Box 3

GDP of the Construction Sector in 2017: some stylized facts and disparities

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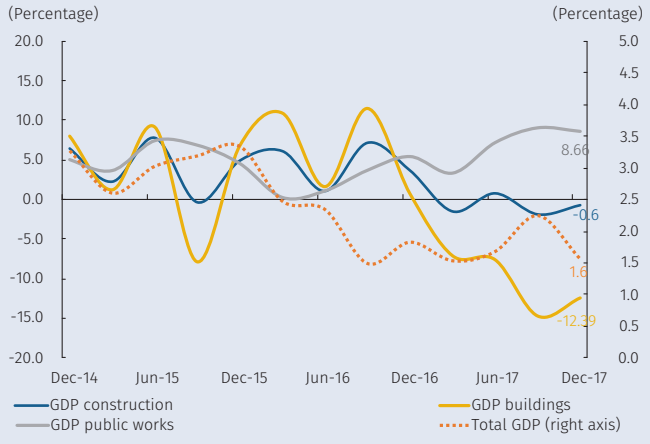
Construction, as one of the most important non-tradable sectors, has not been isolated from the adjustment that the Colombian economy has shown since 2014. Although the GDP for construction increased 2.5% between 2015 and 2017 and it is higher than the total GDP for those years, it is significantly lower than the average it has registered since 2000 (7.5%). In addition, the weakening of this sector was more strongly experienced in 2017 when the GDP for construction declined 0.7% while the Colombian economy grew 1.8%. This was a reversal, since this branch had grown more than the economy as a whole over the last decade. Likewise, it should also be noted that the disparity within this sector has increased significantly since the end of 2016 (Graph B3.1).

In general, the changes in the GDP for the construction sector depend to a large extent on the total area which is licensed for both residential and non-residential construction along with the payments made for public works at the national level. Based on the national accounts published by DANE, the deterioration in this sector in 2017 is mainly explained by the performance in the building construction subsector, which fell 10.4% and canceled out the positive performance of the GDP for public works, which grew 7.1%. The heterogeneity that prevailed in the country's construction sector during 2017 is explored below.

Graph B3.1
Gross Domestic Product
(annual change)



Source: DANE.

Disaggregating building construction, the GDP for residential and non-residential construction showed a reduction of 6.2% and 16.2%, respectively.[1] When the two groups are compared, a disparity in their performance also becomes evident. For example, while the residential building subsector reached two peaks, one in December 2014 and the other in December 2015, the non-residential one hit a maximum in the second half of 2016. Although, the levels of completed construction fell, in both cases, in 2017, this decrease was much more acute for non-residential construction (Graph B3.2). In particular, while the completed residential constructed area dropped 0.83% in the fourth quarter of 2017, the non-residential one showed a significant reduction of about 18%.

The deterioration of both residential and non-residential construction in 2017 was largely seen in the total area that was either still in process or completed. It should be noted that residential construction holds the greatest weight within the total of both stages of construction.[2] The heterogeneity in the results becomes even more obvious when they are analyzed by region (Graph B3.3). According to CEED, when the data is broken down by stage of construction and for a total of sixteen areas, it can be seen that the cities that showed the greatest decrease in terms of total constructed area completed were as follows: Cúcuta, Popayán, Bogotá, Medellín, Cundinamarca, and Barranquilla.

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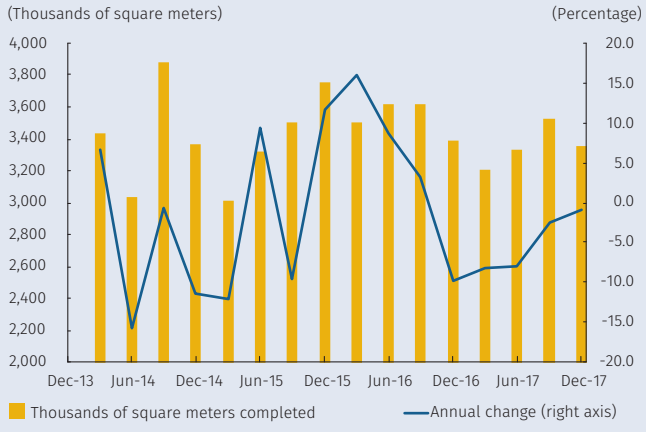
1 The main source of information for calculating the GDP for the building construction subsector is the Building Census (CEED) published by DANE. This census contains both residential and non-residential information classified by city, socioeconomic class, stage of work (completed, in-process, or delayed) and phases of construction (excavation and foundation, structure and roofing, masonry and plastering, and finishing levels I, II, III).

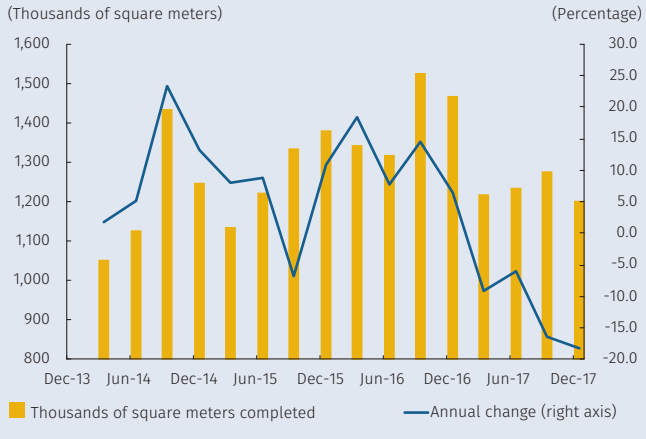
2 The share of residential construction stands at 72.30% for completed area, 69.28% for area in process of construction, and 70.24% for area in delay. As for the non-residential share, in turn, it fluctuates at around 30% for each one of those stages of work.

Graph B3.2
Construction Completions

A. Residential

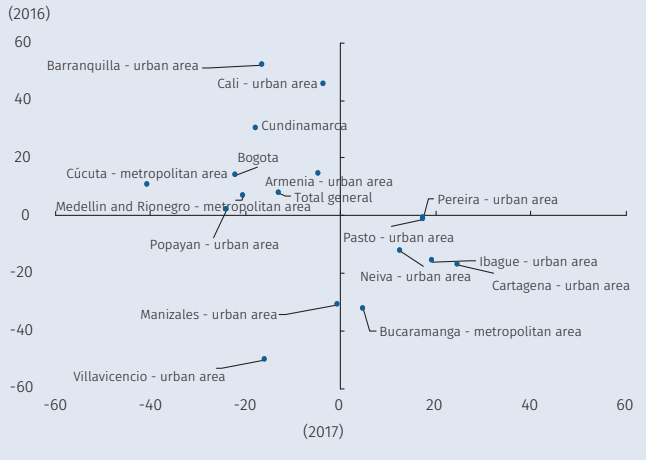


B. Non-residential



Source: DANE, CEED, authors' calculations.

Graph B3.3
Area of Construction Completed by Region
Annual variations in 2017 and 2016, percentage



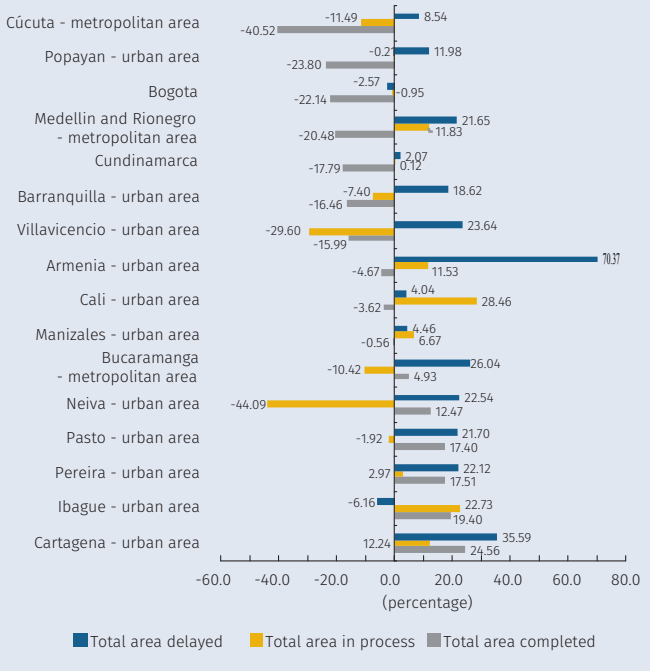
Source: DANE, CEED, authors' calculations.

These are precisely the ones that hold the greatest relative weight within that category. In contrast, Cartagena, Ibagué, and Pereira showed strong levels of growth that were still not enough to neutralize the generalized decline over a large part of the country. In the case of the area in the process of construction, Cali, Ibagué, and Medellín stood out and these were counterbalanced mainly by Neiva, Villavicencio, and Cúcuta (Graph B3.4).

Regarding the construction phases, which are associated with the construction stages of the projects, the phases of structure and roofing (35.4%) and masonry and plastering (17.3%) have the greatest share within the total. Thus, while the first dropped 7.3% during 2017, the second grew 1.7%. The rest of the phases showed significant reductions such as in the case of finishing, levels II and III (Graph B3.5). Finally, when analyzed by socioeconomic class and area in the process of construction, the declines were concentrated in strata 1, 5, and 6, with annual changes of -35.8%, -4.5%, and -1.6%, respectively. Those strata hold a 33% share within the total.

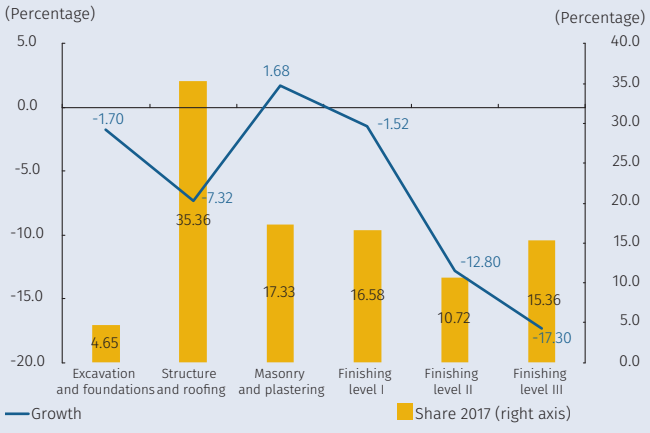
The outlook is not very encouraging going forward due to the decline in the issuance of licenses that continued during 2017. However, the sharp falls registered that year are not expected to repeat. In particular, the trend registered in the total licenses granted last year is due to a downturn in licenses for housing construction, which fell 8.8%, and in those for other types of construction, which declined 15.1%. In the case of residential construction, the licenses for low-income housing (LIH) fell to 24.1% and

Graph B3.4
Construction starts, 2017 and 2016 aggregate[a/]



a/ Figures that correspond to the area of housing starts
Source: DANE, CEED, authors' calculations.

Graph B3.5
Construction Completions, based on construction phases
Total sixteen areas



Source: DANE, CEED, authors' calculations.

those for non-LIH (which has an average weight within the total for housing that is above 70%) decreased by 3.1%.

Despite the significant GDP growth for public works during 2017 (7.1%), this growth is not unrelated to the heterogeneity in the results. While the subsectors of public works for mining and other engineering projects showed a significant performance, the subsectors of railways and waterways fell significantly (Table B3.1). Roads, in turn, decreased slightly (-0.1%) and this was partially associated with the delays in schedules and financial closures of some 4G projects as well as with the problems related to Odebrecht that might somehow affect the payments for certain projects. It should be noted that the performance of the GDP for public works was maintained thanks to the high share held by the work projects for mining (close to 50% within the indicator) and which expanded 10.9% in 2017. By type of entity, the entities at the territorial level were found to have contributed the most to national outcome in 2017.

As described in Chapter 4, a risk to the economic growth going forward is the uncertainty with respect to the expenditures on highway and mining projects. Although it could be expected that the investment in public works for mining would continue due to the current prices for crude oil, the political uncertainty regarding the presidential election could stop the expenditures at least during the first half of the year. Something similar might happen in the case of other types of investment projects such as road construction.

Table B3.1
Public Works by Type
(percentage)

Code	Type of work	Weight	Annual changes	
			2016	2017
4001	Construction of highways, streets, roads, bridges, elevated roads, tunnels, and underground construction	27.83	8.7	-0.1
4002	Railways, runways and mass transportation systems	2.6	75.7	-20.2
4003	Waterways, ports, dams, and other port construction.	11.45	4.6	-7.5
4004	Construction for mining and pipelines for long and short distance transportation, lines of communications and energy	50.87	-17.0	10.9
4008	Other engineering projects	7.25	14.4	30.1

Source: DANE.