The Construction Materials Shortage: The Story So Far [1, 2]

Erica Solberg [3]

Due in part to the COVID-19 pandemic, more people want to build a new home, move somewhere larger, or renovate than ever before. As a result, there is a huge demand for homes and building materials. However, there is also a shortage of various construction materials, as you might already be well aware. If you've been to a hardware store or home improvement supercenter recently, then you can practically see the costs go up before your very eyes.

This important issue has a broad impact and will also have long-term economic consequences. Yet how did we get here? What is being done to counteract the shortage? What can be done by either individuals or governments? And how much longer can we expect higher prices and reduced access to continue? We cannot hope to explain everything in a single article, but we can shed light on the story so far and give some insight into where it might be going.

What's the Problem?

Over the past year or so, lumber prices have skyrocketed, and even finding the stuff can be difficult. Also, add to the difficulty of finding the exact lumber needed (you can't just substitute one type of wood for another). While contractors and sawmills are doing their best to make do or increase production, it currently isn't enough. Even if some prices are down from their peak earlier this year, they are still debilitating to many.

Steel has also risen in price and become less available, which is just as impactful. Given the amount of steel used in practically everything, particularly larger buildings and construction projects, infrastructure worldwide is being affected. Public works and construction budgets are heavily impacted, and the extra costs have to be dealt with somehow, meaning delays, cuts to other things, or increased taxes.

On the private end, which we will go into a bit more detail about later, construction costs are skyrocketi0ng just because of the materials needed. Labor is also an issue (especially skilled labor) due to increased demand. Nonetheless, the real impact has been these materials shortages. While the market often sorts itself out, the product or service in question here is living space, having severe consequences for people's daily lives.

[1] This article first appeared on https://conexboxes.com/blog/construction-materials-shortage.
[2] How to cite this article: Solberg, E. (2021). The Construction Materials Shortage: The Story So Far; Commentary, *PM World Journal*, Vol. X, Issue XI, November.
[3] The article was originally created by Ms. Solberg and several anonymous writers for the conexboxes blog

The contractors, who generally feel the biggest impact and buy the materials (whether for themselves or their clients), are noting serious material shortages. At least one thing they need for the project is missing, most likely lumber or steel. Lighting supplies or certain types of wiring are also in short supply, though the problem isn't as acute. Contractors have to pass on the costs to their clients or suffer huge losses.

So why not just make more lumber and steel? It sadly isn't so simple. The production chains are relatively complex, and the materials must be shipped and processed from place to place. There could be delays in those shipping lanes, especially if overseas or lengthy travel is involved, and the end products still need to be shipped around the world. As we will highlight later, simply increasing production takes time as well.

So How and When Did It Start?

For those looking for a simple answer, there isn't one, but we will try our best to summarize:

Effectively, production in some places was reduced by an economic downturn before the pandemic and never recovered. While regular demand was being met, the pandemic created a massive spike due to the desire for bigger homes, new homes, and home office extensions, among other things. This was completely unexpected, and the markets were not prepared. Remote work necessitated these expansions, especially with it becoming more permanent (18 months in and many people are still working at home.)

Additionally, the pandemic disrupted the shipping of materials and products, leading to shortages in specific areas. There might not have been enough workers to transport the goods, or there might not have been the means to transport them. There is a labor shortage (or some would say a desire for higher wages across the board) in many industries, and it is still sorting itself out.

The market and economic powers will take some time to make it back up, as both the personnel and equipment needed to produce more construction materials will not appear overnight.

Who is Affected?

While practically every area of the economy is affected in some way, the most heavily impacted are:

‘’

Home Improvers: Anyone planning a DIY project will likely find problems at their nearest home improvement store. Materials might not be available, and prices are going up on top of the retail markup. Materials such as wiring are harder to come by. It might not be the best time to get into woodworking either.

Builders and Construction Companies: While the largest businesses might be able to use contracts and enormous buying power to their advantage, it still won't be any cheaper for them, and there might be hiccups in shipping. Even with all the money in the world, if the materials aren't there, they aren't there. This could cause a ripple effect of delays for some time. Alternatively, employees might find their work hours more unstable than usual.

Small Contracting Businesses: They might be the most heavily hit, as they might not get the priority from lumber producers, and yet they have some of the greatest need for supplies. They use building supplies in small quantities all the time, and chances are they do not have the extra space to stockpile materials, at least not at the same scale as larger outfits.

Industrial Projects: Industry, in general, will ironically be affected by these challenges, despite industry creating the materials. A lot of steel is needed for large-scale production, and lumber is no different. Whether it is an upgrade, opening a new factory, or something else, everything just got more expensive.

We would also like to note that while shortages and problems you read about might usually be US-centric unless stated otherwise, this is a worldwide issue. Manufacturers in China are having problems, as are homebuilders in the UK. The exact scale of the problem may vary, but a globalized economy has all but guaranteed that this impacts everyone.

Natural Fluctuation

It's worth noting there is plenty of natural fluctuation and change in lumber prices, and to some degree, steel prices. Building materials are needed in spurts, and this is, for the most part, a non-issue. It balances and evens out over time, and industries are prepared (to at least some degree) for this.

However, what we are seeing is far beyond the natural fluctuations of industry, and we are not likely to see a correction for some time yet. The demand is just too high, and too many people are unwilling to change their plans. Increased housing prices also make this more complicated.

When will we know when we are back into something resembling "normal"? Likely when we do not see significant shortages and when prices become reasonable again. We are unlikely to see prices ever return to pre-pandemic levels outside of a crash, perhaps due to inflation, but we can hope that stability will eventually come.

How Is Production and Supply of the Base Goods?

How does it look when it comes to the basic supply of iron and lumber?

In terms of lumber, production is strong, but there is the threat of wildfires raging across Canada and parts of the Western United States. Not only does this affect the lumber available but also the supply lines related to it. You can't safely drive a truck through a raging inferno, and burnt trees do not make for the best wood.

Lumber also took a hit in recent years in terms of production. Due to an economic downturn during the great recession and less demand, some sawmills shut down or heavily reduced production. There was a steady increase, but it never reached pre-great recession levels. So, while there is a demand for more production, getting those sawmills running at full capacity again is not as simple as turning on a switch.

Looking at iron and steel, we did not see much difference, though there was a slightly similar trend. Demand is likely the main cause of issues here, and it should be noted that the shortages are not as pronounced across the board when it comes to steel.

A Self-Perpetuating Cycle

Then there is another factor: the fact that there is a shortage of lumber and steel (among other things) contributes in and of itself to the construction materials shortage. If businesses and future homebuilders know they will need lumber but do not expect things to get better soon and cannot guarantee a supply, they will get as much as they can. This happens even if they do not need it this second or the price is inflated. After all, it might not be available later, and the price could be even worse.

The shortage was at the point where professional organizations and news outlets were warning builders to stock up where they could. Furthermore, experts advise against builders and contractors locking in prices for anything, given the potential rising costs. This is a massive problem in itself, as the construction industry is dependent on agreements to move forward. Organizations and future homeowners dislike uncertainly and cannot agree to prices they might not be able to pay in the future. All of this might lead to lawsuits and breached contracts.

It is much like the run on toilet paper during the start of the pandemic. While there was plenty to go around and supply wasn't heavily affected by the pandemic, the fact that everyone went out and started hoarding it all at once caused a massive shortage and plenty of problems. While cleaning supplies made sense, it was just irrationality that drove the trend for toilet paper.

Some of the construction industry shortages result from people or contractors trying to buy as much as they can find in case they need it later or perhaps hoping to sell it at a profit. This is a bad scenario in which panic buying is somewhat justified on a smaller level but only worsens the industry as a whole.

Changing Demands and Workplaces

The changing idea of work and the office plays a lot into the shortage, and any good investigation into the topic must start there. Why is the demand for housing and building materials going up?

As more people are working remotely, the considerations of a commute are going down, and more people want to invest in home offices. This means more people are moving out to the suburbs or even rural areas and building their dream homes.

Furthermore, even with some offices deciding to just not open up, with the workplaces deciding to go entirely remote or downsize significantly, one might think that those office buildings would be easier to rent. And they are. Compared with just a couple of years ago, it is relatively easy to get office space in most places. However, it is not as though these offices have been converted into proper living spaces or can be right away. There might be a lack of interest from the property owners just yet, or zoning issues to contend with. The landscape of your nearby city might change due to the remote work shift, but it will not happen overnight.

COVID-19 also hit production of some things more directly. Some sawmills and factories of various sorts were impacted by the pandemic, closing down for some time. This lack of production is not made up easily, and there might not be enough qualified workers in those areas anymore. People will have to move back, and that takes time as well.

Problems with Shipping

Many say shipping delays and shortages caused the building materials shortage, which is absolutely part of the problem. While there are many factors, the shortages in certain areas result from the previous economic downturn and distribution issues.

The problems with shipping go two ways. The problems with shipping lead to a construction material shortage, and the construction material shortage leads to problems with shipping (we need steel for bridges, etc., after all). On top of infrastructure needs, many things used for shipping require materials such as steel and lumber. Even keeping up with things under normal circumstances is a fine-tuned machine with little room for error.

Look at shipping containers, for example. They are certainly not the most complex things to build and use relatively little in terms of materials. However, a lot of steel and wood (the floors in shipping containers are generally wood) that go into containers. Both materials are suffering from supply problems, with thousands of containers needing to be built each year to keep up with demand and the retiring of old containers.

This, in turn, has led to a shipping container shortage in some areas, which can have long-lasting effects. They are almost the red blood cells of modern industry, taking products to exactly where they need to go worldwide. There is no sensible alternative, and we need thousands upon thousands of them. Sure there are plenty already, but they do wear out over time or do not meet the standards for proper shipping. Unless the shortage is solved, the problem will worsen, or shipping will get more expensive, which affects everyone.

And what does a lack of shipping containers mean more specifically? Delays with shipping even if there are ships to get everything where it needs to go. This then leads to bidding wars for the available containers (which isn't good for costs of products worldwide), with companies and people waiting weeks to potentially months to get a container. This is a particular problem with goods that spoil and can lead to shortages of other products in storage.

In short, the economy is so tightly knit together that one snag in the chain can cause issues, and something as simple as a lumber or steel shortage can have a ripple effect. It can be hard to contain such problems in any reasonable amount of time. Any efforts to artificially manage or control the shortage can backfire if the administration isn't done correctly.

International Trade Is Complex

International politics and trade deals complicate matters even further and must be considered if we understand the issue on even a basic level. For example, tariffs can heavily affect the price of lumber one way or another and impact supply or demand artificially. Although there is a demand for building materials across much of the world (due to globalization), there is also a lot to be said about the interests of nations and companies influencing their direction.

The shortage itself might cause some policy changes. Lumber might be redirected towards certain emergency efforts, given the unfortunate wildfires and devastation in some areas. Steel is always in need for strategic and political purposes, and the government will usually get its hands on something first if only to create a strategic reserve. If a country wants lumber or steel before anyone else, chances are they are going to get it. Local governments might not fare as well, but the national policy is another matter entirely.

Other issues and worldwide situations also compound the problem. A global chip shortage that is unlikely to be resolved until next year is impacting everything from car manufacturing to smartphone production. It can also complicate trade routes, with expected cargo loads falling short. While the pandemic is relatively under control in many countries, other countries are still experiencing heavy outbreaks, affecting everything from port efficiency to allowed travel to whether people can even go into work. Until the pandemic is dealt with globally, international trade will be affected to some degree, exacerbating the shortage of several materials.

This only scratches the surface of the issues at hand. While professionals and experts can usually stay on top of an ongoing crisis, some things cannot be accounted for and controlled.

How Long Will This Last?

As with many problems, it is hard to say for sure. While the market will deal with the problem naturally, that might not be the quickest solution with so many factors and interests already in play and trying to manipulate the situation.

It is unlikely that there will be a reduction in demand for these materials, even as the pandemic subsides. While many people will be going back to the office eventually, there is much to be said about people remaining in remote work positions permanently. People like it, many employers warmed to the idea, and it generally saves costs for both employers and employees. As a result, the demand for larger homes will stay constant.

Alternatively, if the production of building materials increases adequately, then the shortage will be mitigated if not solved. However, the increased demand for housing (among other things) must be met, and there are a lot of houses to build if the home market forecasts are to be believed. Loggers and lumber mills might work with trees, but they do not grow on them. Steel mills can only produce so much, and they are not built in a day (or even in a year). We can find a long-term production solution, but it will take time.

There will likely be differences in how long this takes depending on the material involved. While everything is connected, a steel shortage solution will not fix lumber and vice versa. Fixing the shortage of other materials will help lower costs in general but may take longer or shorter depending on the material involved and many other factors.

The more hopeful are saying that the shortages will end later this year, but it could go well into 2022, depending on how the remote work trend plays out (how permanent it will be) and what actions are taken on the part of governments.

What Can Be Done?

Looking over all of the above information can be overwhelming. It can even be outright confusing. There are so many factors at play, all interconnected, that the problem of the shortage feels like a knot. This is also true for governments and agencies of all sorts. You can be assured they are looking at this as well, considering it affects many of them.

Yet what can governments and agencies do to act on the situation?

- Efforts to aid an increase in production and offering incentives to do so is an option, though the exact methods would be up for debate. This could get a bit more aggressive, mandating more production in some cases. However, all the mandates in the world can only do so much, and steel mills and sawmills can only produce so much.

- Similarly, efforts can be made to reduce demand, perhaps making it less appealing to build a new home right now through tax incentives or the removal of existing incentives.

- As explained above, some countries might try to adjust trade policies to favor keeping materials inside the country where they are needed. Stronger countries with more economic weight to throw around might strongly consider this.

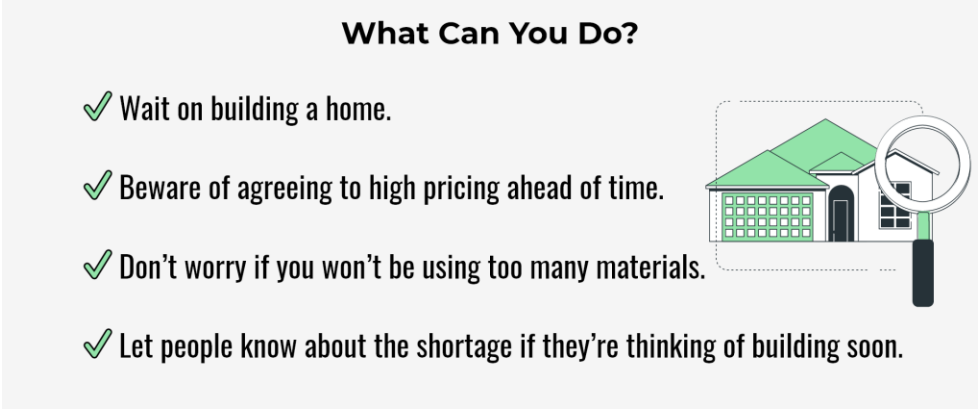
- Subsidizing material costs is a possibility, but who should they be subsidized for, and to what degree, remains to be seen. Too much can lead to a crash when the subsidies are pulled, leading to further complications down the line.

- Note that different countries will be affected by the shortage differently. There is no one way to tackle to issue, and some countries and areas might not have as much economic muscle to use. The solution for China will not be the same as the one for the United States.

- Whatever action is taken, if any, must be done carefully. Inept government action can potentially worsen the problem, at least in some areas, or cause new issues much worse than the shortages.

What Can You Do?

Reading this, you are probably not the head of state of any government. You probably don't have much power to influence policy. So what is there to be done on an individual basis? It depends on your situation.



- If you are looking to build a home but can wait, it would be advisable to do so. If you just want an extra room or home office and changing locations isn't vitally important, you might want to look into a used shipping container or alternative addition to your home, even if temporary. Traditional is not always best, especially when traditional is expensive.

- If you are a contractor or work in construction with responsibilities related to procuring materials, you know your job best and likely will not need advice here. However, in general, we would advise against making promises you cannot keep regarding pricing. Also, watch prices carefully and use your best judgment when buying supplies and materials.

- If you aren't looking to buy a home or use lots of these materials, then you are unlikely to be heavily impacted by the shortage directly. You might have issues finding some products at times, or prices for things you normally buy might go up, but there is not much to do that will change these things.

- If you aren't doing anything but know people considering building, let them know what is going on. People might be focused on other problems and stories at the moment (there sure are many out there) and might not have even noticed the increasing prices. While you cannot and shouldn't force anyone to change their mind, simply providing this information to them can be doing them an invaluable service.

Conclusion

There's a ton to this story. Unfortunately, it probably won't wrap up in any meaningful way until next year at the earliest. We do hope, however, that you have a better understanding of the situation. The materials shortage is a complex issue with no singular solution. Still, ideally, production ramps up or demand shifts, and once a few threads of the problem are solved, we can ideally unravel the rest of the issue more easily. Thank you for reading, and may the shortage end as soon as possible, especially if you are affected. This article first appeared on https://conexboxes.com/blog/construction-materials-shortage.

About the Author(s)

This article was composed by multiple contributors to Conexboxes.com. It was coordinated, organized and edited by **Erica Solberg**. Erica has 6 years of experience in the distribution and shipping industries. More recently she has been blogging and writing on relevant developments, with a particular interest in the supply chain in the shipping sector.

For more information or to contact the authors, visit conexboxes.com