

How to Manage Material Costing for Future Projects During Shortages and Inflationary Times

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No one knows precisely when a significant shortage or inflation of material will come. In the construction industry, the cost of materials changes daily. However, when Covid-19 arrived, the material price increased dramatically. Suppliers ran out of material, small companies couldn't afford the material, and large companies had to compete with other larger companies more than ever. I had the opportunity to interview five well-informed construction owners and senior executives about their companies and what they did to survive unforeseen shortages and inflations in construction material. Inventory and pre-buying materials were vital in helping companies not have to pay a dramatic increase on lumber, metal, concrete, plywood, and rebar. Another great way to help with unforeseen cost increases was communication between suppliers and owners. All interviewees stated that their suppliers would give them a heads up before the price increase to plan accordingly with their job sites. With materials still increasing, having the research to help future smaller construction companies manage material during inflation and shortages would be very helpful for construction companies. I got the information from both large and small construction companies to have a wide range of practical tips when dealing with times of inflation.

Key Words: Shortages, Inflation, Material, Inventory, Prices

Introduction

Managing Construction Inflation

With the Covid-19 pandemic starting almost two years ago, the construction industry is still being affected. The construction industry's shortages and inflations of construction material have been the downfall. Smaller subcontractors have had to struggle with the price increase in materials. Larger construction companies weren't as affected as the minor subcontractor and general contractors. Larger construction companies could be served first by their suppliers; when shortages happen on a construction project, the price of the material rises, which means that the price of parts of the project also tends to increase. For example, when a shortage of concrete hits the market, a deck pour will have to cost more than the original contract stated. Having a material shortage or inflation can lead to many problems with the owner and contractors on a construction project. General contractors and

subcontractors must find the best possible solution to deal with times of material inflation and shortages. Researching managing material costs during shortages and inflation is essential for future construction companies that friends or family could run. With better communication between suppliers and contractors and the possibility of pre-buying material, construction companies will get a start in the right direction to manage unforeseen construction material price increases and shortages.

Literature Review

Inflation and shortages are a massive part of any business. Having the ability to manage your cost during times of inflation and shortages is very important not only for the company but also for maintaining a proper budget. Many different steps can be taken to manage the costs of materials during these times. Zuzanna Villa has stated many ways to manage material costs actively. For example, “Comparison shopping for materials may help you uncover extra cost savings. So, explore all your sourcing options – not only various local suppliers but also repeatable wholesale outlets that sell online” (Villa). Having multiple forms of gathering material costs is a very effective way to save money and time. Another critical attribute Villa expressed is to “Build Healthy Relationships with Suppliers” (Villa). Communication is the first step in having a successful business. A great relationship with contractors and suppliers will make the job smooth and easy. This will also benefit your company because having excellent communication will be recognized by other suppliers and contractors.

Next, when dealing with shortages and inflation, communication and a good relationship aren’t the only things that need to be done to help manage material costs. A strategy is crucial in coming up with the best plan to manage your material during times of inflation and shortages. Judging the market is a great way to make a deal with your supplier because if you don’t investigate how the market is going, then there is the possibility that your supplier may be ripping you off. According to an article by McKinsey & Company, “After analyzing a proposed price increase, the next focus is on prioritizing categories based on the company’s exposure. Understanding which categories face inflation, together with the current terms of the contracts that involve these categories, helps in crafting a response to suppliers.” Ensuring the right price for materials after a shortage or inflation period is significant for managing your company’s money.

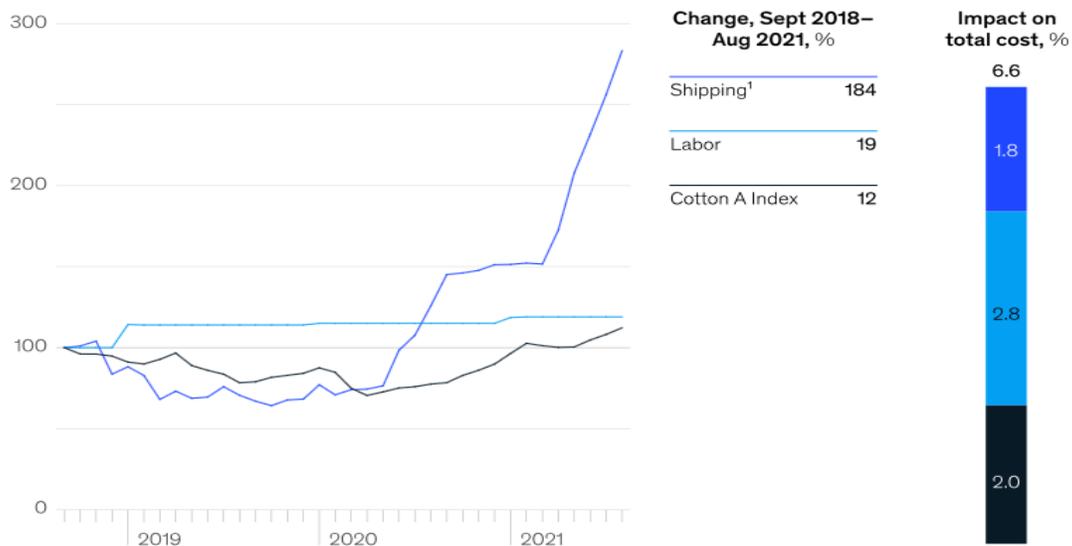


Figure 1: McKinsey & Company - commodity, labor, and shipping pricing increase over the last three years.

Methodology

This research was made possible with the help of five high-up officials of both large and small construction companies. Fifteen questions were developed to target specific areas when dealing with shortages and inflation in construction prices and broad questions to get a general overview. These interviews consisted of owners, vice presidents, and project executives to get the best understanding of the construction industry during inflation and shortages. This research-based project provided qualitative data, and action research was used to gather the information. The questions used to collect the study were used in the past and present tense forms. Construction companies have improved their methods over time to combat unforeseen price increases on the material. Therefore, what each contractor did in the past and present needs to be asked. On top of asking these contractors specific questions about how to manage material costs during shortages and inflation, follow-up questions were asked based on how they responded and how the contractors were involved with shortages and inflation. Asking these questions to current construction industry employees provides an understanding of what future contracts may use to help reduce the risk of material price increases and shortages.

Interview Questions

- What have you done in the past to combat unforeseen material cost increase?
- Do your suppliers tend to give you any warnings that cost increases are coming?
- Do you always have material escalation clauses in the contracts?
- Do you factor into your price what you think the material cost will be or do you have your suppliers guarantee the prices you ultimately quote?
- Do you ever have to go back to your customers and ask for addition monies because of unforeseen price increase?
- Do you ever offer your customer the opportunity to prepay material cost?
- Will you ever offer your customers discounts if they prepay material cost in advance?
- Do you ever pre-buy materials for potential future projects based on your company's history?
- Do you have clauses written into your contracts if materials become unavailable and cause delay's?
- Do your material suppliers offer you any financial protection if they are unable to deliver materials in the contract time?
- How many times during your career has inflation or shortages affected your company's performance?

- What steps does your company take when you foresee shortages or inflation?
- Can the uncertainty of shortages create unforeseen opportunity?
- Does your company have any means to take advantage of inflationary times?
- In the past what has been your experience with the future of your company following a long run of inflation and/or shortages?

Analysis

Premier Steel – Dominic Migliorini, Owner. Dominic Migliorini was interviewed for this research-based senior project to gauge the interest of the steel industry in times of shortages and inflation. Dominic has been the owner of Premier steel for over thirty years. Throughout his career, Dominic has had to go through six recessions and deal with shortages and inflation in steel materials. According to Dominic, “Last year and this year were bad. There have been a lot of times that I have gone through a recession. A recession has affected my second and third-year customers for supplies about six times throughout my career.” To combat unforeseen material cost increases, Dominic has a few ways to help reduce the risk of losing his company money. The first step he takes is to reach out to all suppliers daily to weekly to ensure that all prices are relatively around the same. Dominic then pre-buys materials before large jobs and sets aside a certain amount of steel for future projects. The best way that Dominic doesn’t lose more money is that he doesn’t tend to buy any more material during these shortages; instead, he ensures that all material is accounted for.

Largo Concrete, Inc. – Chris Forster, Vice President of Operations. Chris Forster has been the Vice President of Operations for Largo Concrete for almost eight years. He has had a lot of work experience in the construction industry, working for Morley Builders for nearly thirty years. Largo Concrete is a large subcontractor down in Southern California that operates in all locations over California, focusing on self-performing their concrete. According to Chris, the best way to combat unforeseen cost increases is to “purchase any major purchases, so they are locked in and don’t have to worry so that the material increase is not unforeseen. These materials make consist of concrete, nails, and plywood. Buy in bulk is always better because our suppliers will tend to give us a little bit of a discount if need be.” In addition, Chris stated that their suppliers would give them a heads up when price increases are coming. Lastly, the essential step that Chris takes to ensure that his company doesn’t lose any more money due to shortages or inflation is that he communicates with all suppliers to ensure that all prices are up to date and have not increased.

Bomel Construction – Kasey Shay, Project Executive. Kasey Shay has been a part of Bomel Construction for twenty-three years, working as a project executive in their concrete division. Kasey stated when dealing with unforeseen material cost increases, “formwork, lumber, and concrete can be pre-bought so that when prices start to increase, we will have suppliers ready to go at the original price.” Kasey stated that good relationships with ready-mix companies go a long way. Kasey explained a story about how in the last recession, one Jobsite that Bomel had was getting poorly hurt by price increases and inflation. Hence, the ready mic company gave Bomel a discount because of the excellent relationship with the company. However, Bomel has had the opportunity to take advantage during times of shortages and inflation by still receiving a percentage of interest from their suppliers. Kasey explained that it is tough to guess when inflation will come but that their company tries its best to be ready for anything.

McCarthy Building Companies – Patrick Peterson, Executive Vice President Healthcare. Patrick Peterson has been a part of McCarthy for twenty-six years now, working as the project director of the health care building department. Patrick has also been a part of the concrete division at McCarthy and has been through multiple recessions. With his knowledge, specific steps may be taken to combat unforeseen material shortages and inflations. For example, Patrick stated, “Being a part of a large institution, the jobs were done in two to four years, and communication is the biggest part, and relationships with other companies can help with the unforeseen changes in material pricing.” McCarthy is a large general contractor down in Southern California, and they can manage their material costs better than smaller construction companies. McCarthy is the one company that I interviewed that does not pre-buy its materials. Patrick said this was because, in their company’s history, they have seen jobs fall through many times and have been stuck with large bulk orders that were unnecessary and were a waste. According to Patrick Peterson, the best way to go about shortages and inflation is through communication and organization as best as possible.

Covi Concrete – Paul Bisson, President. Paul Bisson is the president of Covi Concrete and has been involved in the construction industry for over thirty years. The concrete business doesn’t just have to deal with concrete pricing and shortages but also with other materials like shoring, rebar, plywood, and formwork. Paul stated, “when dealing with clause, we absolutely will have specific bonds to deal with suppliers and delivery.” Paul was talking about if suppliers cannot bring materials to the jobsite that was already pre-bought, then specific actions may be taken care of. Like Largo, Paul makes bulk orders with multiple ready-mix companies when dealing with large construction jobs. Paul stated that if a ready-mix company slacks behind, he will start to use a different ready-mix company to speed up the process of gathering material. Paul has been through five recessions, and the best advice he gave was that in times of shortages, most people in the construction industry would be struck, so stay focused and communicate with suppliers and contractors to come up with solutions that work for that specific jobsite.

Results

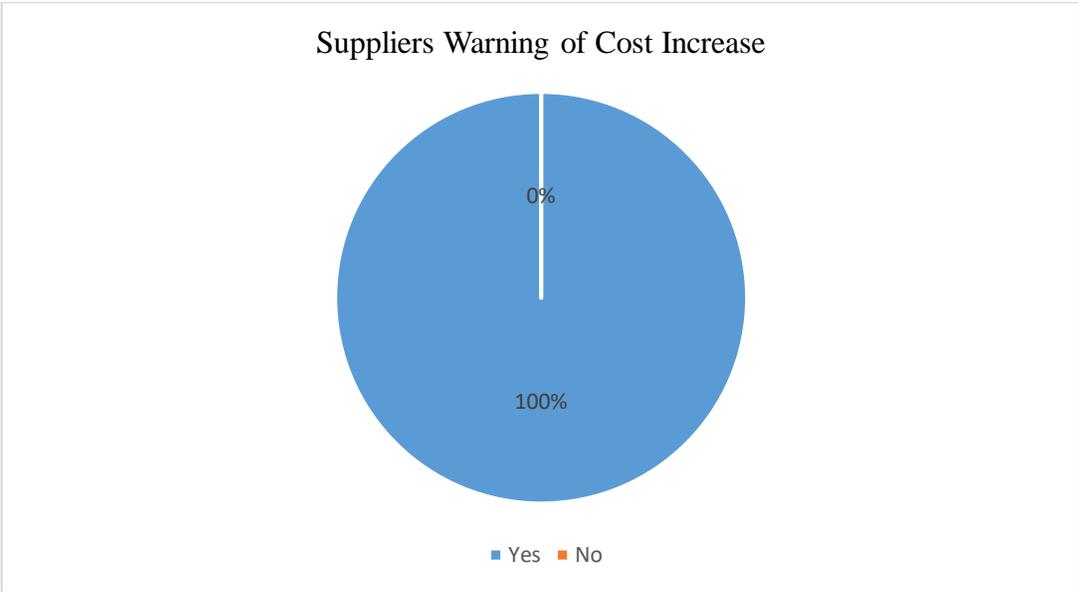


Figure 2: Personal interviews. Construction companies that receive warnings from their suppliers about price increases on material.

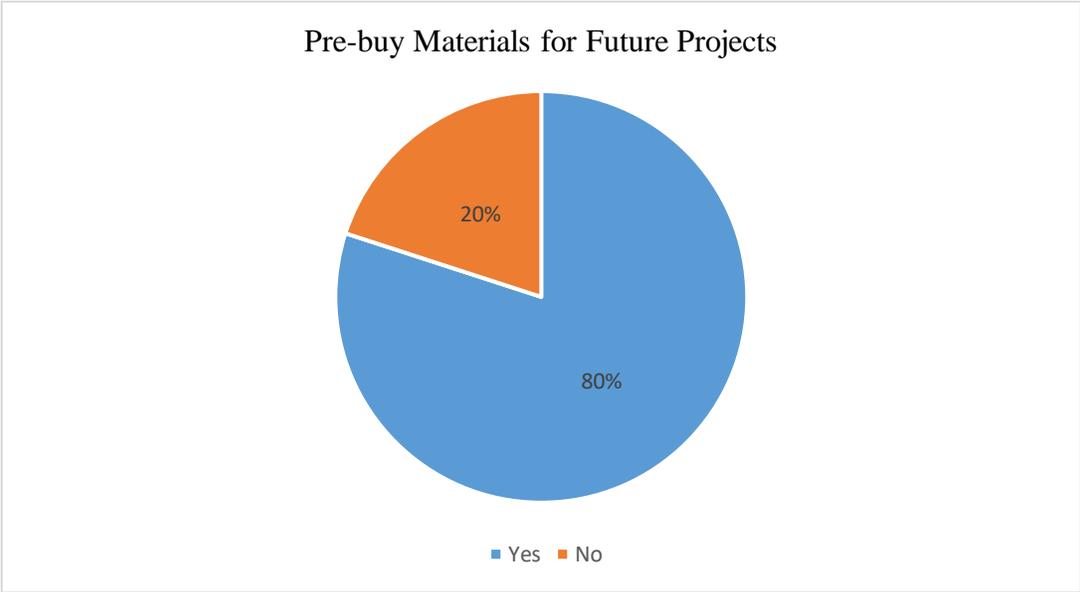


Figure 3: Personal interviews. Construction companies that pre-buy materials for potential future projects based on the company's history

Amount Inflation/Shortages Affected Company

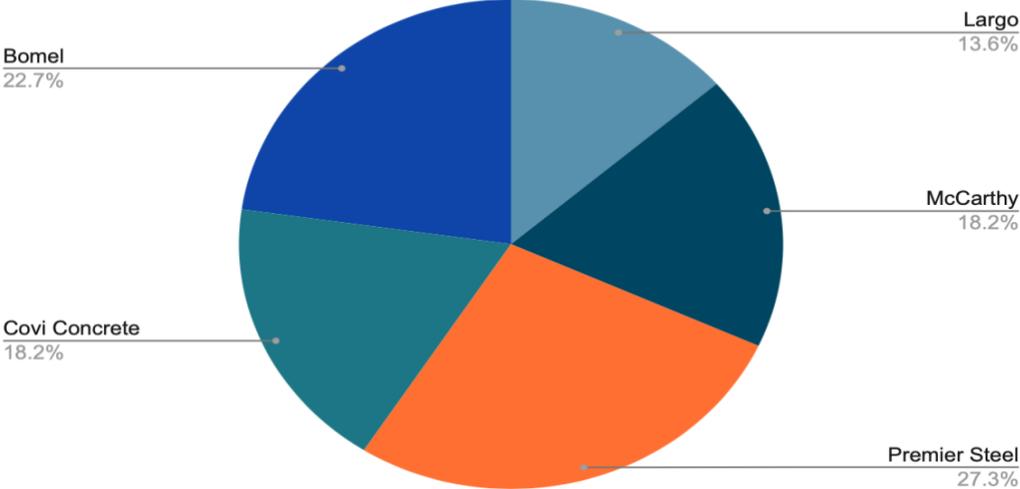


Figure 4: Personal interviews. Break down on which construction companies have been affected the most with shortages and inflation.

Conclusion

Shortages and inflation are always bound to happen in the construction industry, but how a person goes about it is a different obstacle. Prices of goods and materials have started to increase dramatically due to the setbacks from the Covid-19 virus. Larger construction companies like Largo, McCarthy, and Bomel have dealt with these rising prices more than their smaller competitors. Premier Steel and Covi Concrete are smaller construction companies and have had to deal with these setbacks more than most. Through much learning and further research, they can control shortages and inflation, which is almost impossible. Judging the market is a challenging thing to do, but there are always steps that can be taken to help with the unforeseen change's material prices.

These interviews gave many different forms of solutions that can help with shortages and inflation. The first step in dealing with shortages and inflation was that every construction company interviewed would get updates from their suppliers with the change in prices. Having communication between contractors and suppliers is the first and most crucial step that all these companies took to help reduce the hit of shortages and inflation. Next, four of the five companies interviewed stated that pre-buying material was beneficial and rewarding during shortages and inflation in the material. Buying in bulk was essential for larger construction companies because they could use the leftover fabric for smaller projects and not have to spend more money to obtain more material. Finally, the last helpful tip gathered through my research was that every construction company would thrive after the shortages. Inflation would pass because the pricing would drop dramatically, and everything would return to normal. In the construction industry, no one likes to see companies go out of business, and everyone starts to help each other. With contractors helping their suppliers and suppliers assisting contractors, the construction industry has a strong bond with each other. These construction companies always think about shortages and inflation, and how they go about it is the key to everything.

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