

The Skyscraper Surge Continues in 2015, The “Year of 100 Supertalls”

Report by Jason Gabel, CTBUH; Research by Marty Carver and Marshall Gerometta, CTBUH

Note: Please refer to “Tall Buildings in Numbers – 2015: A Tall Building Review” in conjunction with this paper, pages 9–10

The Council on Tall Buildings and Urban Habitat (CTBUH) has determined that 106 buildings of 200 meters’ height or greater were completed around the world in 2015 – setting a new record for annual tall building completions (see Figure 3).

Further Highlights:

- The 106 buildings completed in 2015 beat every previous year on record, including

the previous record high of 99 completions in 2014. This brings the total number of 200-meter-plus buildings in the world to 1,040, exceeding 1,000 for the first time in history and marking a 392% increase from the year 2000, when only 265 existed.

- A total of 13 supertalls (buildings of 300 meters or higher) were completed in 2015, the highest annual total on record. Since

2010, the number of supertalls in the world has exactly doubled, from 50 at the end of 2010 to 100 at the end of 2015.

- The tallest building to complete in 2015 was Shanghai Tower, now the tallest building in China and the second-tallest in the world at 632 meters. This had notable effects on the list of the 10 tallest buildings, pushing the 442-meter Willis Tower (once Sears Tower) off the list for the first time in its 41-year history.

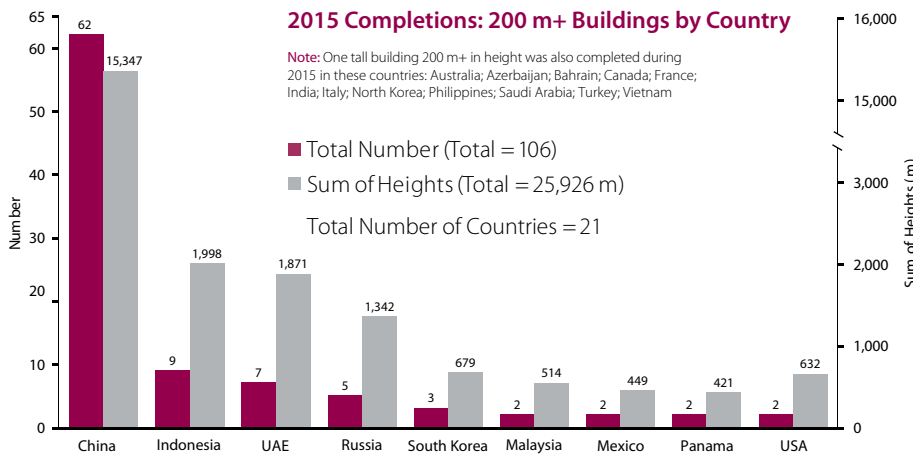


Figure 1. 2015 completions by country.

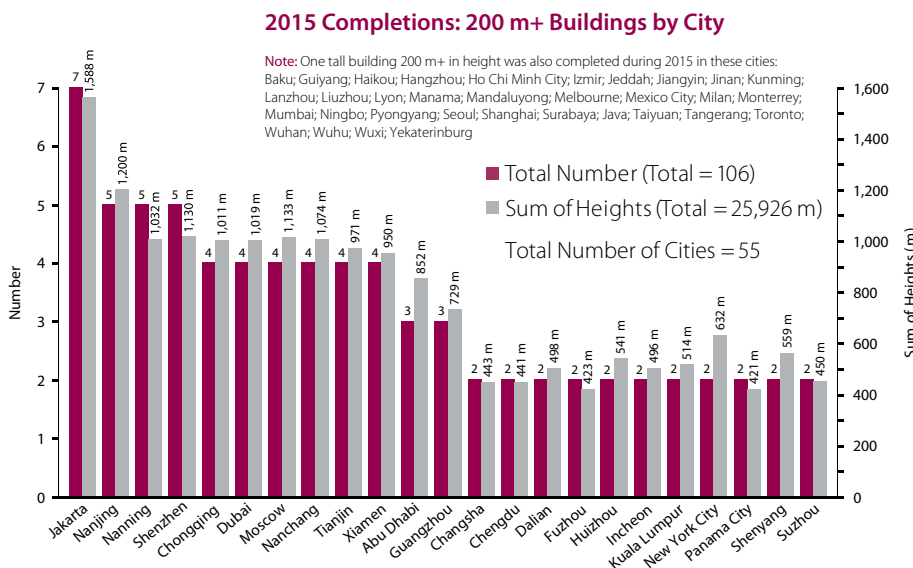


Figure 2. 2015 completions by city.

- The second-tallest building to complete in 2015 was 432 Park Avenue in New York City, becoming the tallest all-residential building in the world and the world’s 100th supertall building.

- Once again, Asia was a major driver of skyscraper completions in 2015, with 81 buildings representing 76% of the 106-building total.

- Europe had a big year with eight completions, an annual record for the region, while Central America makes a notable appearance on the list with four.

- For the eighth year running, China had the most 200-meter-plus completions with 62 (see Figure 1), representing 58% of the global 2015 total, but only marking a 2% increase over its previous record of 61 in 2014.

- Indonesia took second place with nine completions, and the United Arab Emirates followed closely with seven. Meanwhile, Russia came in fourth with five completions and South Korea trailed with three.

- Jakarta, Indonesia had the highest 200-meter-plus completions of any city in 2015 with seven, while Nanjing, Nanning,

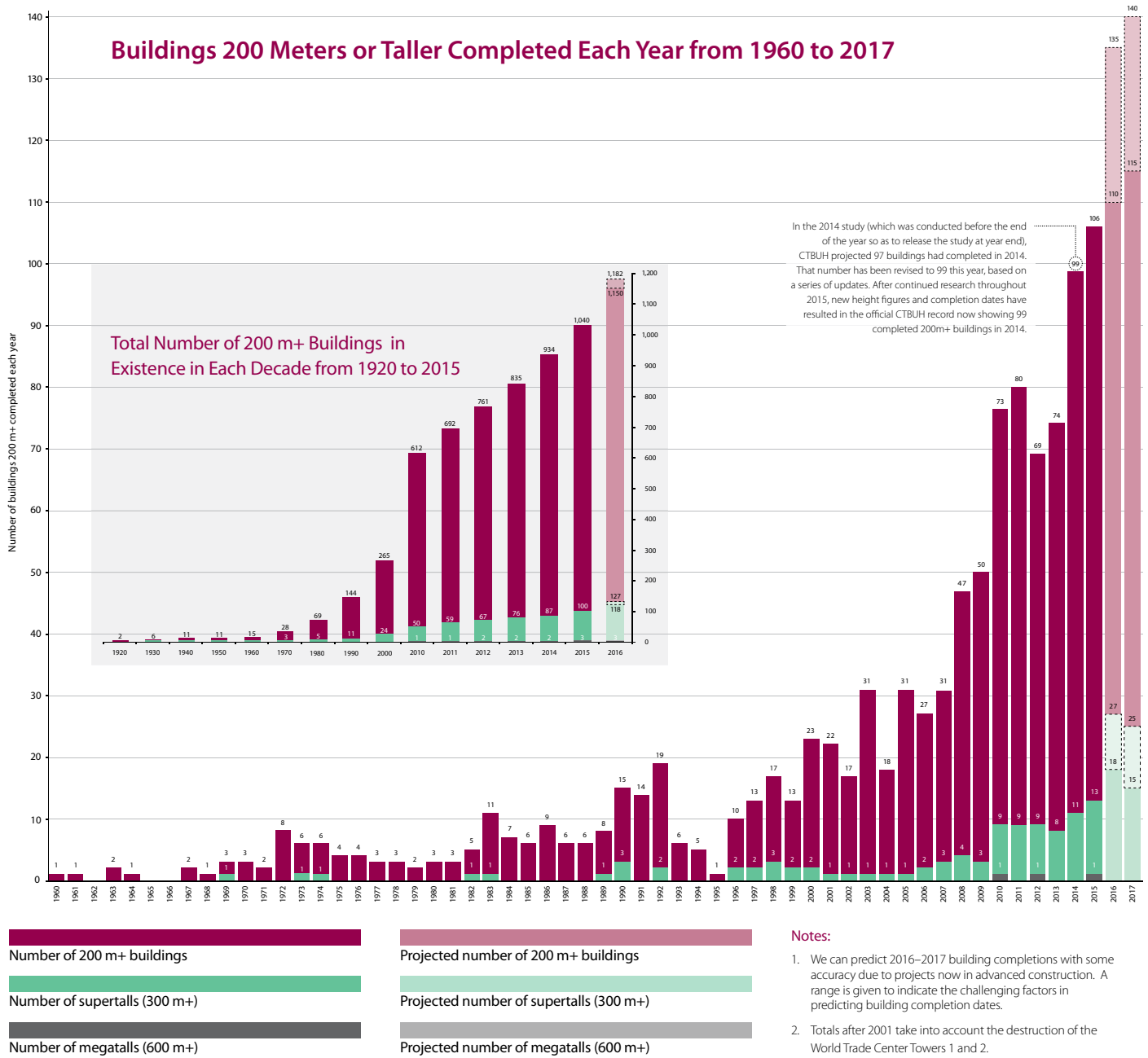


Figure 3. The amount of 200 m+ buildings completed each year from 1960 to 2015, with projections through 2017.

and Shenzhen tied for second place with five each. The total height of the buildings completed in Jakarta is 1,588 meters (see Figure 2).

Key Worldwide Market Snapshots of 2015

Asia (Not including Middle East)

Once again, Asia has drastically outperformed other regions, possessing 81 of the 106 completions for 2015, or 76%

percent of the total (see Figure 9). China has completed the most 200-meter-plus buildings (62) of any country in the world (see Figure 4), a feat that the country has achieved for eight years running. These completions represent 58% of the global 2015 total, but only a 2% increase over the country's previous record of 61 in 2014, marking the second year in what appears to be a considerable boom cycle for all three tiers of cities in China. Of the 29 Chinese cities with 200-meter-plus completions,

Nanjing, Nanning, and Shenzhen had the most with five apiece. The rapid urban growth that is enabling the construction of these towers is the topic of the CTBUH 2016 Conference, which will take place progressively across three Chinese cities: Shenzhen, Guangzhou, and Hong Kong. See more at: www.ctbuh2016.com

The tallest and most significant building completion of the year was Shanghai Tower (see Figure 12), a 632-meter skyscraper

Yearly 200 m+ Tall Building Completions

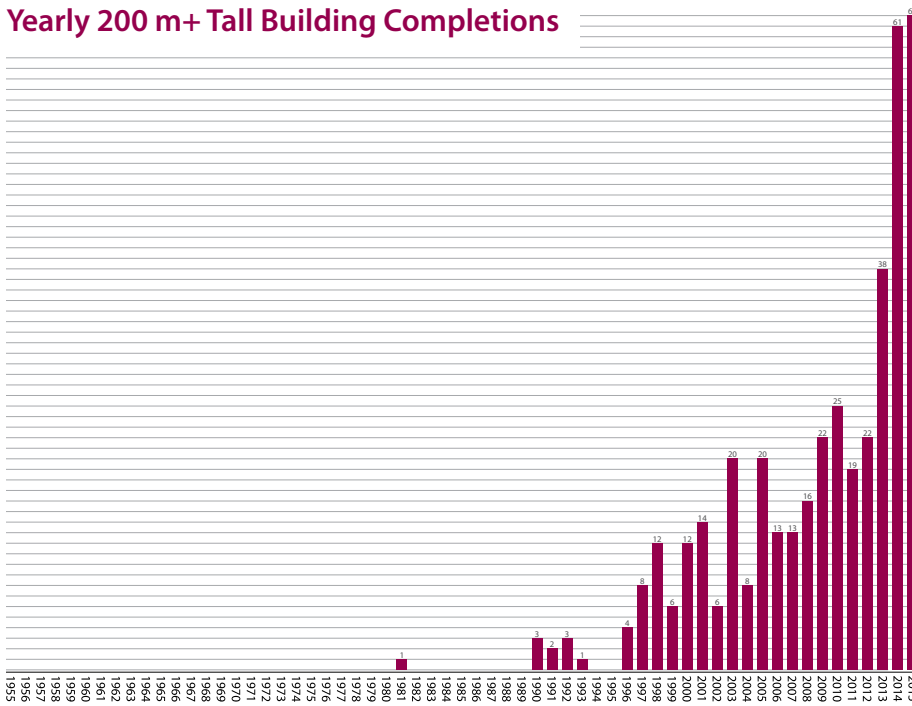


Figure 4. China. Current Total: 411

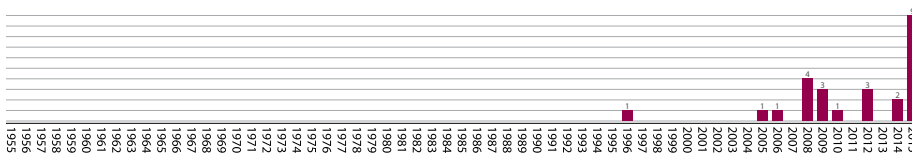


Figure 5. Indonesia. Current Total: 25

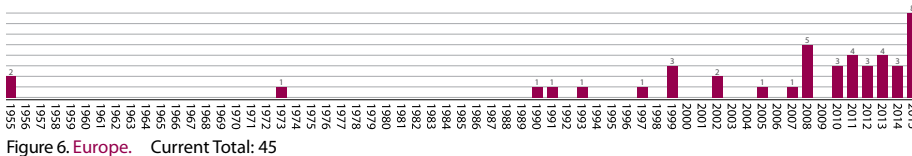


Figure 6. Europe. Current Total: 45



Figure 7. Middle East. Current Total: 128

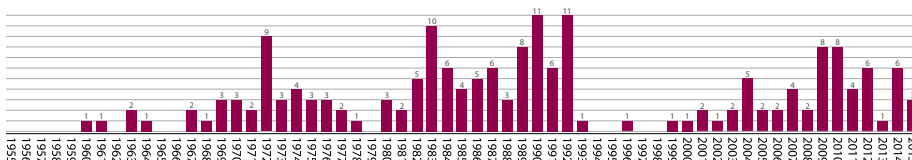


Figure 8. North America. Current Total: 191

located in close proximity to Jin Mao Tower and Shanghai World Finance Center in the Lujiazui Finance and Trade Zone. The tower is now the tallest building in China, the second-tallest building in the world, and the third building to achieve the “megatall” (600-plus meters) designation.

Indonesia had the second-most 200-meter-plus completions by country (nine, see Figure 5) – smashing its previous record of four in 2008 – seven of which are located in the capital of Jakarta, which had the most completions by city in 2015. The tallest building to complete in the city was Sahid Sudirman Center at 258 meters.

South Korea recorded three completions during 2015 – improving slightly over 2014, in which it had one. Two of the towers belong to a twin-tower complex in Incheon, both measuring 248 meters.

In an unusual turn, North Korea made the list this year following the completion of the 210-meter Mirae Scientists Street Residential Tower, which completed in under a year, having only begun construction in 2014.

Australia

Australia only had one completion in 2015 in the form of 568 Collins Street, a 224-meter mixed-use tower in Melbourne. With a number of towers under construction in the country and an even greater number of proposals in the works, the volume of skyscraper completions in Australia is expected to increase gradually over the coming years.

Central America

Despite its absence from the list in 2014, Central America made a comeback this year with four completions; two in Mexico and two in Panama. The tallest building in Central America to complete was the 235-meter Torre BBVA Bancomer in Mexico City, a tower employing an innovative braced megaframe that was featured in CTBUH Journal 2014 Issue II. Not often associated with tall buildings, Panama has completed 18 200-meter-plus buildings in

the past five years, while the United States has only completed 10.

Europe

While conversations about the appropriateness of tall buildings in historic European cities continued to transpire in places like London, the region at large saw the completion of eight 200-meter-plus towers in 2015, its highest annual total on record (see Figure 6). This upswing is due in part to the completion of four major developments in Moscow City, a high-rise commercial district in Russia that has transformed from a low-intensity site in the 1990s to an area that now boasts the highest concentration of tall buildings in Europe. The tallest of the 2015 completions here was the OKO – Residential Tower, a 354-meter skyscraper that was completed alongside the 224-meter OKO – Office Tower in the same complex. OKO – Residential Tower now stands at the tallest building in Europe, overtaking Mercury City Tower, which also resides in the Moscow City district.

The remaining completions in Europe were geographically distributed across the region, with single completions occurring in Yekaterinburg, Russia; Milan, Italy; Izmir, Turkey; and Lyon, France.

Middle East and Africa

The Middle East had nine completions in 2015, marking the first time since 2009 that the region had less than ten 200-meter-plus entries in a year (see Figure 7). As one might expect from the region’s most popular commerce and tourism destination, Dubai led the pack with four completions, while Abu Dhabi closed the year with three. For the third year in a row, the emirate of Abu Dhabi completed a supertall building, this time in the form of ADNOC (Abu Dhabi National Oil Company) Headquarters, which measures 342 meters in height and is unique for having a square arciform opening at its crown. The tower is the city’s second-tallest, coming in behind Burj Mohammed Bin Rashid, which completed in 2014 and was recognized by the CTBUH as the 2015 Best Tall Building Middle East & Africa.

Another notable completion in the region is the 270-meter Four Seasons Hotel in Manama, Bahrain, which was built on a manmade island in keeping with a bold master plan for the surrounding district.

North America

Despite having only three completions in 2015 (see Figure 8) – a 50% decrease from 2014, in which it had six – North America continues its trend of innovation and allure in the tall building industry. Just days before the end of 2015, December 23 to be exact, the first residents closed on units in 432 Park Avenue, meeting CTBUH criteria for completion – that the building become at least partially occupiable. The completion of this tower is indeed momentous, because it means that there are now officially 100 completed supertall buildings in the world. The tower now stands as the tallest all-residential building in the world, the third-tallest in North America, and the 14th-tallest worldwide. A lucky few attendees of the CTBUH 2015 Conference in New York participated in a Technical Tour of 432 Park Avenue, and even got to see its tuned mass damper in action given the day’s windy conditions.

Completions by Function

In 2015, the functional split for tall building completions appears to have remained relatively unchanged from 2014 (see Figure 10). That being said, all-office completions have hit another all-time record, with 52 buildings (49% of the total). Mixed-use buildings have also achieved impressive numbers, with 30 (28% of the total). In terms of all-residential completions, there were 20 in 2015 – two more than in 2014, representing nearly the same percentage of the total (19%) as last year.

Completions by Structural Material

In an interesting turn of events, 2015 saw a spike in the number of buildings completed with concrete structures – 52 out of 106 (49%, see Figure 11). This is a dramatic increase over 2014, when only 39 out of 99 were completed (39% of total). Indeed, greater showings from Europe

and Central America were the cause of this, as these regions have a greater tendency to build tall using this material. Equally interesting is the fact that 46 of the 48 composite completions were in Asia, where material availability, seismic requirements, and workforce specializations are such that

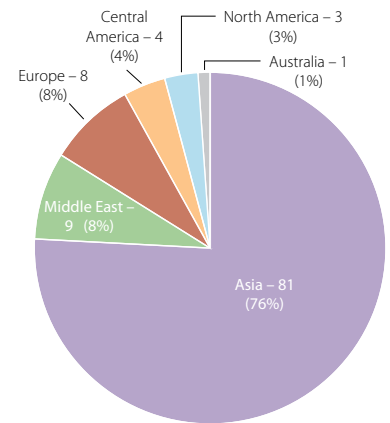


Figure 9. Tall buildings 200 meters or taller completed in 2015: By Region.

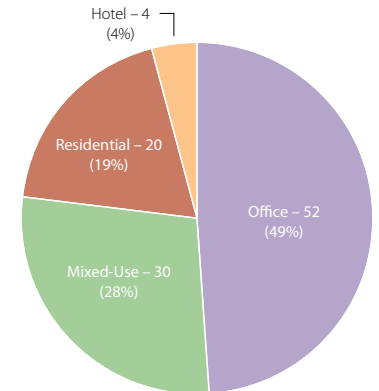


Figure 10. Tall buildings 200 meters or taller completed in 2015: By Function.

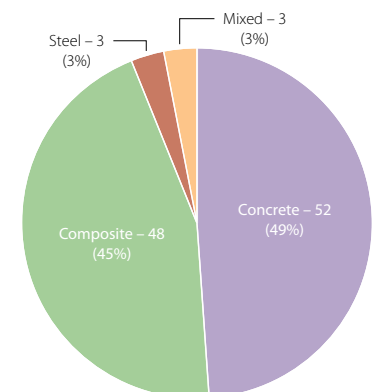
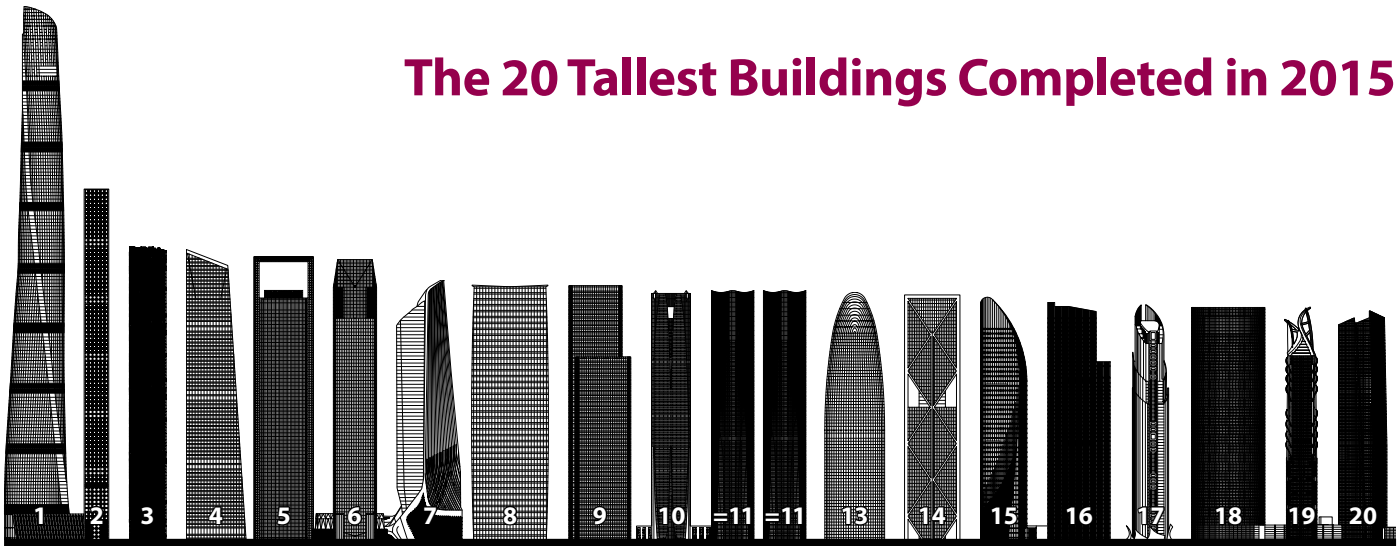


Figure 11. Tall Buildings 200 meters or taller completed in 2015: By Structural Material.

The 20 Tallest Buildings Completed in 2015



1 Shanghai Tower Shanghai, China 632 meters (2,073 ft)	2 432 Park Avenue New York City, USA 426 meters (1,396 ft)	3 OKO – Residential Tower Moscow, Russia 354 meters (1,160 ft)	4 Forum 66 Tower 1 Shenyang, China 351 meters (1,150 ft)	5 ADNOC Headquarters Abu Dhabi, UAE 342 meters (1,122 ft)	6 Chongqing World Financial Center Chongqing, China 339 meters (1,112 ft)	7 Nanjing International Youth Cultural Centre Tower 1 Nanjing, China 315 meters (1,032 ft)
8 Fortune Center Guangzhou, China 309 meters (1,015 ft)	9 Stalnaya Vershina Moscow, Russia 309 meters (1,013 ft)	10 Diwang International Fortune Center Liuzhou, China 303 meters (994 ft)	=11 Jiangxi Nanchang Greenland Central Plaza 1 Nanchang, China 303 meters (994 ft)	=11 Jiangxi Nanchang Greenland Central Plaza 2 Nanchang, China 303 meters (994 ft)	13 Greenland Puli Center Jinan, China 301 meters (988 ft)	14 Ilham Tower Kuala Lumpur, Malaysia 298 meters (978 ft)
15 Xiamen Shimao Straits Tower B Xiamen, China 295 meters (969 ft)	16 Kaisa Center Huizhou, China 288 meters (945 ft)	17 D1 Tower Dubai, UAE 284 meters (932 ft)	18 City of Lights C1 Tower Abu Dhabi, UAE 282 meters (926 ft)	19 Al Hekma Tower Dubai, UAE 282 meters (925 ft)	20 Eton Place Dalian Tower 2 Dalian, China 280 meters (917 ft)	

Figure 12. The 20 tallest buildings completed in 2015.



2015 Tallest #1: Shanghai Tower, Shanghai, 632 meters (public domain)



2015 Tallest #2: 432 Park Avenue, New York City, 426 meters © Macklowe Properties



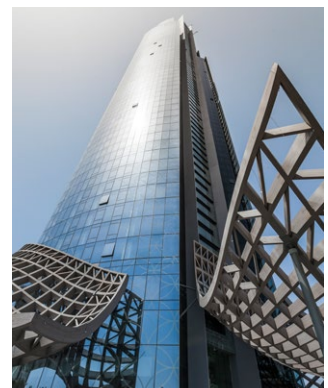
2015 Tallest #3: OKO - Residential Tower, Moscow, 354 meters © Boris Bochkarev



2015 Tallest #11: Jiangxi Nanchang Greenland Central Plaza, Nanchang, 303 meters © LV Heng-zhong



2015 Tallest #7: Nanjing International Youth Cultural Centre, Nanjing, 315 meters © Virgile Simon Bertrand



2015 Tallest #17: D1 Tower, Dubai, 284 meters © Enshaa

composite solutions are often the most desirable. Compare this to Europe and Central America, where concrete is often preferred due to its widespread availability and low cost when compared to steel. All-steel towers were very scarce in 2015, with only three 200-meter-plus completions around the globe. One of these is J57, a tower in Changsha, China that was built by Broad Sustainable Building (BSB) in only 19 days thanks to a CTBUH Innovation Award-winning modular construction technique that the company hopes to employ on a 202-story building known as Sky City.

The World's 100 Tallest Buildings: Impact of 2015

The number of buildings entering the World's 100 Tallest list has remained relatively static over the past four years, with 13 entering the list in 2015, 13 in 2014, 12 in 2013, and 13 in 2012. But this year is particularly noteworthy because it is the first year where every building in the list is a supertall (300 meters or higher). The shortest building on the list is now Aspire Tower in Doha, Qatar, which comes in at exactly 300 meters. The average height of buildings in the 100 Tallest list has thus increased to 357 meters, up from 350 in 2014 and over 70 meters higher than the 2000 average of 285 meters.

The number of mixed-use towers has increased by five since 2014, from 36 to 41, while losses occurred for every other category, mostly in residential and hotel. This transition is likely to continue as it becomes more common for mixed-use towers to feature a combination of hotel and residential functions.

In terms of structural material, 45 buildings are composite construction, compared to 39 in 2014. The number of concrete towers has fallen again, from 43 in 2014 to 39 in 2015. The number of all-steel structures in the 100 Tallest list continues to decline, down from 13 in 2014 to 11 in 2015.

Analysis

For the second consecutive year, records in 200-meter-plus completions and the construction of supertall buildings have been broken. Given that we project this trend to continue over the next couple of years, it seems that what started in 2014 as a post-recessionary recovery in key high-rise real estate markets has fully transitioned into a post-recessionary boom.

Despite an overall slowdown in the Chinese property market, which has taken hold of the country since 2013, it appears that this has yet to manifest itself in the construction of 200-meter-plus buildings. China continues to build more of these towers than any other country, and with over 300 such buildings under construction at the time of this report, it's plausible to assume that the country's momentum will continue in the near future. The country's long-term prospects are more uncertain. As the country continues to transition from a growth economy to a consumption economy – one that caters to the added buying power of its rising middle class – large-scale government-funded construction projects might begin to take a backseat. The overall cooling of the country's once red-hot economic performance could also have percolating effects on the number of high-rises built in the long-term.

The completion of the 632-meter Shanghai Tower is particularly noteworthy, not only for its emergence as the tallest building in China and the second-tallest building in the world, but for its effects on the global Top 10 rankings. Chicago's 442-meter Willis Tower (originally Sears Tower), once the world's tallest building, has been pushed out of the Top 10 for the first time since it completed in 1974. Willis Tower was among the Top 10 Tallest Buildings for 41 years, in which time the tower was overtaken by skyscrapers constructed primarily in Asia and the Middle East. Given the rapid development of urban centers in these regions and the new heights that are being realized by contemporary tall buildings, CTBUH data projects that it will be less than five years before Willis Tower also falls out of the Top 20 Tallest Buildings.

Following the completion of 432 Park Avenue in New York City, the world now has 100 skyscrapers over 300 meters in height and a record 13 of them were completed in 2015 alone. Supertall skyscrapers have been built at an astonishing rate over the past five years. In fact, the total number of supertalls has doubled from 50 to 100 since the end of 2010; whereas the first 50 took over 80 years to complete, from 1930 to 2010. Supertall construction is poised to remain strong into the future. According to CTBUH data, there are well over 100 supertall skyscrapers topped out or under construction that are scheduled to be completed in the next five to six years. That includes Jeddah Tower, which will become the world's tallest building and the first kilometer-high building upon completion. With supertall skyscrapers more common than ever, many look to the megatall (600-plus-meter) distinction as the new frontier for the world's tallest buildings. There are currently only three completed megatall buildings in the world, but that number is set to more than double in the coming years as four more – including Jeddah Tower – come online.

Thoughts on 2016

As we come off the heels of another record-breaking year, 2016 doesn't seem like it will be any different. We currently project the completion of between 110 and 135 buildings of 200 meter's height or greater. Perhaps even more staggering is the fact that 18 to 27 of these buildings are expected to be in the supertall range. If true, 2016 alone would see the global total of supertalls increase by 18% to 27%. Unsurprisingly perhaps, the majority of these will be located in Asia and the Middle East.

The tallest building set to complete in 2016 is Ping An Finance Center, which will take its place as the tallest building in Shenzhen and play host to the first networking reception of the CTBUH 2016 Conference in October. At its final height of 599 meters, the tower will symbolize a city that has witnessed unprecedented urban growth – from 30,000 people to approximately 12 million in only 35

All Buildings 200 meters or taller completed in 2015 (106 no)

Asia Australia Middle East North America Central America Europe

Rank	Building Name	Location	Floors	Height (m)	Rank	Building Name	Location	Floors	Height (m)
1	Shanghai Tower	Shanghai	128	632	54	Wanxiang City Tower 1	Hangzhou	50	230
2	432 Park Avenue	New York City	85	426	55	Modern Media Plaza 1	Suzhou	42	228
3	OKO – Residential Tower	Moscow	90	354	56	Taiping Finance Tower	Shenzhen	48	228
4	Forum 66 Tower 1	Shenyang	68	351	57	The Leaf	Abu Dhabi	57	228
5	ADNOC Headquarters	Abu Dhabi	76	342	58	OKO – Office Tower	Moscow	46	224
6	Chongqing World Financial Center	Chongqing	72	339	59	568 Collins Street	Melbourne	68	224
7	Nanjing International Youth Cultural Centre Tower 1	Nanjing	68	315	60	CSSD Plaza	Suzhou	47	222
8	Fortune Center	Guangzhou	68	309	61	Fuzhou IFC	Fuzhou	48	220
9	Stalnaya Vershina	Moscow	72	309	62	Furama Tower	Dalian	55	218
10	Diwang International Fortune Center	Liuzhou	75	303	63	Ying Li International Plaza T1	Chongqing	52	218
11	Jiangxi Nanchang Greenland Central Plaza 1	Nanchang	59	303	64	Qingxiu Wanda Mansion 1	Nanning	60	216
11	Jiangxi Nanchang Greenland Central Plaza 2	Nanchang	59	303	64	Qingxiu Wanda Mansion 4	Nanning	60	216
13	Greenland Pull Center	Jinan	61	301	66	Arady Residential Tower	Dubai	51	216
14	Ilham Tower	Kuala Lumpur	64	298	67	Naza Tower 1	Kuala Lumpur	50	216
15	Xiamen Shimao Straits Tower B	Xiamen	67	295	68	The Paramount	Panama City	59	214
16	Kaisa Center	Huizhou	66	288	69	Pabellon M	Monterrey	48	214
17	D1 Tower	Dubai	80	284	70	Tianhebei Tower	Guangzhou	55	212
18	City of Lights C1 Tower	Abu Dhabi	62	282	71	Mirae Scientists Street Residential Tower	Pyongyang	53	210
19	Al Hekma Tower	Dubai	64	282	72	BDO Corporate Center Ortigas	Mandaluyong	47	210
20	Eton Place Dalian Tower 2	Dalian	62	280	73	Excellence Houhai Financial Center	Shenzhen	46	210
21	Riverside Century Plaza Main Tower	Wuhu	66	275	73	Financial Street Nankai Center	Tianjin	46	210
22	Bohai Bank Tower	Tianjin	55	270	73	Suning Ruicheng Phase 1 E06 #1	Nanjing	46	210
23	Four Seasons Hotel	Manama	50	270	73	Suning Ruicheng Phase 1 E07 #2	Nanjing	46	210
24	Tongde Kunming Plaza	Kunming	54	269	77	Suning Ruicheng Phase 1 E08 #2	Nanjing	34	210
25	Jiangxi Nanchang Greenland Zifeng Tower	Nanchang	56	268	78	Moi Tiandi	Taiyuan	-	210
26	Heilan Fortune Center	Jiangyin	59	258	79	SOCAR Tower	Baku	40	209
26	Sahid Sudirman Center	Jakarta	59	258	80	U-Residence 2 Karawaci	Tangerang	59	209
28	Ningbo Global Shipping Plaza	Ningbo	52	257	81	Iset Tower	Yekaterinburg	52	209
29	Nanjing International Youth Cultural Centre Tower 2	Nanjing	61	255	82	CCCC South Headquarters	Guangzhou	50	208
30	Raffles Hotel	Jakarta	52	253	83	Seaview Condominium @ Green Bay Pluit Tower J	Jakarta	48	208
31	Chengjiejyi Center	Huizhou	-	253	83	Seaview Condominium @ Green Bay Pluit Tower K	Jakarta	48	208
32	5 Taian Dao	Tianjin	45	251	83	Seaview Condominium @ Green Bay Pluit Tower L	Jakarta	48	208
33	Hunter Douglas International Plaza	Guiyang	59	250	83	Seaview Condominium @ Green Bay Pluit Tower M	Jakarta	48	208
34	Xiamen Shimao Straits Tower A	Xiamen	59	250	87	Summer Palace Tower A	Shenyang	41	208
35	Yunfu Tower	Wuxi	53	249	88	J57	Changsha	57	208
36	Ahuja Towers	Mumbai	54	249	89	Allianz Tower	Milan	50	207
37	Artwin I	Incheon	72	248	90	HSBC Tower Soho Mall	Panama City	41	207
37	Artwin II	Incheon	72	248	91	Chongqing Plaza T1	Chongqing	40	207
39	Jia Fa Centre	Chongqing	52	247	92	Sky	New York City	61	206
40	Evolution Tower	Moscow	55	246	93	Vietcombank Tower	Ho Chi Minh	40	206
41	Sinarmas MSIG Tower	Jakarta	48	245	94	Vanke Jinyu Central Tower 1	Fuzhou	64	203
42	Western International Finance Center Conrad Hotel	Chengdu	56	241	95	AVIC Plaza	Xiamen	48	202
43	Jin Wan Plaza 2	Tianjin	58	240	95	Zijin Mining Plaza	Xiamen	48	202
44	Arady Office Tower	Dubai	49	237	97	Ichon Rex Tower A	Seoul	56	201
45	The Headquarters Business Park	Jeddah	55	236	98	Tunjungan Plaza 5	Surabaya, Java	50	201
46	Poly Nanhua Plaza 1	Changsha	57	235	99	Pinnacle One	Chengdu	47	200
47	Torre BBVA Bancomer	Mexico City	50	235	99	Qingxiu Wanda Plaza Office Tower 1	Nanning	47	200
48	ICE Condominiums at York Centre 2	Toronto	67	234	99	Qingxiu Wanda Plaza Office Tower 2	Nanning	47	200
49	CASC International Center North Tower	Shenzhen	50	232	99	Qingxiu Wanda Plaza Office Tower 3	Nanning	47	200
50	1818 Center	Wuhan	42	232	103	Hainan Tower 1	Haikou	45	200
51	SEG-Hitachi Industrial Park Redevelopment Tower 1A	Shenzhen	65	230	104	Central Spring	Nanchang	40	200
51	SEG-Hitachi Industrial Park Redevelopment Tower 2A	Shenzhen	65	230	104	Folkart Tower B	Izmir	40	200
53	New Victory Hotel Tower	Lanzhou	51	230	106	Tour Incity	Lyon	39	200

years since becoming China's first Special Economic Zone in 1979.

Elsewhere in China, Goldin Finance 117 is set to complete in Tianjin at a height of 597 meters. The tower will accommodate a mixture of uses including office space along the bottom floors and a luxury hotel in the upper floors. The surrounding Goldin Metropolitan development, which will continue to be implemented in the coming years, will serve to activate this centrally located tower by comprising a large high-end residential area, entertainment venues, two international standard polo fields, training facilities, retail outlets, and green spaces.

See below for the 10 tallest buildings set to complete in 2016.

Projected 10 Tallest Buildings in 2016

Asia Middle East Europe

Rank	Building Name	Location	Floors	Height (m)
1	Ping An Finance Center	Shenzhen	115	599
2	Goldin Finance 117	Tianjin	128	597
3	Lotte World Tower	Seoul	123	555
4	Guangzhou CTF Finance Centre	Guangzhou	111	530
5	Marina 101	Dubai	101	427
6	Eton Place Dalian Tower 1	Dalian	80	383
7	Federation Towers - Vostok Tower	Moscow	95	374
8	Dalian International Trade Center	Dalian	86	370
9	The Address The BLVD	Dubai	72	368
10	Hon Kwok City Center	Shenzhen	80	329

For more information, please contact Jason Gabel, CTBUH Communications Manager at: jgabel@ctbuh.org



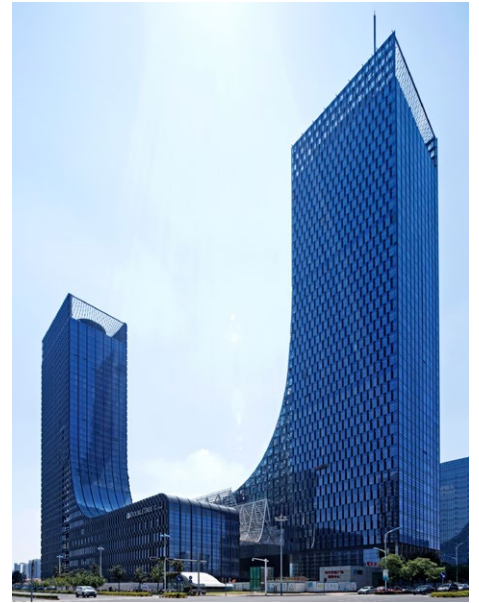
2015 Tallest #25: Jiangxi Nanchang Greenland Zifeng Tower, Nanchang, 268 meters © LV Heng-zhong



2015 Tallest #30: Raffles Hotel (with DBS Bank Tower), Jakarta, 253 meters © CallisonRTKL



2015 Tallest #48: ICE Condominiums at York Centre, Toronto, 234 meters © Ben Rahn, A-Frame Studio LTD



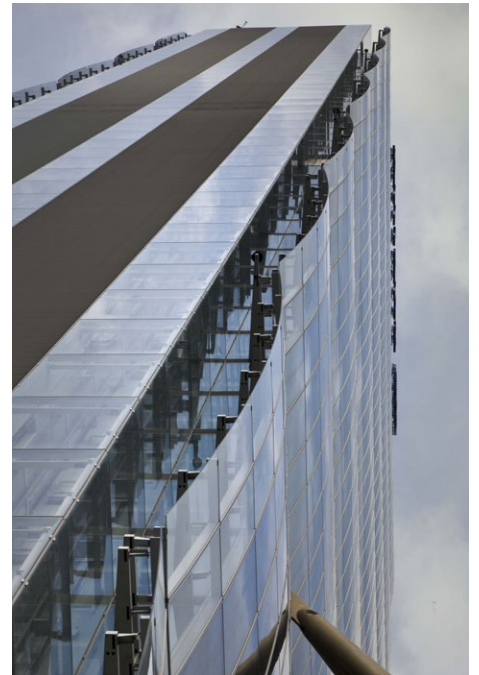
2015 Tallest #55: Modern Media Plaza, Suzhou, 228 meters © Shanghai Pdoing Vision & Culture Communication Co., Ltd. – Hu Wenkit



2015 Tallest #40: Evolution Tower, Moscow, 246 meters © GORPROJECT



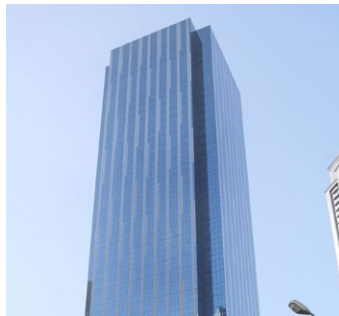
2015 Tallest #56: Taiping Finance Tower, Shenzhen, 228 meters © NIKKEN SEKKEI LTD



2015 Tallest #89: Allianz Tower, Milan, 207 meters © Alessandra Chemollo



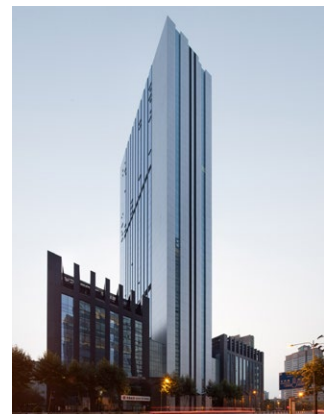
2015 Tallest #45: The Headquarters Business Park, Jeddah, 236 meters © Batley Partners International



2015 Tallest #72: BDO Corporate Center Ortigas, Mandaluyong, 210 meters © Pathfinder



2015 Tallest #88: J57, Changsha, 208 meters © BROAD Group



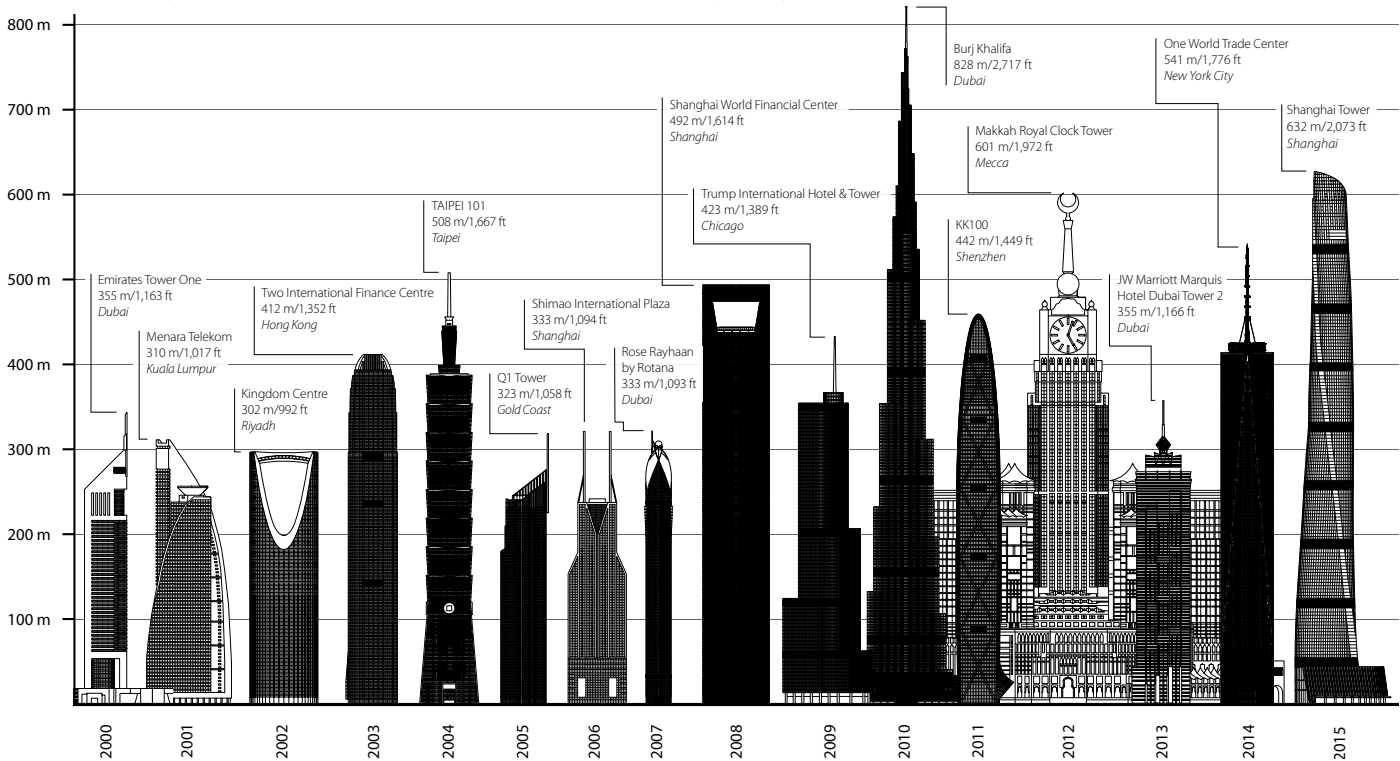
2015 Tallest #99: Pinnacle One, Chengdu, 200 meters © John Madden

The Global Tall Building Picture: Impact of 2015

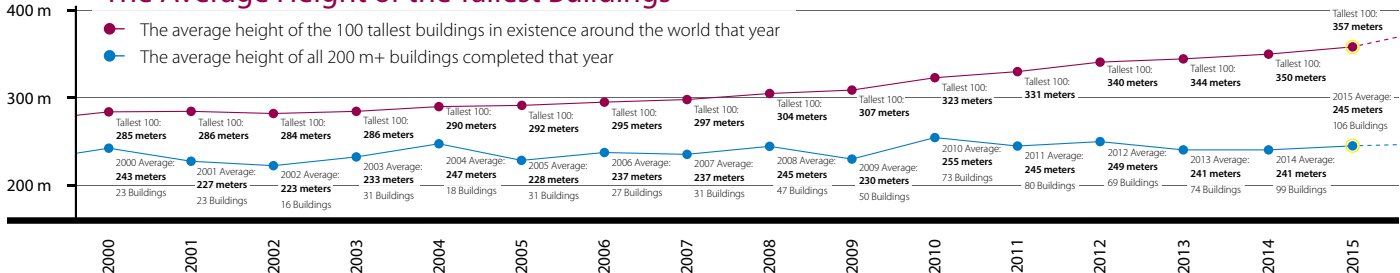
In 2015, 106 buildings of 200 meters' height or greater were completed, setting a new record for global tall building construction. This brings the total number of 200-meter-plus buildings in the world to 1,040, exceeding 1,000 for the first time in history and marking a 392% increase from the year 2000, when only 265 existed. Impressively, 13 of these buildings were supertalls (buildings of 300 meters or higher), the highest annual total on record.

World's Tallest Building Completed Each Year

Starting with the year 2000, these are the tallest buildings completed globally each year.



The Average Height of the Tallest Buildings



1995 = 13
2000 = 24
2005 = 29
2010 = 50
2015 = 100 Completed Supertalls

There are now 100 supertall skyscrapers in the world following the completion of 432 Park Avenue; the total number of supertalls has doubled from 50 to 100 in just five years

Shanghai Tower, Shanghai, at 632 meters, was the tallest building to complete in 2015, and is now the second-tallest building in the world and the tallest in China

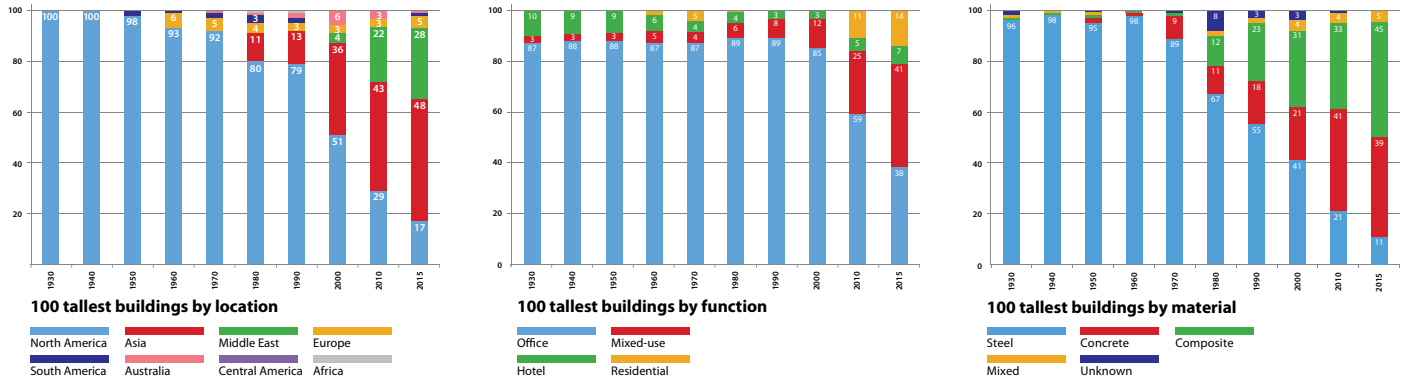
Asia – 76%

For the third year in a row, at least 75% of all 200 m+ building completions were located in Asia

- 76% in 2015
- 77% in 2014
- 76% in 2013

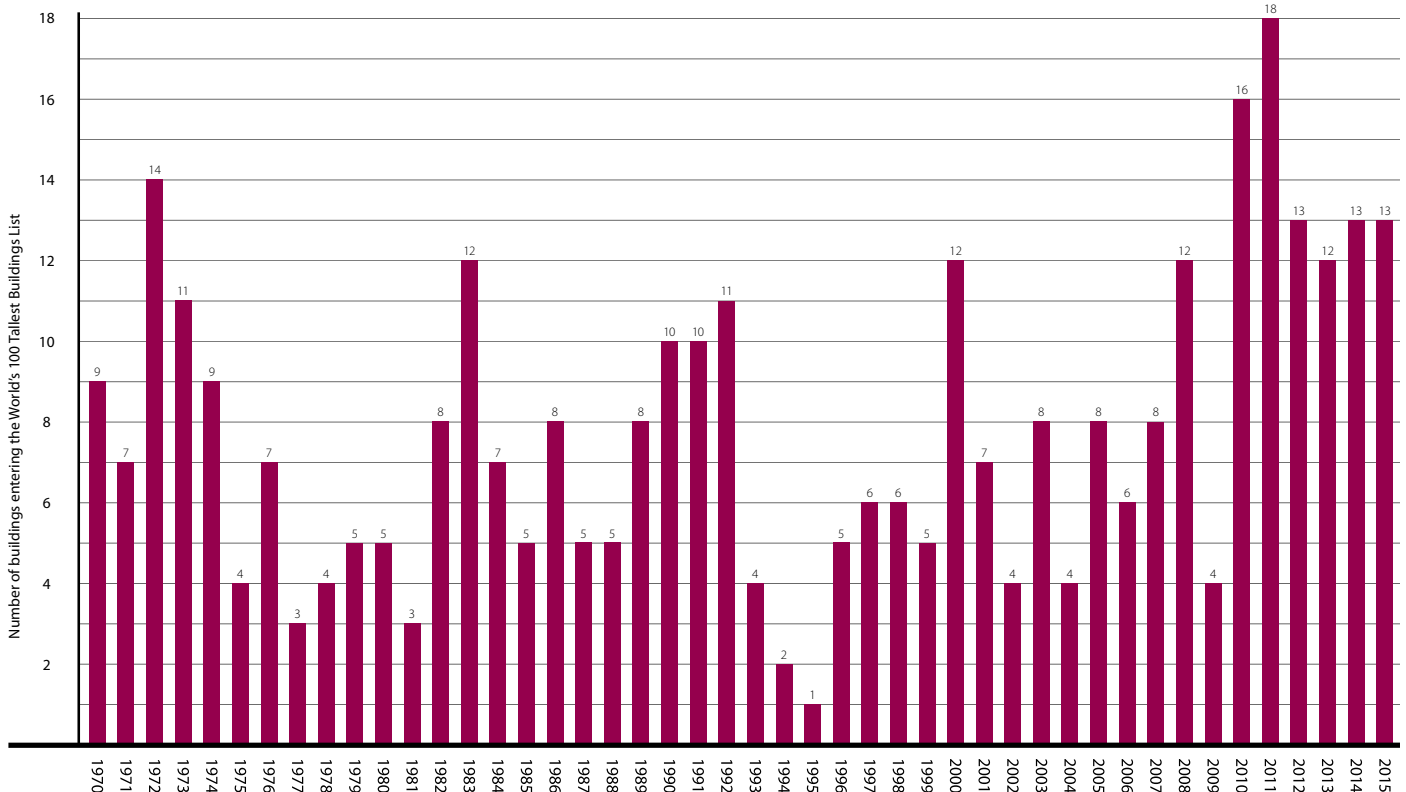
World's Tallest 100: Analysis

As the graphs below show, we continue to see major shifts towards Asia, mixed-use function, and composite structures.



Number of Buildings Entering the World's 100 Tallest by Year

A total of 13 buildings made it into the global 100 Tallest list in 2015, a number that has remained relatively static over the past four years. With 18 to 27 supertalls projected to complete in 2016, it may not be long before we see the 2011 record of 18 entries broken.



Europe saw eight 200 m+ completions in 2015, the region's most of all time; Among the eight was the 354-meter OKO - Residential Tower, Moscow, the current tallest in Europe

52

There were 52 buildings completed with concrete structures in 2015, a dramatic increase over 2014, when only 39 were completed

Jakarta had a big year in 2015, completing seven 200 m+ buildings, more than any other city, the 258-meter Sahid Sudirman Center was the tallest of these seven