Machinery, E&C and Waste

Some caution on construction: call takeaways with Institute of Architects

Industry Overview

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Americas
Machinery, E&C and Waste

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Kermit Baker of AIA strikes a more cautious tone

We hosted an event with Kermit Baker, Chief Economist of American Institute of Architects (AIA), to discuss the current trends of the monthly Architecture Billings Index (ABI), project delays, and non-res building forecasts for 2024/25. In our view, Mr. Baker struck a more cautious tone relative to our call a few months ago: backlogs easing, billings weakness acerbated in recent months, new design contract at architecture firms are soft, and higher rates are (finally) taking a toll. To be clear, Mr. Baker highlights backlogs are still in a healthy range, yet recent readings show weakness on the margin. Mr. Baker sees total non-res building construction up 4%/1% in 2024/25 (vs +21% 2022). See more details inside. *Please reach out for slides, transcript, and replay details.*

Note: certain tailwinds not captured in non-res buildings

We note the Architecture Billings Index (ABI) has been rather weak for months yet construction spending is up ~20%. The ABI largely tracks the non-res building market ($700bn) and does not include key infrastructure activity (roads, highways, bridges). This is a sizeable portion of the construction market. While the non-res building market is expected to slow in 2024, public infrastructure segment is likely to observe solid growth. For example, highway & pavement is expected to reach $126bn in 2024 (+16%).

Billings tumbled in Q4 – searching for a bottom

The Architecture Billings Index (ABI) has moved sideways since Q422 in a fairly tight range around 48-52 (i.e., 50 = no change from the previous month). The ABI observed a sharp drop in late Q3/early Q4 with September, October, November in the 44-45 range. According to Mr. Baker, new design contracts at architecture firms matched the slowdown in billings suggesting that workloads are unlikely to rebound any time soon.

Project cancellations: higher rates cited as an issue

According to Mr. Baker, historically 10% of projects gets delayed, stalled, or cancelled (due to reasons such as permitting, inspections, and other unforeseen circumstances), This number ticked up to ~20% last year due to supply challenges (labor, materials). In AIA's most recent survey, that total increased to nearly 30% of projects delayed, stalled, or cancelled yet the pick-up is mostly demand related (financing costs, property values).

Fed cuts likely help yet there is a lag effect on non-res

The good news – the recent AIA survey suggests some cancelled projects can shift back into active phase over next 6 months if interest rates ease. That said, Mr. Baker cautioned how quickly overall rate cuts flow to the construction breaks ground – 12-18 months form initial signals/design phase at architecture firms to work at job sites.

Industrial + Institutional positive vs commercial weaker

Mr. Baker observes shifts in the non-res building market components for 2024/25: warehouses, data centers, manufacturing, offices, institutional buildings, retail, hotel. Industrial & institutional to remain low growth, commercial weakness accelerating.

AIA = American Institute of Architects

ABI = Architecture Billings Index

ARTBA = American Road & Transportation Builders Association

Refer to important disclosures on page 7 to 9.
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Timestamp: 19 January 2024 05:00AM EST

Call Takeaways

ABI Data: weak near term - searching for the bottom

Background: What is the Architecture Billings Index (ABI)?

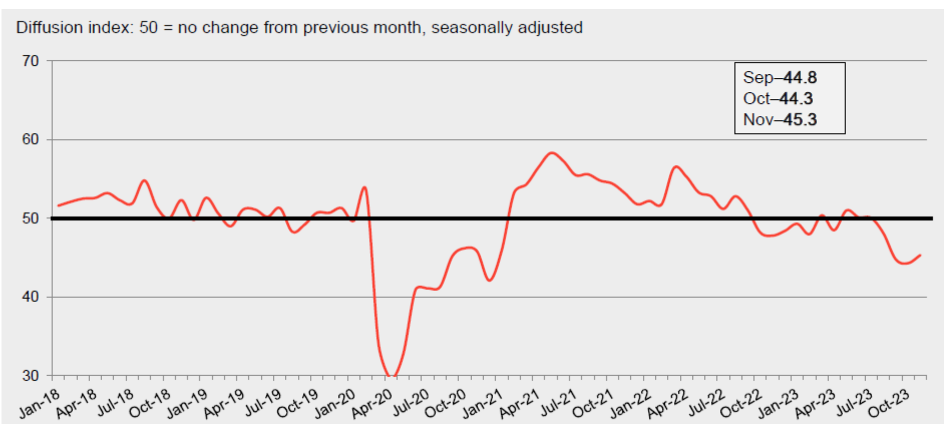
The ABI was created in 1995 and is a leading monthly economic indicator used to assess nonresidential construction activity, business conditions and predict and track the market. More specifically, the ABI is a diffusion index generated from results that survey architecture firms on billing activity. A score of 50 would translate to billings being flat that month, 100 would indicate that billings were up significantly, and conversely, 0 would indicate that they were down significantly. Historically, a great month would score around 60, while a concerning month would come in around 40. ***We would note that the ABI largely tracks the nonresidential building market and does not include public infrastructure activity (such as roads, highways, bridges, etc.).***

ABI billings have been weak since 2Q22, but tumbled in September 2023

The ABI fell sharply hitting during the pandemic as low as 30 early on as the economy shut down, however recovered back in less than a year as architecture firms surprisingly reported a rebound in billings through 1H22. From 4Q22, the ABI moved sideways and then dropped sharply in September 2023 to 44.8 (levels usually associated with a design recession). While the timing of recovery remains uncertain, Mr. Baker noted that the recent easing of credit conditions could potentially support new project activity. Nevertheless, Mr. Baker added that there have not been any firm indications from architecture firms of reaching a bottom just yet.

Exhibit 1: Architecture Billing Index (2018-2023 YTD)

Architecture firm billings took a notable downward turn in September 2023



Source: AIA/Deltek Architecture Billings Index

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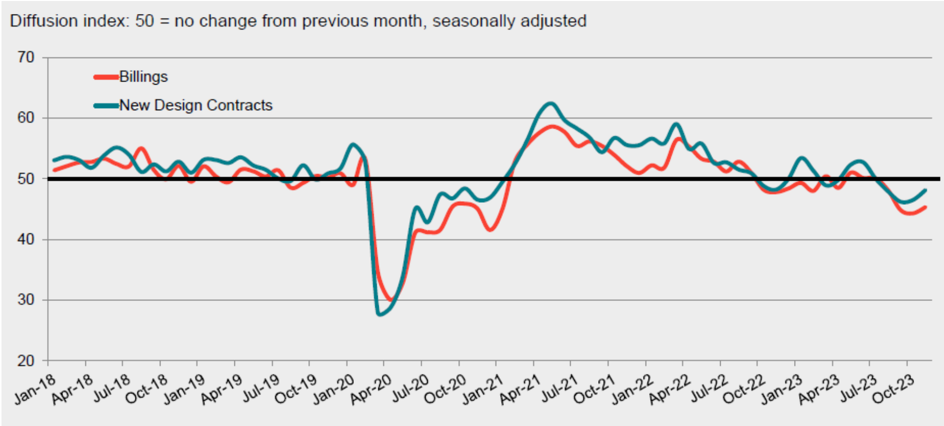
New project activity remains weak; searching for a bottom as new inquiries rise

New design contracts at architecture firms matched the slowdown in billings suggesting that workloads are unlikely to rebound any time soon. Mr. Baker largely attributed the slowdown in new design contracts to the higher interest rate backdrop causing several projects to be pushed to the right. Consequently, it was no coincidence that the latest easing of interest rates led to an uptick in new inquiries in recent months. While the uptick in new inquiries is the first sign that would suggest that the market may be starting to revive, Mr. Baker cautioned putting too much weight into new inquiries until there is a subsequent rebound in new design contracts activity.

Exhibit 2: New Design Contracts at Architecture Firms vs Architecture Billings Index (2018-2023 YTD)
New design contracts have also moved down, suggesting workloads are unlikely to rebound anytime soon



Source: AIA/Deltek Architecture Billings Index

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Impacts of rates on new design contracts and construction activity
Design activity typically leads construction activity by 9-12 months. Hence, the ABI weakening 12-14 months ago suggested that there could be a slowdown in construction towards the end of 2023 (which has largely played out with non-res spending growth relatively easing in recent months). Mr. Baker noted that the ABI has stepped down in September 2023, which would suggest a gradual slowdown in construction activity as we move into 1H24 and even steeper decline in 2H24. Architects have reported that higher interest rates have put in damper on new project activity. However, there has been some easing in long term rates in recent months as the market believes the economy has turned a corner on inflation – which invariably effects the viability of a project. More specifically, if rates ease, projects become more economically viable causing project developers to reach out to architecture firms (leading to an increase in new inquiries). Within a couple of months, this typically translates into new project activity at architecture firms (with the design phase ranging between 4-6 months/9-12 months depending on the size of the project). Following the design phase, project developers decide whether or not to pursue the project, and afterwards those approved projects go out to bid, and then begin the construction phase. Overall, Mr. Baker notes that it could take ~12-18 months from initial signals at architecture firms to construction spending being deployed at job sites. As architecture firms continue to search for an uptick in new design contracts, it seems like it could be well into 2025 before we start to see a rebound in construction activity, according to Mr. Baker.

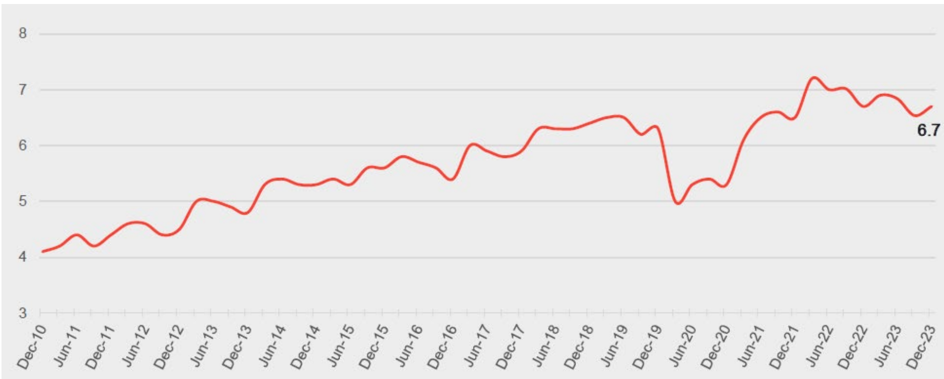
Backlogs: falling slightly, watching project delays

Architecture firm backlogs easing in recent months; % of project delays up YoY
Architecture firms analyze financial and business health using backlogs. Mr. Baker noted that backlogs at architecture firms have held up reasonably well overall, however recent numbers have been slightly weaker. More specifically, backlogs reached a high of 7.2 months on average in 1Q22 and has drifted down to 6.7 months as of 4Q23.

Historically, around 10% of projects gets delayed, stalled, or cancelled (due to reasons such as permitting, inspections, and other unforeseen circumstances), however, that number ticked up to ~20% early last year (with higher percentage of projects delayed vs being cancelled). In AIA's most recent survey last month, that total increased to nearly 30% of projects delayed, stalled, or cancelled (with a similar composition – i.e., more project delays over cancellations). However, there has been a concern around the number of cancellations slowing increasing in recent months.

While the delays last year were largely driven by supply challenges (labor and material costs, product availability, etc.), in recent months they have disproportionally been demand related (i.e., higher financing costs, weakness in property values, etc.). The good news is that the most recent AIA survey results also stated that architecture firms expect the number of delayed, stalled, or cancelled projects to come down and get back into the active phase over the next 3-6 months due to the easing of interest rates.

Exhibit 3: Average backlog at architecture firms (months)
Architecture firm backlogs have eased to 6.7 months on average



Source: AIA Work on the Boards Survey

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Non-res building construction spending and AIA forecasts

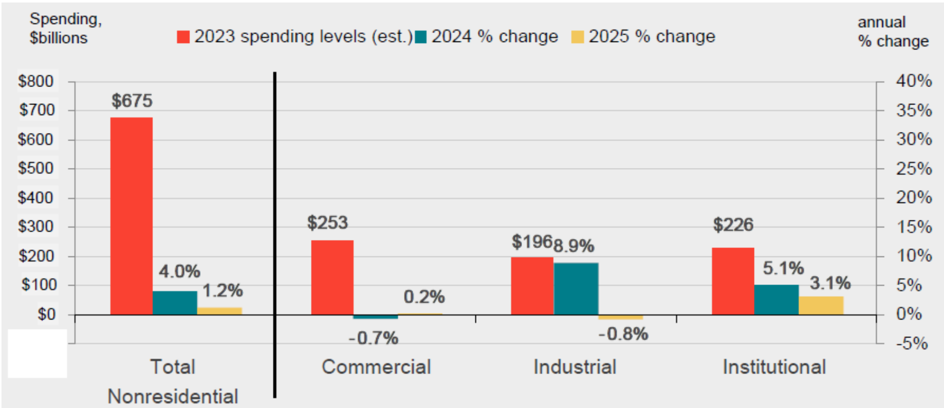
Non-res building finishes 2023 up ~20% following ~10% growth in 2022

Construction spending of non-residential buildings continued to accelerate at a faster pace in 2023 (i.e., +21% YTD as of November 2023) compared to +10% in 2022. Commercial and industrial spending is up 30% YTD with healthy spending levels on the institutional side as well (+11% YTD). More specifically, manufacturing remains strong (+71% YTD) and lodging has been improving from pandemic lows (+21% YTD). Retail and other commercial was stronger than expected (+9% YTD), and office was up +8% YTD largely due to the inclusion of data centers within this category. Within institutional, healthcare (+14% YTD) and education (+13% YTD) continue to grow at a double-digit pace. To be clear, this does not include non-res markets outside of buildings – such as highways, roads, bridges, water & sewage, etc.

Expect non-residential building growth to moderate, yet stay positive in 2024

Total nonresidential construction spending growth is expected to moderate to +4% in 2024 (vs +20% in 2023), before falling to +1.2% in 2025. The 4% growth in 2024 is largely driven by continued optimism in the industrial and manufacturing sector (+8.9%), followed by healthy growth of +5.1% in institutional, and slightly negative growth of -0.7% in commercial. In 2025, commercial is expected to be roughly flat (+0.2%) and institutional to remain relatively steady (+3.1%), however, industrial spending is forecasted to show slightly negative growth (-0.8%).

Exhibit 4: Annual percentage change in construction spending on nonresidential buildings in '23/'24
Non-residential building construction spending expected to see only very moderate growth this year before slowing more in 2025



Source: AIA Consensus Construction Forecast Panel, December 2023

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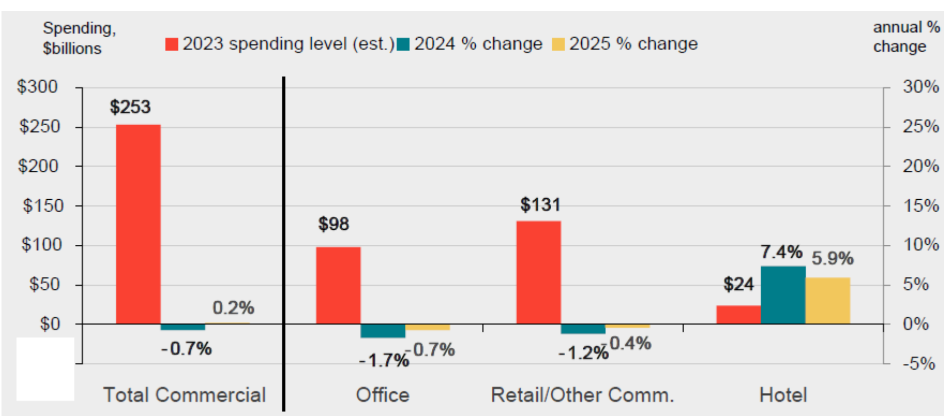
Commercial: hotel growth healthy, office and retail expected to slip both years

Hotels are the only segment under commercial that is expected to see positive growth both in 2024 and 2025 and the travel industry continues to make up for lost activity during the pandemic. Mr. Baker noted that distribution/warehouse spending accounted for ~55% of the retail and other commercial segment in 2022. While this helped boost the segment's overall growth in prior years (particularly during the pandemic), distribution spending peaked over the past year with growing concerns around them being possibly overbuilt (see: reports from Amazon scaling back on warehouses). While office growth is expected to be negative both in 2024 and 2025, it is surprisingly not weaker given record vacancy rates and decline in office property values). This is due to the incorporation of data center spending within the office category (which experienced rapid growth due to artificial intelligence related activity over the past year). Mr. Baker noted that core office spending would be down even further without data centers.

Exhibit 5: Annual % change in commercial (office, retail/other commercial, hotel) spending in '24/'25
Hotel construction to see healthy growth both years; office and retail growth to decline in 2024 and 2025



Source: AIA Consensus Construction Forecast Panel, December 2023

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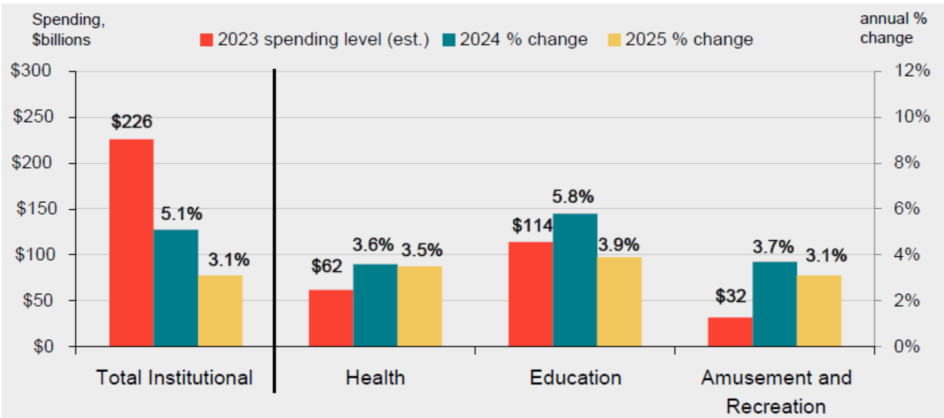
Institutional: only sector with modest growth forecasted in both 2024 and 2025

Mr. Baker noted that healthcare and education accounts for ~60% of institutional spending with the former remaining strong since the onset of the pandemic and is projected to continue growing in '24 and '25. Over the past year, education has been making up for its under construction during the pandemic and is expected to lead the sector growing by +5.8% in 2023 and +3.9% in 2024. Amusement and recreation (also affected by the pandemic) is expected to recover by +3.7% in 2024 and +3.1% in 2025 as people get increasingly comfortable with attending sporting events, concerts, etc. Overall, institutional spending is expected to remain healthier and more stable than other segments in '24/'25 given that a lot of its funding comes from state and local budgets wherein projects are unlikely to be cancelled/delayed and have typically gone through to completion after the approval stage.

Exhibit 6: Annual % change in institutional (healthcare, education, amusement) spending in '24/'25
Institutional sector remains relatively healthy in 2024 and 2025; education leads sector growth both years



Source: AIA Consensus Construction Forecast Panel, December 2023

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Stronger outlook for states with rising industrial activity & better affordability
According to Mr. Baker, the Midwest has been growing faster than other regions of the country largely due to the relatively higher surge of manufacturing activity in those states. Unsurprisingly, the Northeast region remains the weakest. Over the long term, Mr. Baker noted that population growth is a good indicator of future construction activity. The US Census Bureau continues to see strong growth in the South (particularly in states such as Texas and Florida). However, there has increasingly been a mix shift within these states since the pandemic where people now prefer to live in more affordable areas away from the city (for e.g., Central/Northern markets in Florida growing faster vs Southern markets with higher property values).

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