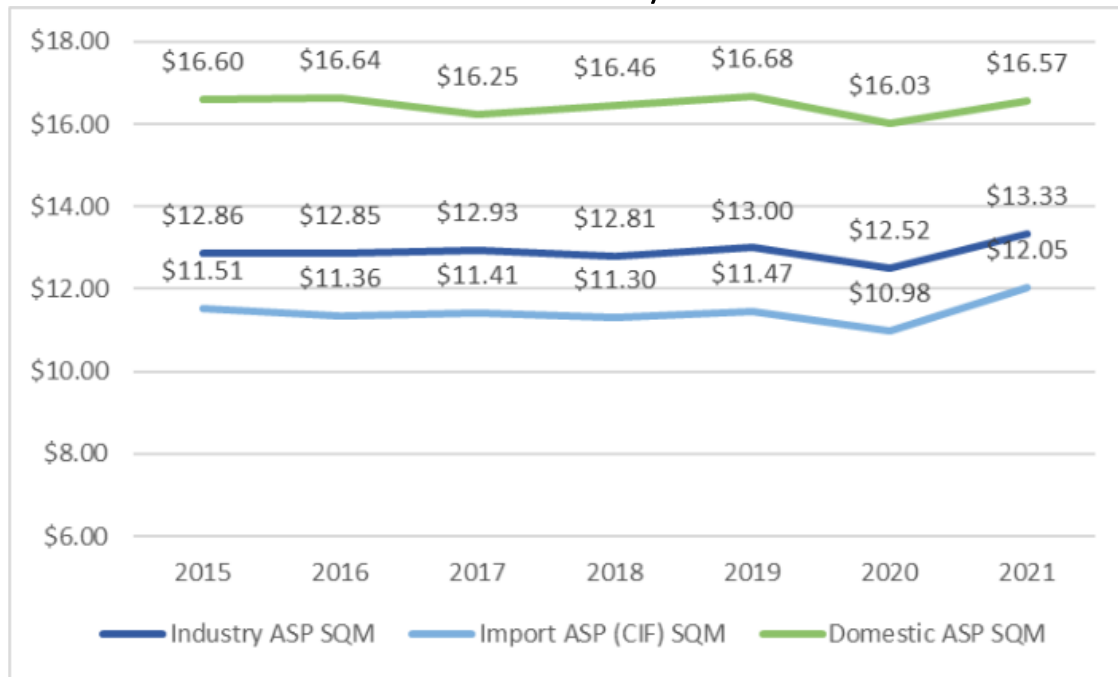
The U.S. Floor Covering by Type shows since 2014, the Ceramic Tile Market going from 12.5% to 13.3%, however, as many of you are probably aware, Luxury Vinyl Tile, well known as LVT, has grown significantly since 2014 to pass Ceramic Tile in 2019 as the second most popular floor covering in the United States. This is being driven by the lower cost of installation and not necessarily the product, but in addition, the promises of the manufacturers that it is waterproof and scratch resistant, which many consumers and commercial specifiers are learning is not actually the truth.

US Market Square Meters



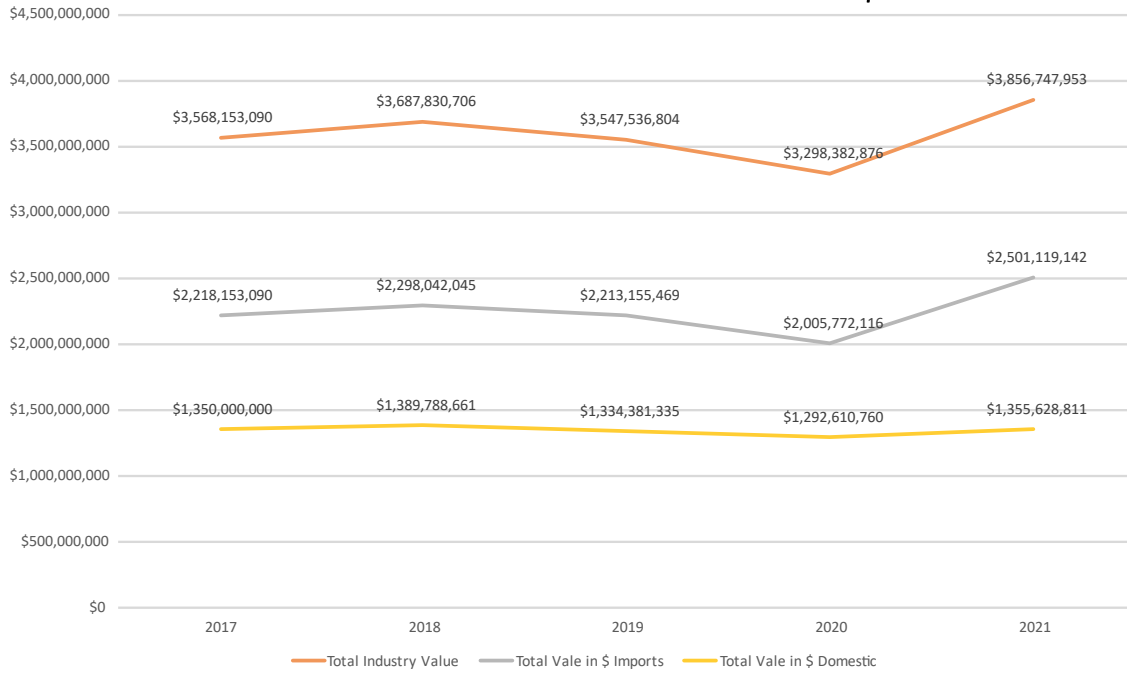
The U.S. Market in Square Meters as you can see, we've seen an increase in 2021 in both the domestic and imports.

Wholesale Industry ASP SQM



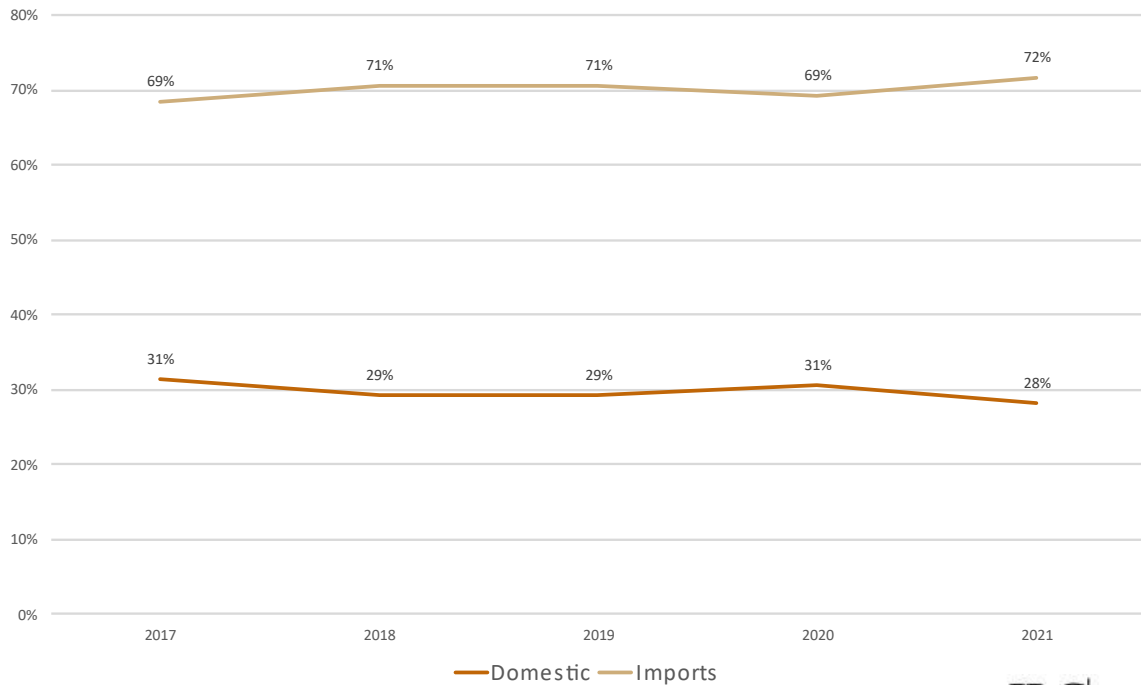
As stated earlier, the industry average selling price in square meters has significantly increased primarily on the imports which also includes the cost of insurance and freight and duty, therefore, driving it to an all-time high.

US Market in Wholesale \$'s



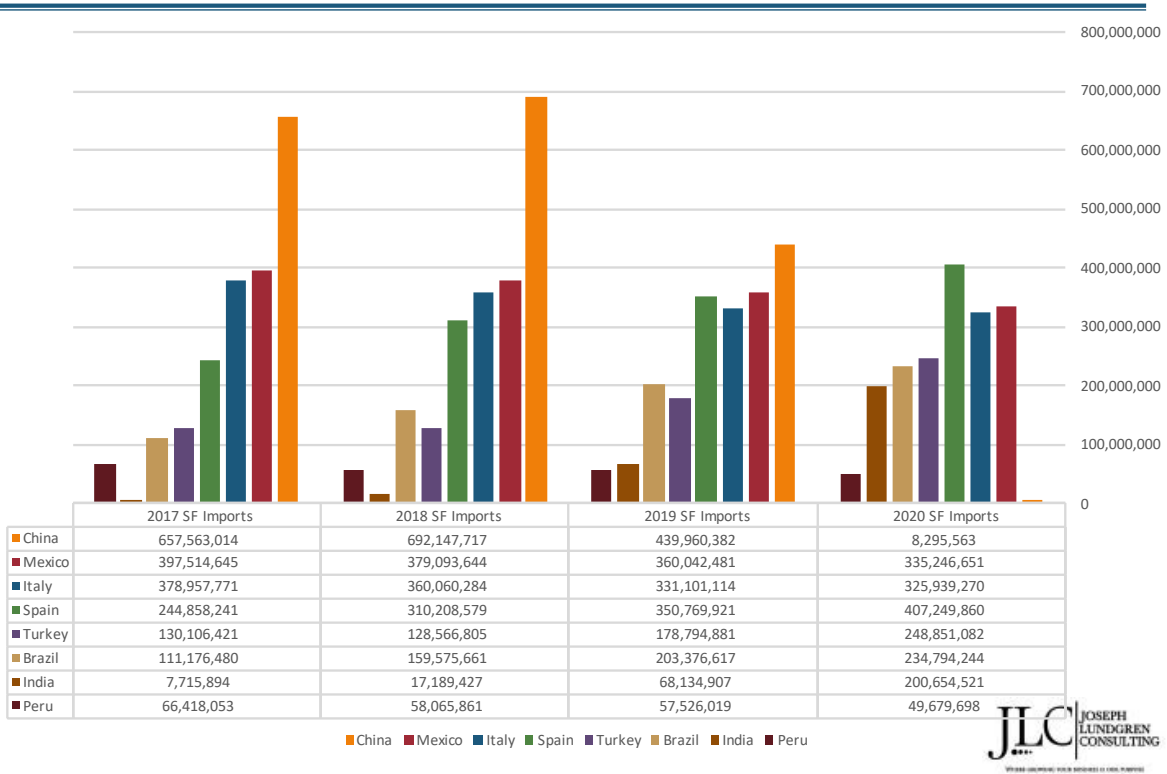
This, when in conjunction of volume, shows the wholesale market in the United States at 3.8 billion, a significant increase over 2020. Again, being driven by the higher average selling price.

Imports vs. Domestic



Imports vs Domestic. This is the current mix of consumption in the United States, which shows 72% of the U.S. consumption being imports and 28% being made domestically. The U.S. having only 11 plants (soon to be 12) does not have enough capacity to fulfill the consumers demand, therefore, imports will always be required in order to meet demand.

US Importers



After the decline of China as the main source of imports for the U.S. due to antidumping regulations, we saw Spain come out as a significant winner taking advantage of the lack of Chinese imports in the Market. Turkey and Brazil also made notable strides. India, a newcomer, has also made significant market gains.

The Industry Mix

2021 The Industry in SQM		
289,351,351		
Product Type	Mix Sold in US	SQM Volume
Glazed Porcelain	45%	130,208,108
Colorbody/Technical	20%	57,870,270
Red	17%	49,189,730
Wall	13%	37,615,676
Quarry/Mosaics	3%	8,680,541
Ceramic	2%	5,787,027
Total	100%	289,351,351

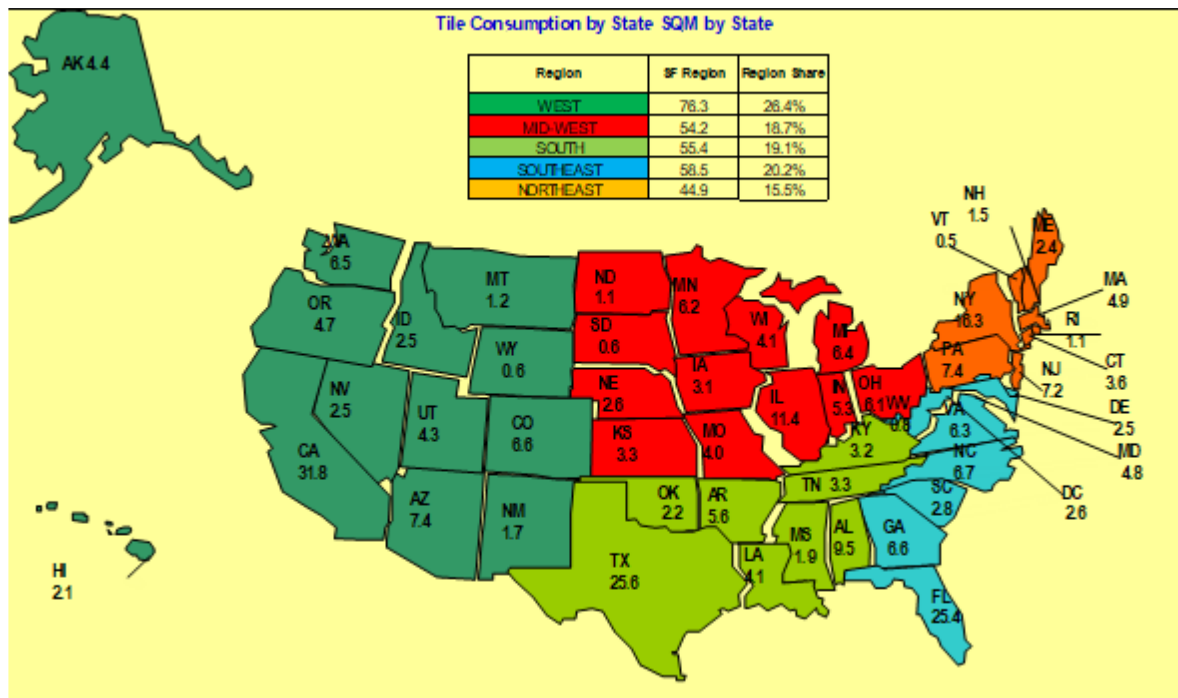
The Industry Mix, in terms of what type of product is sold in the United States, is broken down and shown that 65% of what is consumed in the United States is Porcelain. While Red at 17% may seem like a large number, it is primarily supplied out of Mexico and one plant in the United States for the builder market for entry level product.

Consumption by State

- The criteria to develop the consumption by state
 - Population
 - Construction forecast
 - New Housing
 - Residential Remodel
 - Commercial
 - Labor
 - State expenditures
 - Value of construction projects

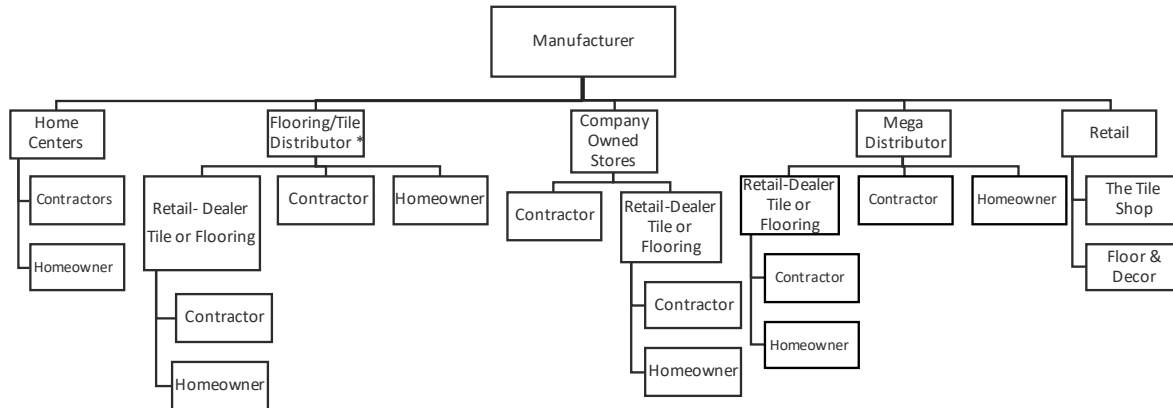
Consumption by State – the criteria to develop this involved many different factors including population, construction forecast – including new housing, residential remodel, commercial – labor within the state, the state’s expenditures, and value of construction projects.

2021 Consumption by State



The Consumption by State, shown here in square meters, shows It broken down by region as well as by state. As you can see California, Texas, and Florida are the three primary users of ceramic tile in the United States, however, sometimes this is referred to as the smile states. The smile states being when you look at a map of the United States starting from Washington through Oregon, California, Arizona, New Mexico, Texas, Louisiana, and up the Eastern Seaboard we consider that as the United States smiling at us and those are the largest consumption areas of ceramic tile.

US Tile Distribution Channels



* Includes Specification companies

The U.S. Distribution Channels are traditionally looked at, as three different channels: Home Center, the Distributor, and Company Owned Stores. However, as we've seen the distributors decline their share over time, some distributors are increasing. And it's the distributors who have large geographical footprints or are national. We'll talk more about that later, but that's what I refer to as a mega distributor. In addition, we have the Retail Channel, which I just put two different distributors, The Tile Shop and Floor and Décor. Obviously, Floor and Décor being the biggest portion of that. The reason I do not include them in with the Home Center Channel is because they market to the pro who influences the consumer while the Home Centers, which is Home Depot, Lowe's, and Menard's will market directly to the consumer. More to follow on that.

Definition of US Distributors

- There are five major distribution channels in the US ceramic tile market.
 1. Home centers - this is made up of the Home Depot, Lowe's and Menards. They are also known as big box stores and carry a wide range of products and market to the consumer.
 2. Flooring/Tile distributor- These are distributors that can vary in who they sell to, typically the distributor sells to the dealer and also to the contractor and homeowner (retail). The distinction between flooring and tile is as follows:
 - a. Flooring Distributor – initially carried all or most of other floor coverings except ceramic tile, over the past 25 years they have added ceramic into their mix.
 - b. Tile Distributor – typically carries only tile products and sells dealers, contractors and homeowners in some cases.
 - c. Flooring Dealer – buys from both Flooring Distributor and Tile Distributor. Also, will do installations (turnkey).
 - d. Tile Dealer – buys primarily from Tile Distributor and sells to contractor or homeowner, traditionally does not do installations.

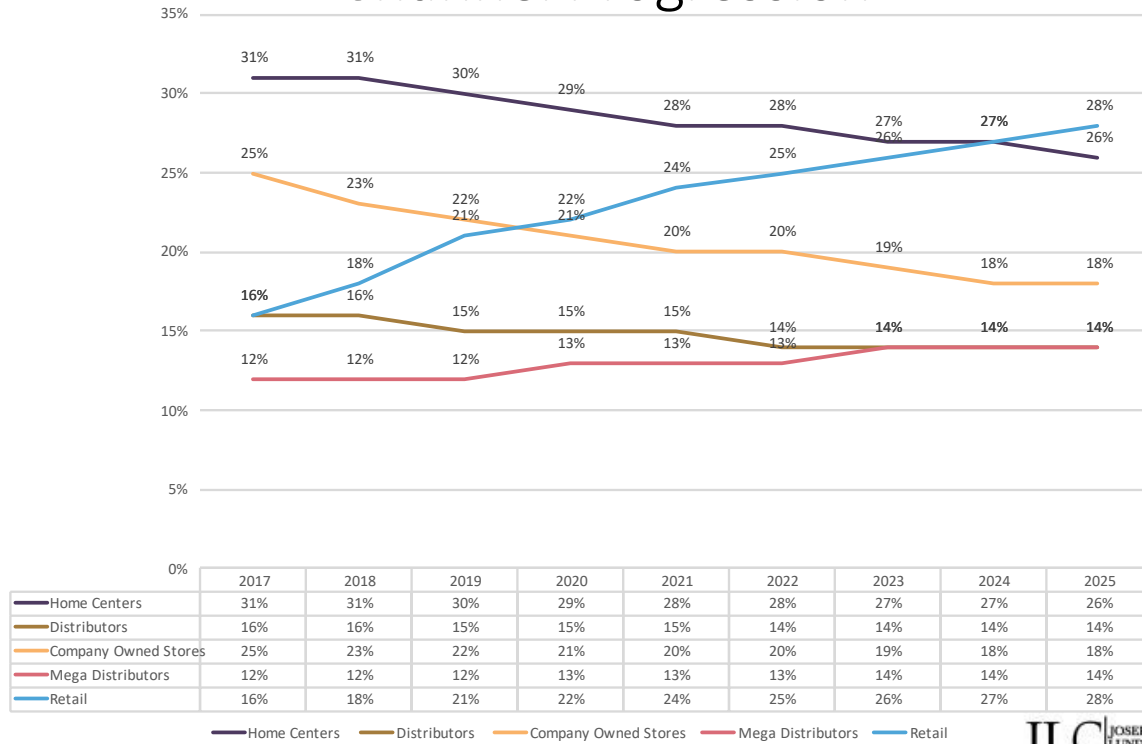
Those five distribution channels in the U.S. – Home Centers, as I mentioned, is made up of The Big Three: Home Depot, Lowe's, and Menards. Sometimes referred to as big boxes, these stores carry a large range of products, and they market to the consumer. The flooring or tile distributor – these distributors can vary in who they sell to, typically the distributor will sell to dealers and also to the contractor, homeowner, retail. The distinction between flooring and tile is very clear. The flooring distributor initially carried a lot of different floor covering products except for ceramic tile. Over the past 25 years they've added that into their mix whereas the tile distributor typically carries tile products and sells dealers, contractors, and homeowners in some case and then those dealers carrying the same name obviously do the same thing.

Definition of US Distributors

3. Company owned stores-these are manufacturers who have their own stores that typically sell wholesale only and target distributors, contractors, dealers and work with specifiers (architects and designers) in order to specify their tile for commercial and national account projects.
4. Mega distributors - these are typically nationally recognized distributors or have a strong regional footprint. sales are \$50 million plus.
5. Retail-this consists of two different distribution companies currently floor and decor and the tile shop. These are considered retail because they market primarily to the pro who influences the consumer. However, we do see Floor and Decor increasing their focus on advertising to the consumer.

Company owned stores are those that are manufacturers that have their own stores and typically sell wholesale and target distributors, contractors, and dealers. They typically have their own architectural teams. These are known as Daltile, Crossville, or Florida and more will be coming on them. Mega distributors is a term that JLC developed, and these are typically national recognized distributors or have strong regional footprints sales are typically fifty million or plus. Retail is the two customers I spoke about earlier and currently Floor and Décor and The Tile Shop.

Channel Progression



If you look at the Channel Progression of this back since 2017, and we can look at each one of these, the Home Centers has actually lost share and will continue to lose share primarily going to the retail side. While they still hold a very comfortable lead, they have lost share to those two distributors, specifically Floor and Décor. Distributors are also slightly losing its very difficult to discern, but as you can see as the distributors are losing the mega distributor is increasing. The company owned stores have also lost share because of their focus, primarily on builders and on large commercial contractors. And then the retail we see increasing because of the growth of Floor and Décor specifically.

Company Owned Stores

- While establishing distribution in the US specific markets can be identified as potential markets for company owned locations

Competitors	Locations
• Daltile	212 *
• Not included in above number	
• Stone Centers– 36	
• Design Galleries- 19	
• Porcelanosa	33 **
• Florida Tile	22
• Crossville Tile & Stone	27 ***
• Interceramic	12 ****

* Any existing AO and Marazzi stores are being consolidated into Daltile stores.

** Only foreign manufacturer with company locations

*** Crossville had 36 locations, but has closed some since acquiring DMJ Capco & Contempo

**** Only has a 25 MSF wall plant in Garland Texas (all floor is made in Mexico and imported)

Company owned stores consists mainly of Daltile, Porcelanosa, and a few other competitors. Up until recently, Porcelanosa was the only member of this list that has company owned stores and is also an overseas manufacturer. With Lamosa’s acquisition of Roca, they too compete in this space. Lamosa has several stores not included above numbers.

Specification Companies

- Platinum Equity
 - Happy Floors
 - Ceramic Techniques
 - <http://ceramictechnics.com/>
 - <https://www.platinumequity.com/paramount-global-surfaces>
 - Stone Source
 - <http://www.stonesource.com/>
 - <https://www.prnewswire.com/news-releases/platinumequity-portfolio-company-paramount-global-surfaces-acquires-stone-source-301515788.html#:~:text=LOS%20ANGELES%20and%20MIAMI%2C%20April,Financial%20terms%20were%20not%20disclosed.>
- Pantheon
 - <http://www.pantheontile.com/>
- Concept Surfaces
 - <http://conceptsufaces.com/>
- Spec Ceramics
 - <http://specceramics.com/>
- Autostone
 - <http://autostoneusa.com/>
- Creative Materials Corporation
 - <http://creativematerialscorpcom/>
- Nemo Tile
 - <https://www.nemotile.com/>

Specification Companies: are included with distributors. In the above listed companies, the first one is owned by a private equity group, Platinum Equity, they own Happy Floors, Ceramic Techniques, and Stone Source. Those two companies are specification companies, as well as the rest of these on this list. These are companies that primarily target commercial architects in large metro areas and go after large projects.

Mega Distributors Examples

- Bedrosian
- Emser Tile
- Longust
- MS International
- Arizona Tile
- Virginia Tile
 - ISC/RBC
- Happy Floors
- Shaw
- East Coast Tile/Bestile
- Anatolia
- JJ Haines
- Conestoga Tile
- Louisville
- Garden State
- D&B

These are some examples of mega distributors, which would include tile distributors and even some flooring distributors, and again these are just examples.

E Commerce

- While e commerce is growing it is important to understand that within the US the clothing and electronic industries are the prime categories sold and account for as much as 85% of e commerce sales
 - Clothing/Fashion = 46%
 - Electronics = 39%
- While the sale of ceramic tile is growing it is typically small quantities of backsplash or accessories.
 - A typical backsplash in the US is approximately 4 sqm
 - The material used is typically higher price and margin than the average
 - The higher priced material can absorb more of the freight cost
- Key Players
 - Consumers buy from who they are comfortable, therefore companies who have strong brand recognition are e commerce leaders.
 - The Home Depot
 - Floor & Décor
 - Lowes
 - These players support suppliers who stock and ship the material that is placed on their website
 - Merola Tile
 - MSI

E-Commerce is growing at a rapid rate in the United States but understand that most of the e-commerce sales is clothing, having to do with fashion and electronics. While we all hear ceramic tile is growing, it's typically small quantities of backsplashes and accessories. For example, a typical backsplash in the United States is only about four square meters. The material used is typically higher priced and a higher margin than the average, therefore, they can absorb more of the freight cost. You see this where some of the brand recognition of the consumers used to dealing with large companies, so they buy a lot through Home Depot, Floor and Décor, and Lowe's. These are supported by companies like Merola Tile and MSI.

E-Commerce

- Floor & Décor E-Commerce
 - F & D states that 16.1% of it's \$3.4B in sales are done via e-commerce
 - However, this includes ecommerce sales that are picked up at a store, which accounts for 90% of all their e-commerce sales
 - Over e-commerce sales shipped to a consumer's home account for approximately 1.6% of their sales.
- The key to e-commerce and the ceramic tile industry is logistics, since the product is so heavy it is difficult to generate a large direct consumer base without inventory across the US.

Floor and Décor states that 16% of its 3.4 billion sales are done via e-commerce. That number however includes the sales that are picked up at a store, which accounts for 90% of their e-commerce. So, e-commerce shipped to a consumer's home accounts for approximately 1.6% of their sales. The key to e-commerce in the United States is logistics. Since the product is so heavy it is very difficult to be competitive and ship it around the country.

E Commerce Players

- Rocky Pointe Tile
 - <https://www.rockypointtile.com/>
- Builddirect.com
 - <https://thefloorbox.ca/>
- Ocean Mosaics
 - <https://oceanmosaics.com/>
- Menards
 - <https://www.menards.com>
- Floor and Decor
 - <https://www.flooranddecor.com>
- Wayfair
 - <https://www.wayfair.com>
- Tiles Direct
 - <https://www.tilesdirect.net>
- Tile Bar– Soho Tile
 - <https://www.tilebar.com>
- Overstock
 - <https://www.overstock.com>
- Tile Store Online
 - <https://tilestoreonline.com>
- The Tile Shop
 - <https://www.tileshop.com>
- Tile Club
 - <https://www.tileclub.com>
- Home Depot
 - <https://www.homedepot.com>
- Lowes
 - <https://lowes.com>
- Belk Tile
 - <https://www.belktile.com>
- Stone and Tile Shoppe
 - <https://www.stoneandtileshoppe.com>
- Floorzz
 - <https://www.floorzz.com>

On these two slides – these are examples of additional companies that are large players in the e-commerce arena.

- Nemo Tile
 - <https://www.nemotile.com>
- The Builder Depot
 - <https://www.thebuilderdepot.com>
- Tile Estate
 - <https://tileestate.com>
- Perigold
 - <https://www.perigold.com>
- Houzz
 - <https://www.houzz.com>
- Build with Ferguson
 - <https://www.build.com>
- All Modern
 - <https://www.allmodern.com>
- Bedrosians
 - <https://www.bedrosians.com>

The Market by Channel/Segment

2021 Total Industry SQM

289,351,351

Segments		Segment Share SQM
New Home	37%	107,060,000
Residential Remodel	36%	104,166,486
Commercial	27%	78,124,865
Total	100%	289,351,351

Wholesale ASP SQM	Total Industry \$
* \$13.34	\$3,860,641,470

Segments		Segment Share \$
New Home	37%	\$1,428,437,344
Residential Remodel	36%	\$1,389,830,929
Commercial	27%	\$1,042,373,197
Total	100%	\$3,860,641,470

* Assuming ASP is equal in each segment

The Market by Channel & Segment is broken down further into new home, residential remodel, and commercial. For this example, the wholesale ASP is held consistent throughout each one. We measure the whole sale only because we cannot fully understand what the final margin is at every source. In other words, a homeowner may buy from a dealer who had a markup, the dealer may buy from the distributor who had a markup, and the distributor will buy from a manufacturer who also had a markup. In the case of Floor and Décor, you'll see later, it's bypassing all the middlemen so it's very difficult to get the retail number in terms of the dollar of the total industry, so this is all done by wholesale. The whole market in 2021 was about 37% new home construction, 36% residential remodel, and 27% commercial.

Home Centers by Channel/Segment

% Channel	HOME CENTERS
28%	81,018,378

Segments	Segment Share SQM	
New Home	10%	8,101,838
Residential Remodel	74%	59,953,600
Commercial	16%	12,962,941
Total	100%	81,018,378

Wholesale ASP SQM	% Channel	HOME CENTERS
\$13.34	28%	\$1,080,979,611

Segments	Segment Share \$	
New Home	10%	\$108,097,961
Residential Remodel	74%	\$799,924,913
Commercial	16%	\$172,956,738
Total	100%	\$1,080,979,611

So, you can see by segment the Home Center Channel at 28% of that about 10% is new home. New home in the Home Center Channel is typically what we call a spec home a builder will build one, two, maybe three homes. They'll buy all their goods at Home Depot possibly, Lowe's or Menards. The residential remodel is where they get a lot of their activity, with homeowners going directly in to purchase tile, either for DIY or with their contractor. Small commercial is also done through the home centers, but this is typically when somebody just needs to redo a floor in a small commercial building and it's not something that's put out through an architect or a designer so there's not plans drawn up.

Distributors by Channel/Segment

% Channel	DISTRIBUTORS
15%	43,402,703

Segments	Segment Share SQM	
New Home	22%	9,548,595
Residential Remodel	19%	8,246,514
Commercial	59%	25,607,595
Total	100%	43,402,703

Wholesale ASP SQM	% Channel	DISTRIBUTORS
\$13.34	15%	\$579,096,220

Segments	Segment Share \$	
New Home	22%	\$127,401,168
Residential Remodel	19%	\$110,028,282
Commercial	59%	\$341,666,770
Total	100%	\$579,096,220

Distributors, our traditional distributors are about 15% of the channel, with 22% being new home, 19% in residential remodel, and almost 60% commercial. This channel will vary by distributor. You could have these percentages at 60% residential remodel for some and only 20% in the commercial arena. This is the overall view of the market.

Company Owned Stores by Channel/Segment

% Channel	COMPANY OWNED STORES
20%	57,870,270

Segments	Segment Share SQM	
New Home	23%	13,310,162
Residential Remodel	12%	6,944,432
Commercial	65%	37,615,676
Total	100%	57,870,270

Wholesale ASP SQM	% Channel	COMPANY OWNED STORES
\$13.34	20%	\$772,128,294

Segments	Segment Share \$	
New Home	23%	\$177,589,508
Residential Remodel	12%	\$92,655,395
Commercial	65%	\$501,883,391
Total	100%	\$772,128,294

Company owned stores, as I said earlier, new home is 23% driven primarily by Daltile. Residential remodel is small in the overall mix and then commercial, again being dominated by Daltile also Crossville plays a big part in that, with 65% commercial.

Mega Distributors by Channel/Segment

% Channel	MEGA DISTRIBUTORS
13%	37,615,676

Segments	Segment Share SQM	
New Home	29%	10,720,468
Residential Remodel	13%	4,701,959
Commercial	59%	22,193,249
Total	100%	37,615,676

Wholesale ASP SQM	% Channel	MEGA DISTRIBUTORS
\$13.34	13%	\$501,883,391

Segments	Segment Share \$	
New Home	29%	\$143,036,766
Residential Remodel	13%	\$62,735,424
Commercial	59%	\$296,111,201
Total	100%	\$501,883,391

The Mega Distributors – very high in new home construction driven by Emser Tile based out of Los Angeles, who has 70+ locations across the U.S., therefore, driving a lot of the new home construction through their branches. About 13% is residential remodel and 59% commercial.

Retail by Channel/Segment

% Channel	RETAIL
24%	69,444,324

Segments	Segment Share SQM	
New Home	8%	5,555,546
Residential Remodel	75%	52,083,243
Commercial	17%	11,805,535
Total	100%	69,444,324

Wholesale ASP SQM	% Channel	RETAIL
\$13.34	24%	\$926,553,953

Segments	Segment Share \$	
New Home	8%	\$74,124,316
Residential Remodel	75%	\$694,915,465
Commercial	17%	\$157,514,172
Total	100%	\$926,553,953

And then lastly, very similar to the home center channel, the retail channel is a little bit less on new home. Very custom if they're doing new home. The residential remodel is 75% going through these two channels of what their business is estimated and 17% commercial.

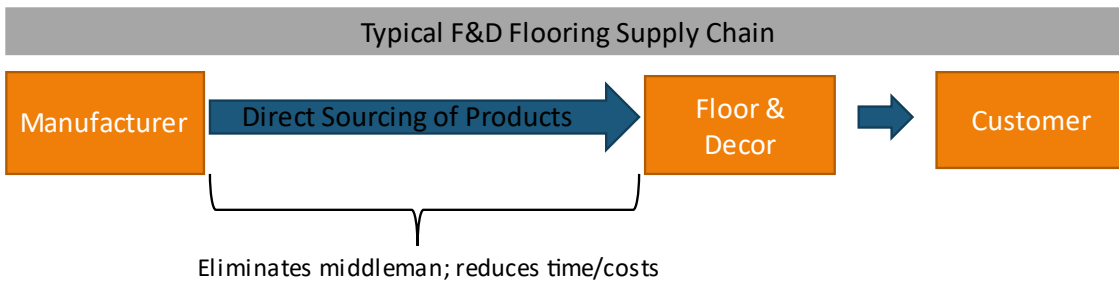
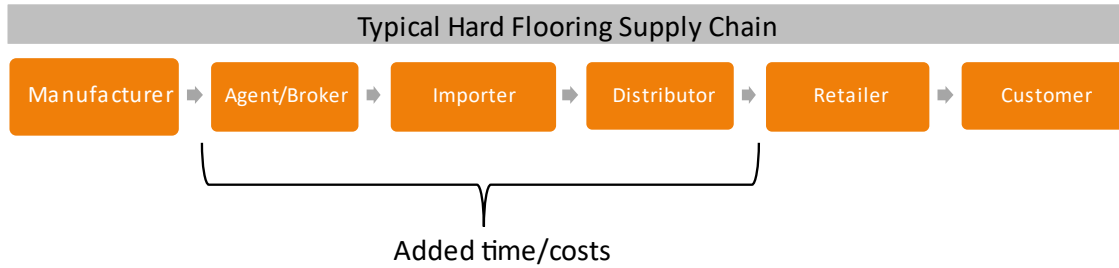
Floor and Décor Model/Strategy

- Typical Home Centers, Distributors and Company owned stores are not flexible.
 - When companies launch products and the supplier “goes south” they typically have to move these “inline products” to other suppliers which causes issues with supply, pricing, sampling, etc.
- F&D’s model is unique in that it is very flexible.
 - When a supplier “goes south” they can slide a new product into that space immediately after dispose of the inventory.
- Commercial Strategy
 - This strategy does advantageous in the commercial arena.
 - Architects and designers want products to stay inline/available after they specify the material, which could be years.
- Green Field and Acquisition
 - F&D has been building its commercial business by hiring regional sales managers focused on commercial
 - Typically, these are industry experts that have the relationships with the larger pro’s and can initiate switching specifications and value engineering projects with F&D’s existing product lines.
 - They have also made two acquisitions
 - Spartan Services
 - <https://www.spartansurfaces.com>
 - KRS, Inc.
 - <https://krsinc.com>

We spoke earlier about Floor and Décor, and just so you know their strategy, when companies launch products in the home centers, and let’s just say they have trouble with a supplier, we’ll call it they go south. In those particular cases it’s very difficult for them to move in line products, ones that are in the bay, to other suppliers. This causes issues with supply, pricings, sampling, timing. Floor and Décor’s model is unique in that it’s very flexible. When a supplier goes south, they can slide a new product in that space immediately after disposing of the inventory. In the last few years, they’ve really been focusing on the commercial strategy, and this is not typically advantageous in the commercial arena because an architect designer wants a product to stay in line. However, we do see them bringing in some specific lines that they are marketing commercially. In addition, they’ve been doing some greenfielding, which is building their own commercial business and acquisitions. Floor and Décor recently, and over the past two years, has bought Spartan Services, who then in turn bought KRS. These are very much like spec companies, but they were lacking in one product category and that was ceramic tile. With the addition of Floor and Décor’s access to multiple factories around the world, this has opened up the companies to market ceramic tile, along with their strongholdings of LVT, carpet, and other floor covering.



These are examples of some of the things you might see in an architectural library now, where they've developed their own folders for specific products going across all different types of floor covering.



Efficient supply chain allows F&D to offer low prices at attractive margins

Earlier I spoke about the channel, and as you see, typical hard flooring supply chain management. This is hard flooring for any type of tile distributor or even hardwood or any kind of solid surface. As we say in the United States there's the soft side, which is carpet, and the hard side, which is pretty much every other floor covering. In some of those cases, you could have an agent or a broker in the middle, an importer, a distributor. Floor and Décor's chain is straight from the manufacturer straight to their stores to the customer. It eliminates the middle man, reduces times and cost and, therefore, allows them to offer very low prices still at attractive margins.

Private Equity Acquisitions

Company	Companies Owned/Have Owned	Seller
Harren Equity Partners	Virginia Tile	Bill Stephenson, Sr., President, Virginia Tile
Linsalata Capital Partners	Use to Own HF & CTL	Happy Floors
		Ceramic Techniques
BluePoint Capital	Tierra Sol Ceramic Tile	Ironbridge Equity Partners, Signal Equity Partners, Penfund
Hig Capital	Empire Today	Empire Today Management Team; Kevin Weinberger, CEO
Mandarin Capital	Italcer	Alberto Forchielli & Graziano Veronesi
Palmares Capital	Specialty Tile	
Sterling Group	Artisan Design Group	Dunes Point Capital
LVC LongueVue Capital	Tilebar	Eli Mechlovitz, Founder and CEO of Studio Corp. and TileBar
Blackstone	Interior Logic Group	LittleJohn & Co.
	Residential Design Services	Select Interior Concepts, Inc.
Sun Capital Partners	Select Interior Concepts	SIC Shareholders
	Pacifica Wholesale Tile & Stone	
Shawn Phillips	Kaiser Tile	Ralph Kaiser

The private equity acquisitions are a high level look at some of the activity we have seen in the United States, with some of the companies being purchased by private equity groups. This has largely been driven by firms assumption that by adding all these different companies to their portfolio, it allows them to then build the business and sell at eventually a higher multiple.

Private Equity Acquisitions

Company	Companies Owned/Have Owned	Seller
Platinum Equity	Happy Floors	Linsalata Capital Partners
	Ceramic Techniques	Linsalata Capital Partners
	Stone Source	Investors led by Founders Equity
Saw MilCapital	Nemo Tile	Matt Karlin, President and CEO of Nemo
	Versatrim	Shareholders of Versatrim
	Rasafloors	Michael Rasa, Founder and CEO
	Tile Market of Delaware	Watson Family, John & Tim
The Baupost Group	Surfaces, Walker Zanger, Opustone	Jeff Lupica, acting General Manager of Walker Zanger; Eric Schigiell, President Opustone
Charlesbank Capital Partners	Empire Today	HIG Capital
Paceline Equity	AHF	American Industrial Partners
Graycliff	Stone Source	Founders Equity
Ten Oaks Group	Togama SAU	Fluidra
ShoreView Industries	Crown Products	WILsquare
WILsquare	Used to own Crown Products	
Mill Point Capital	Cancos Tile & Stone	Management Team, including Valya Fa

Distributors are asking Who and Where to buy Tile?

- Who to buy from?
 - Since the advent and improvements of ink jet and its increased use companies can easily duplicate other manufacturers products, therefore distributors rely upon their current suppliers.
- Where to buy from?
 - This is the more difficult question
 1. Logistics
 2. Service
 3. Pricing/Exchange rate
 4. Quality
 5. Innovation

Distributors today, who and where do we buy tile from? With the improvement of inkjet over the years, and it's been around for 20 years, companies use this to easily duplicate other manufacturers' products, so therefore, distributors rely a lot on their current suppliers when new looks come out. When I get the question of where to buy from, this is the most difficult question because we look at logistics, service, price and exchange rate, quality, and innovation. Currently, logistics being the key aspect because freight causing the increase in the average selling price, typically on imports.

Current US Floor Manufacturing Plants

	Company	Parent Company	City	State	Total Capacity (SQM)	% of US Capacity by Plant	% of US Capacity by Company
1	Landmark/Atlas	Gruppo Concorde	Mt. Pleasant	Tennessee	4,646,840	4%	4%
2	DaTile	Mohawk	Muskogee	Oklahoma	17,193,309	14%	44%
3	DaTile	Mohawk	Dickson	Tennessee	8,364,312	7%	
4	Florida Tile	Panaria Group	Lawrenceburg	Kentucky	6,505,576	5%	5%
5	Del Conca	Del Conca, SPA	Loudon	Tennessee	6,040,892	5%	5%
6	Crossville	Curran Group	Crossville	Tennessee	8,364,312	7%	7%
7	Milestone/Florida	Florim, SPA	Clarksville	Tennessee	13,940,520	12%	12%
8	Stonepeak	Fiandre RIS, SPA	Crossville	Tennessee	11,431,227	10%	10%
9	Marazzi	Mohawk	Sunnyvale	Texas	19,516,729	16%	
10	Marazzi	Mohawk	Florence	Alabama	7,434,944	6%	
11	Wonderful Porcelain Group	Wonder Porcelain	Lebanon	Tennessee	9,665,428	8%	8%
12	Portobello America- Q2 2023	Portobello Brazil	Baxter	Tennessee	5,576,208	5%	5%
			Total SQM Capacity		118,680,297	100%	100%

* Including Portobello plant to be completed Q1 2023

The current U.S. Floor Manufacturing plants is made up of 11, soon to be 12, when Portobello comes online, which is expected to be the first quarter of 2023. The total capacity by plant is estimated and how much each one of those plants make up of the market you can see the yellow highlighted encompasses 4 plants which are all Daltile or Mohawk owned plants and they have approximately 44% of the capacity in the United States.

US Manufacturing

- US Wall plants
 - Dal-Tile – El Paso Texas
 - Interceramic– Garland Texas
 - Only utilizing approximately 50% of capacity

US Capacity	
* Total Floor SQM Capacity=	118,680,297
Dal-Tile Wall El Paso Capacity =	8,364,312
Interceramic Wall Garland Capacity =	2,323,420
Total Floor + Wall Capacity =	129,368,030
US Market in Square Meters =	289,351,351
US Capacity of Total US Market =	45%

* Including Portobello plant to be completed Q1 2023

- If all US Capacity is running at 100% the US can only fulfill 45% of demand

There are two wall plants in the United States, Daltile’s El Paso plant and Interceramic’s Garland, Texas plant, which currently is only operating at about 50% capacity. If all the U.S. capacity is running at about 100% the US could only potentially service 45% of the demand. This means that without a doubt imports are always going to be needed.

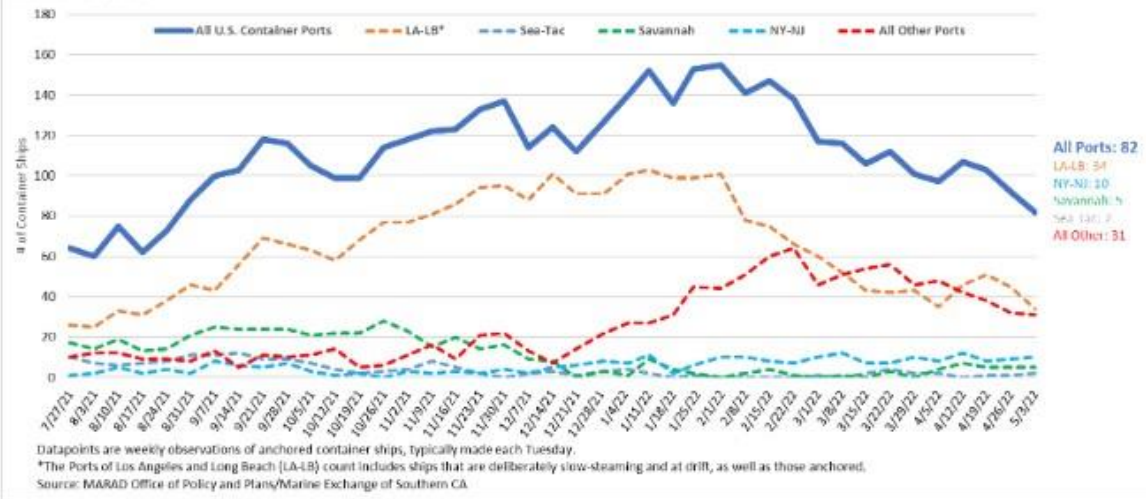
Current Status of U.S. Ports

- Congestion at ports continues to slow the flow of record-breaking containerized imports into the United States.
- U.S. Ports imported nearly a half percent more in the first quarter of 2022 than during the first three months of the last year.
- The Ports of Los Angeles, Long Beach, and New York/New Jersey, collectively the top 3 for container volume to the U.S., imported 260,000 more containers in March versus February—a 12% increase and the alltime highest month for the Port Authority of New York and New Jersey.
- While trucking and roadway logistics have steadily improved, rail service has continued to break down in the first quarter of 2022 leading to record breaking waits for longdwelling rail containers. This largely in part to trains spending more time delayed at terminals.

Lets consider the current state of U.S. ports. We know that the U.S. ports are not as efficient as some around the world, and while the ports continue to process record breaking imports into the United States, the ports of Los Angeles, Long Beach, New York/New Jersey collectively the top 3 for container volume in the U.S. imported about 260,000 containers more in March versus February, a 12% increase in 2022. While trucking and roadway logistics steadily have improved, rail service continues to breakdown in the first quarter of 2022. This is leading to long dwelling at rail yards and this, in turn, is the break down in extended supply chain that we are experiencing in the United States.

Container Ships Awaiting Berths at U.S. Ports

Jul. 2021 - May 2022



The total number of container ships waiting for berths at U.S. ports has dropped by 47% since peaking in early February, even as containerized imports increased sharply in March for most U.S. ports.

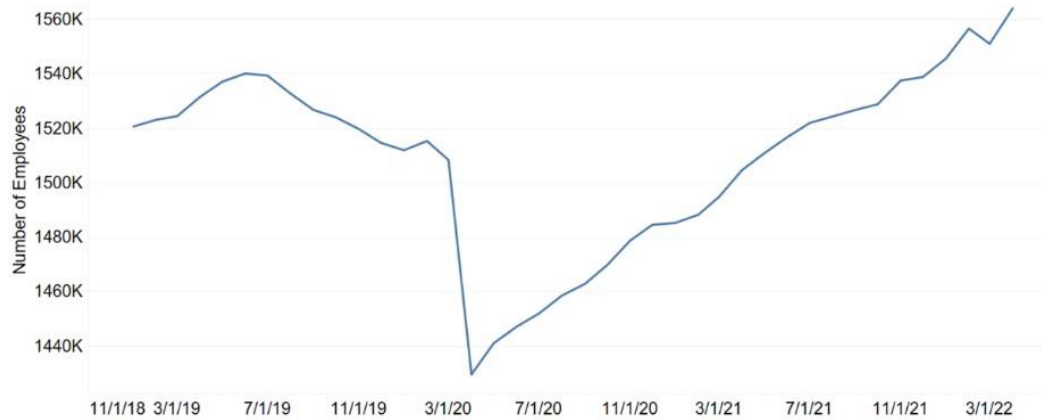


The total number of container ships waiting for berths has dropped 47% since peaking in early February 2022, even as imports increased sharply for March.

As of April 2022, the trucking industry has recovered more than 50,000 workers since one year earlier and sits at around 40,000 higher than at start of the pandemic.

Truck Transportation Employees on Non-Farm Payroll (Seasonally Adjusted)

Data through April 2022



Note: Data in this chart represent wage and salary workers only, and exclude owner operators and independent contractors.

Source: U.S. Bureau of Labor Statistics - Current Employment Statistics (CES)

As of April 2022, the trucking industry has recovered with adding all of the necessary jobs, so we are looking good in that particular category.

US Ports International Rankings

- According to the World Bank and S&P Global Market Intelligence's Container Port Performance Index for 2021, the United States two busiest ports ranked as the two least efficient ports globally.
- Responsible for about 42% of all US containerized trade with East Asia, the southern Californian twin hubs of Los Angeles and Long Beach filled the second to last and last spots of the report.
- Both ports outperformed for efficiency by Savannah, New York, New Jersey, and the Northwest Seaport Alliance, the other three top volume ports in the United States.
- The port of Virginia placed 23rd in the Container Port Performance Index making it the most efficient port in North America, followed closely by Miami at 29th.

According to the World Bank and S&P Global Market Intelligence's Container Port Performance Index for 2021, the United States' two busiest ports are the least efficient globally, which is Los Angeles and Long Beach which placed actually at 369th and 370th. They are responsible for about 42% of all U.S. containerized trade with Eastern Asia. This leads to significant problems overall on U.S. supply chain. Both ports were significantly outperformed for efficiency by Savannah, New York/New Jersey, and Northwest Seaport Alliance, but the port that ranked the highest was Virginia making it the most efficient port in North America followed closely by Miami.

Future of US Ports

- All indications point to Los Angeles and Long Beach continuing to process the highest volume of imports while battling congestion from rail and road transportation inefficiencies.
- The port of Virginia announced in May of 2022 that it has secured funds to become the deepest gateway on the East Coast marking a shift for the country's most efficient port and their capabilities.

While all indications point to L.A. and Long Beach continuing to process the highest volume, while battling congestions with all the other segments of the supply chain, the port of Virginia announced in May 2022 it has secured funds to become the deepest gateway on the east coast, marking a shift for the country's most efficient port and their capabilities.

US Ports World Bank Performance Index	Ranking
* Port of Virginia	23
Miami	29
Wilmington	49
Philadelphia	55
Port of Tampa Bay	64
Jacksonville	100
New Orleans	115
Boston	119
Houston	119
Charleston	130
New York/New Jersey	251
Port of Seattle	336
Tacoma	345
Oakland	355
Savannah	367
* Long Beach	369
Los Angeles	370

* Receiving funds from Infrastructure bill to improve efficiency

US Port	Volume Ranking
Los Angeles	1
Long Beach	2
New York/New Jersey	3
Savannah	4
Northwest Seaport Alliance	5
Virginia	6
Houston	7
Charleston	8
Oakland	9

Where tile is imported to		
1	New York/New Jersey	26%
2	Houston	16%
3	Savannah	15%
4	Los Angeles/Long Beach	13%
5	Port of Virginia	6%

* Top 5 account for 76%

This is the ranking of the U.S. ports in this world ranking. The one point we can make is that only Long Beach and the port of Virginia will be receiving funds from the now infamous infrastructure bill to improve efficiency in the United States. If you look at the volume ranking, you can see that Los Angeles being one and Long Beach being two, still need the most improvement, and we can see where most of the tile is coming into with New York/New Jersey at 26%, 16% out of Houston, Savannah 15%, Long Beach 13%, and the port of Virginia currently only 6%. The top 5 account for about 76%, Houston is very high obviously because we see that as an excellent port to the middle of the country.

Trends

- Visuals
 - Marble
 - Concrete
 - Wood
- Low to High
 - Red vs Porcelain
- Calibrated (Pressed vs Rectified)
 - A general rule is residentially in the US we will use calibrated product and rectified for commercial.
 - More factories are preferring to sell rectified because of the higher selling price and margin.

Trends – While there are many trends around the world, the United States still is lackluster, in my opinion, for trends. Yes, we have marble, concrete, wood, which make up a big category, and you could put a couple others in there, including fabrics or metallics, but then all the way from low to high we still sell a high amount of red body, which is used primarily for builder all the way vs porcelain and the various types of porcelain. Calibrated, or pressed vs rectified, a general rule is residentially in the United States is we used calibrated product because it's less expensive and rectified for commercial. More factories are preferring to sell the rectified because of the higher selling price and margin.

Residential Ranking	
1	30x60 12"x24"
2	43x43/45x45/50x50* 17"x17"/18"x18"/20"x20"
3	** 15x90/20x120 6"x36"/8"x48"
4	*** 30x30` 12"x12"
5	60x60 24"x24"
6	60x120 24"x48"
*45x45 18"x18" Primarily	
** 20x120 8"x48" Primarily	
*** Still used as a base for builders in red body	

Commercial Ranking	
1	30x60 12"x24"
2	60x120 24"x48"
3	60x60 24"x24"
4	* 15x90/20x120 6"x36"/8"x48"
5	** Larger sizes
* 20x120 8"x48" Primarily	
** Due to the mix of Gauged Porcelain Tile Gauged Porcelain Tile Panels/Slabs	

If you look at the ranking of the size popularity, it's very difficult to get a breakdown, however, after surveying all of the large distributors and manufacturers in the United States, primarily the 12" x 24", or 30x60 as it's known, is the number one size in both residential and commercial. You will see the 17" x 17", 18" x 18", and 20" x 20" second residentially because of the mix of different manufacturing sizes that they make, 17" x 17" being driven specifically out of Lamosa. 6" x 36" and 8" x 48"s are definitely a wood plank size, but primarily the bigger volume now is 8" x 48" and the 12" x 12" is a very big surprise for many people because it's still used as a base for builders within the red body. Commercial you will see 12" x 24", 24" x 48", 24" x 24"; 6" x 36" and 8" x 48", again being the wood, but 8" x 48" primarily being the leader in that category. The larger sizes are difficult because of the Gauged Porcelain Tile and Panels and Slabs and everybody using different sizes to cut it down, but we know large format is growing quickly in the United States. The difficulty is our inability to have enough installers.

Residential Ranking	
1	30x60 12"x24"
2	43x43/45x45/50x50* 17"x17"/18"x18"/20"x20"
3	** 15x90/20x120 6"x36"/8"x48"
4	*** 30x30` 12"x12"
5	60x60 24"x24"
6	60x120 24"x48"
*45x45 18"x18" Primarily	
** 20x120 8"x48" Primarily	
*** Still used as a base for builders in red body	

Commercial Ranking	
1	30x60 12"x24"
2	60x120 24"x48"
3	60x60 24"x24"
4	* 15x90/20x120 6"x36"/8"x48"
5	** Larger sizes
* 20x120 8"x48" Primarily	
** Due to the mix of Gauged Porcelain Tile Gauged Porcelain Tile Panels/Slabs	

Information on US Factory

- If Spanish factories are interested in a US factory JLC can supply this information
- Contacts
 - Government
 - Building Contacts
- High Level Information
 - Building
 - Land
 - Raw Materials
 - Utilities
 - Labor
 - Natural Gas
 - Electric
 - Water usage (including recycling process) cost in that particular location?
 - Permitting
 - Workforce
 - Incentive
 - Tax Rates
 - Transportation Costs

If you are interested in having information on building a U.S. factory you can reach out to me and I can give you high level information and contacts with these specific points. Feel free to reach out to me.