



FMI's North American Engineering and Construction Outlook

Third Quarter 2019 Report

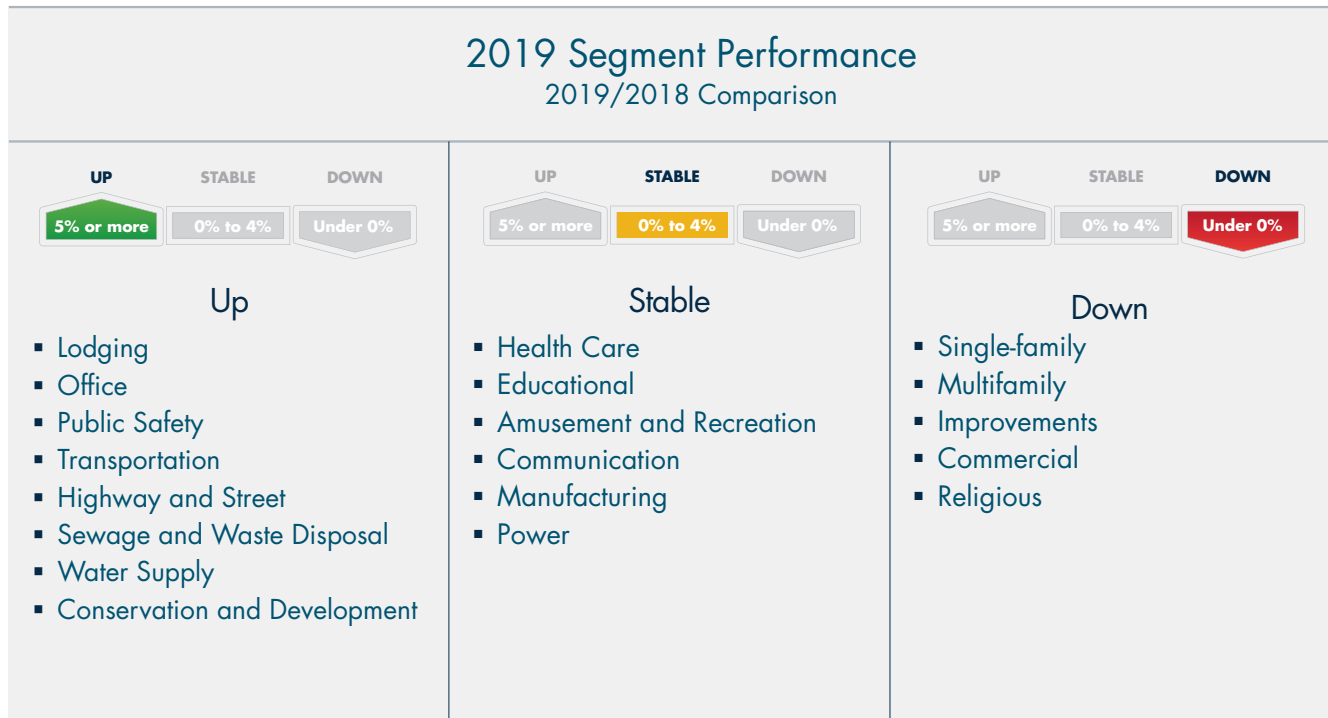


FMI U.S. Engineering and Construction Outlook

Third Quarter 2019 Report

Key Takeaways

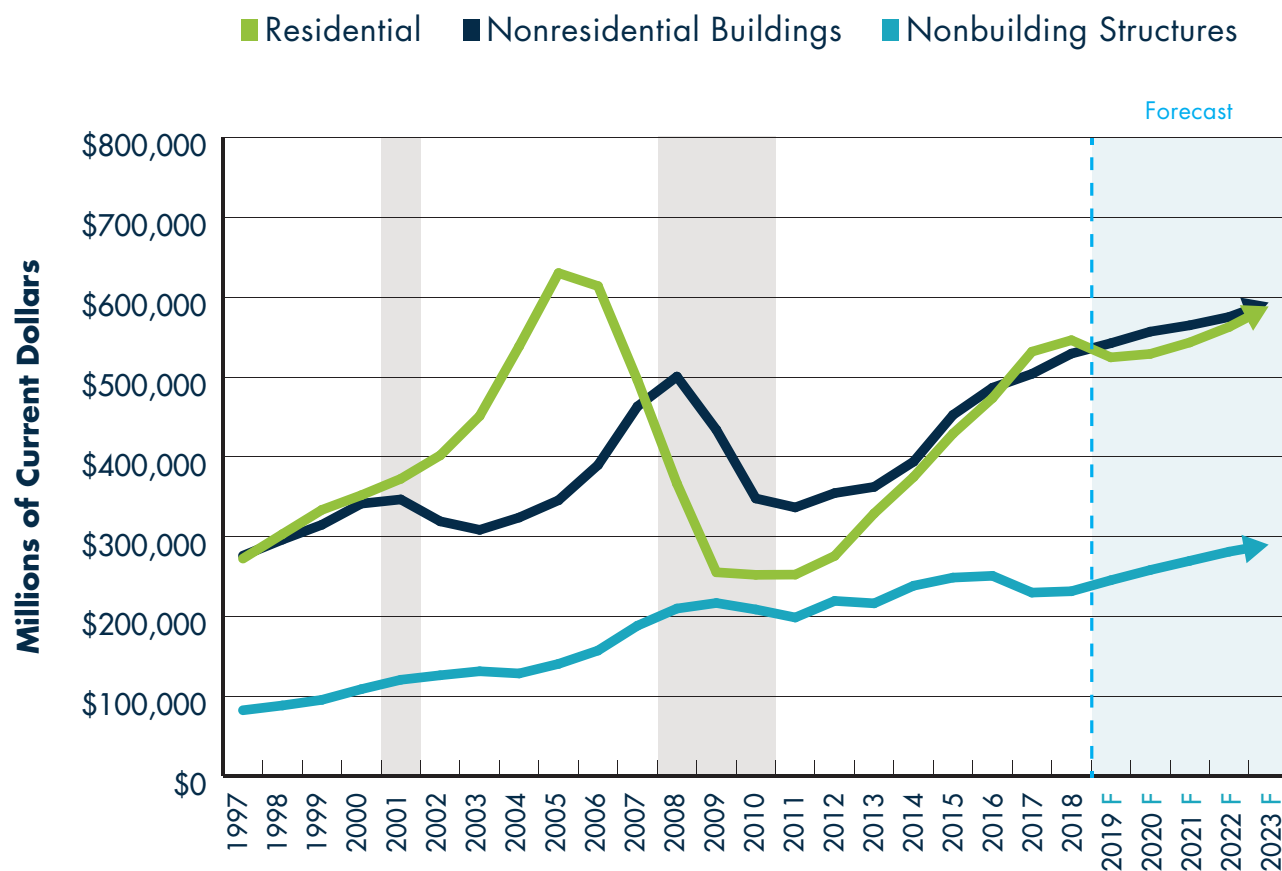
- Total engineering and construction spending for the U.S. is forecast to end up <1 percent in 2019, compared to up 3 percent in 2018.



- Spending growth in 2019 is expected to be led by public investment across both nonresidential buildings and nonresidential structures. Current top-performing segments forecast in 2019 include conservation and development (+10 percent), water supply (+9 percent), public safety (+9 percent), transportation (+8 percent) and sewage and waste disposal (+8 percent). Forecast bottom-performing segments in 2019 include religious (-6 percent), single-family residential (-5 percent), residential improvements (-3 percent) and commercial (-3 percent).
- Only one segment was upgraded into our growth category through the second half of 2019, lodging. On the other hand, commercial was the only segment downgraded, from stable to down. Despite stable fundamentals, all three residential segments continue to show weakness and are expected to end this year below 2018 spending levels.
- FMI's Nonresidential Construction Index (NRCI) at 50.4 is the lowest score recorded in more than seven years. An index score over 50 suggests improving or expanding industry conditions.

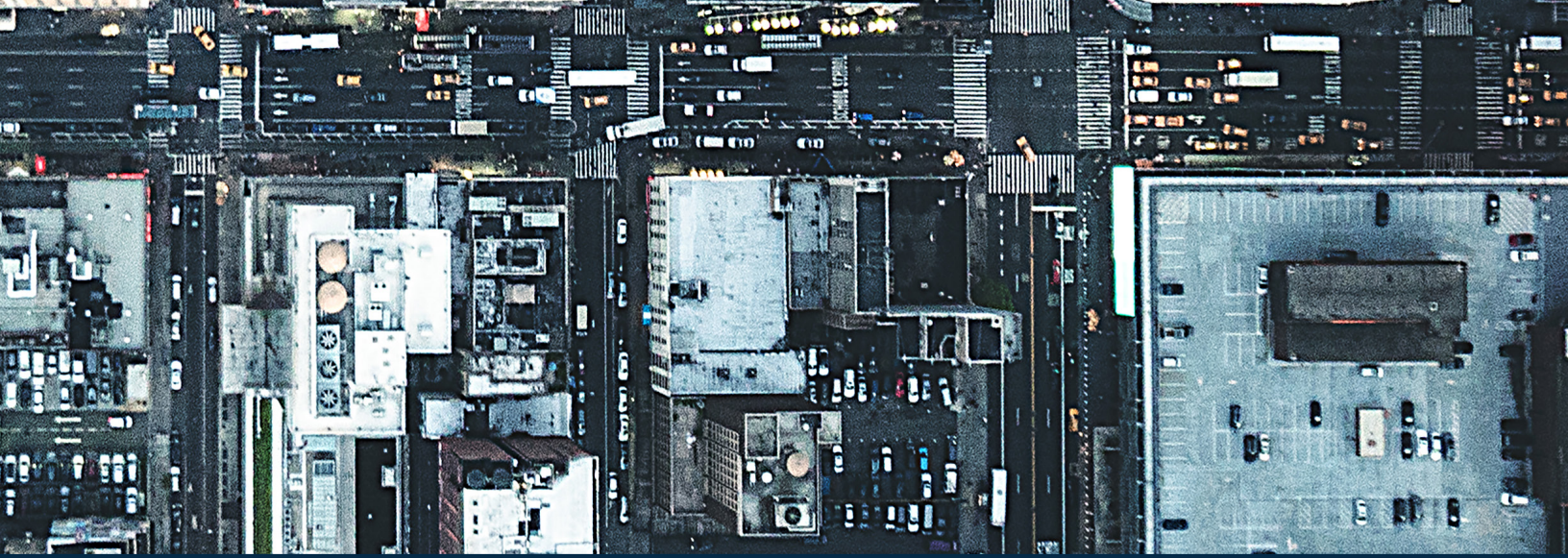


Total Construction Put in Place Estimated for the U.S.

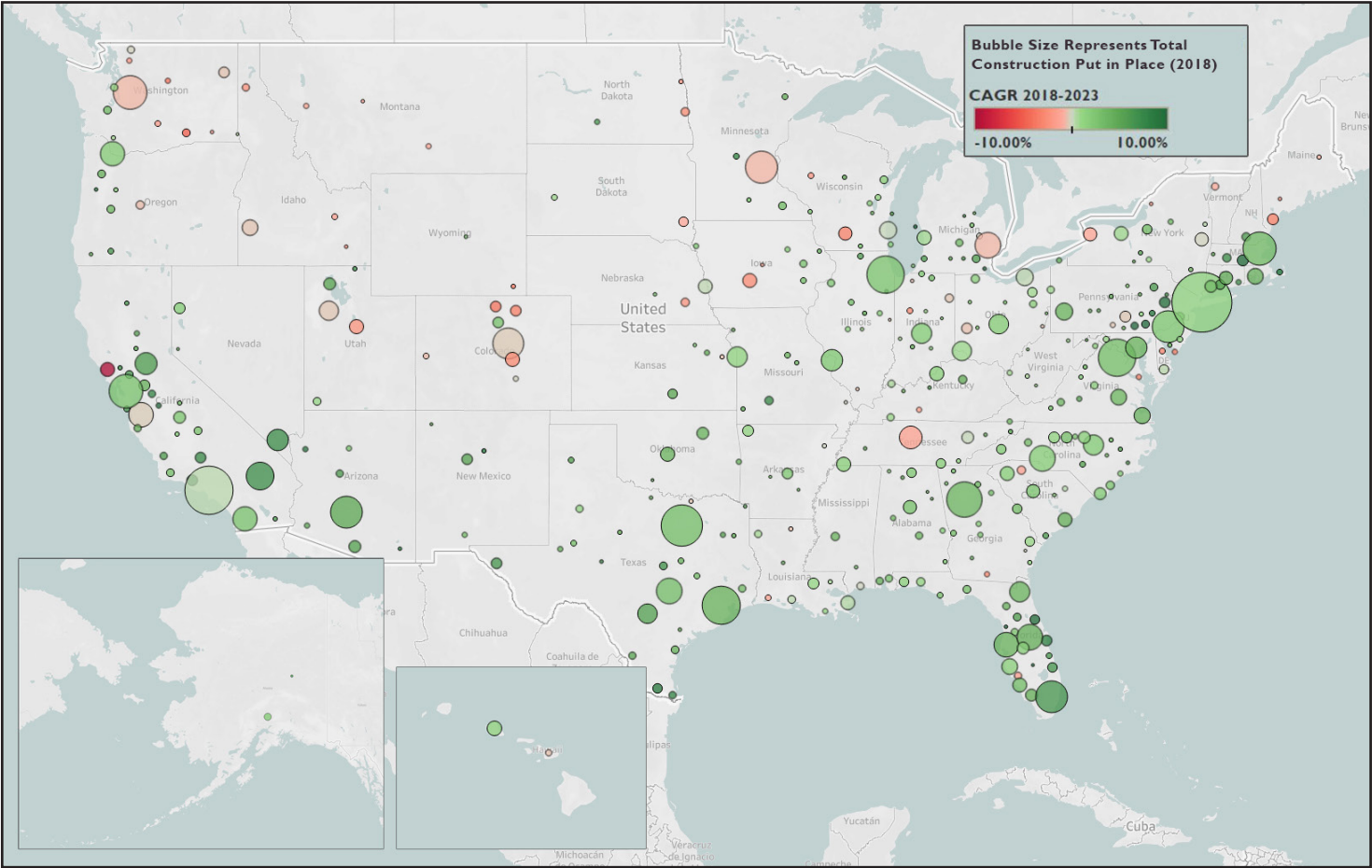


Throughout the value of construction put in place includes the cost of architectural and engineering work.

Source: U.S. Census and FMI Forecast



Total Construction Put in Place 2018 and Forecast Growth (2018-2023 CAGR) by Metropolitan Statistical Area



Source: U.S. Census and FMI Forecast

RESIDENTIAL CONSTRUCTION PUT IN PLACE

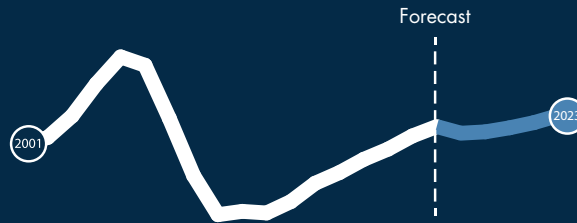
Single-Family Residential

Drivers: Unemployment rate, core CPI, income, mortgage rate, home prices, housing starts, housing permits

DWN 5%

\$276 Billion

2019/2018 Comparison



- Economic climate is expected to remain rocky into the 2020 election cycle
- Affordability and availability issues prevail despite falling interest rates and rising wages
- Builders challenged in delivering lower-cost starter homes

2019	DWN 5%	\$276 Billion
2020	STA 1%	\$279 Billion
2021	STA 3%	\$287 Billion
2022	STA 4%	\$298 Billion
2023	UP 5%	\$313 Billion

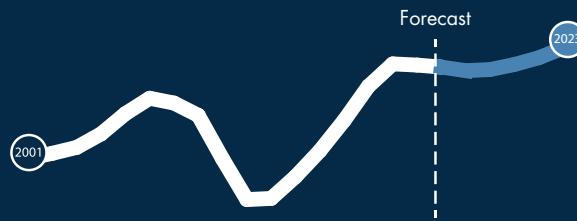
Multifamily Residential

Drivers: Unemployment rate, core CPI, income, mortgage rate, home prices, housing starts, housing permits

DWN 2%

\$64 Billion

2019/2018 Comparison



- Foreign direct investment in real estate has slowed
- Urbanization and generational buyer trends continue to drive long-term opportunities
- Buyers and renters are increasingly transient in both living and in employment obligations

2019	DWN 2%	\$64 Billion
2020	STA 1%	\$65 Billion
2021	STA 3%	\$67 Billion
2022	STA 4%	\$69 Billion
2023	UP 5%	\$73 Billion

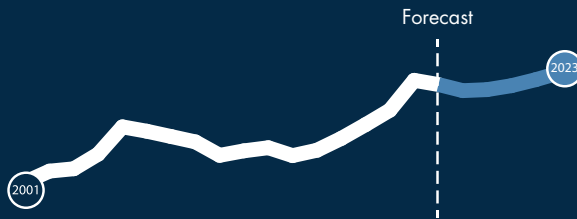
Improvements

Drivers: Unemployment rate, core CPI, income, mortgage rate, home prices, housing starts, housing permits

DWN 3%

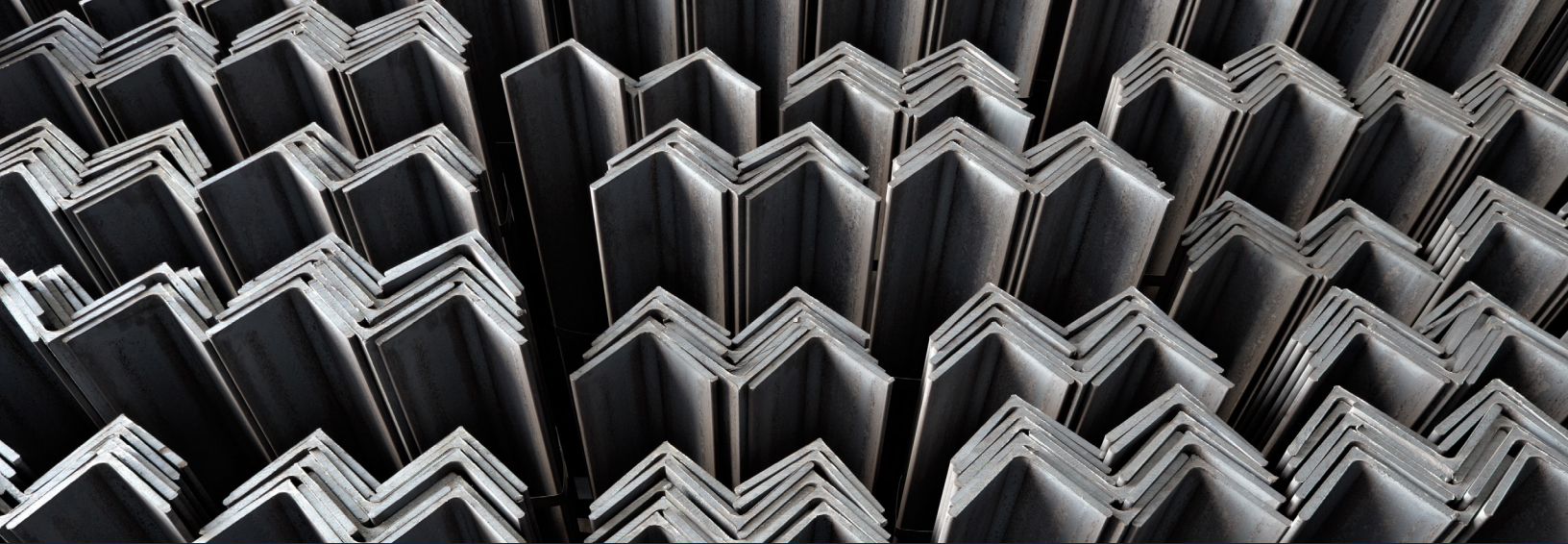
\$184 Billion

2019/2018 Comparison



- Home price appreciation has moderated in many major metropolians, balancing investment-led decisions
- Lower borrowing costs are expected to support increased refinance and improvements
- Aging inventories on top of increasing rental and flipping activity; rental turnover is slowly declining

2019	DWN 3%	\$184 Billion
2020	STA 1%	\$185 Billion
2021	STA 2%	\$189 Billion
2022	STA 3%	\$196 Billion
2023	STA 4%	\$203 Billion



Nonresidential Construction Index (NRCI) Q1 2011 to Q4 2019

(Scores above 50 indicate expansion; scores below 50 indicate contraction)

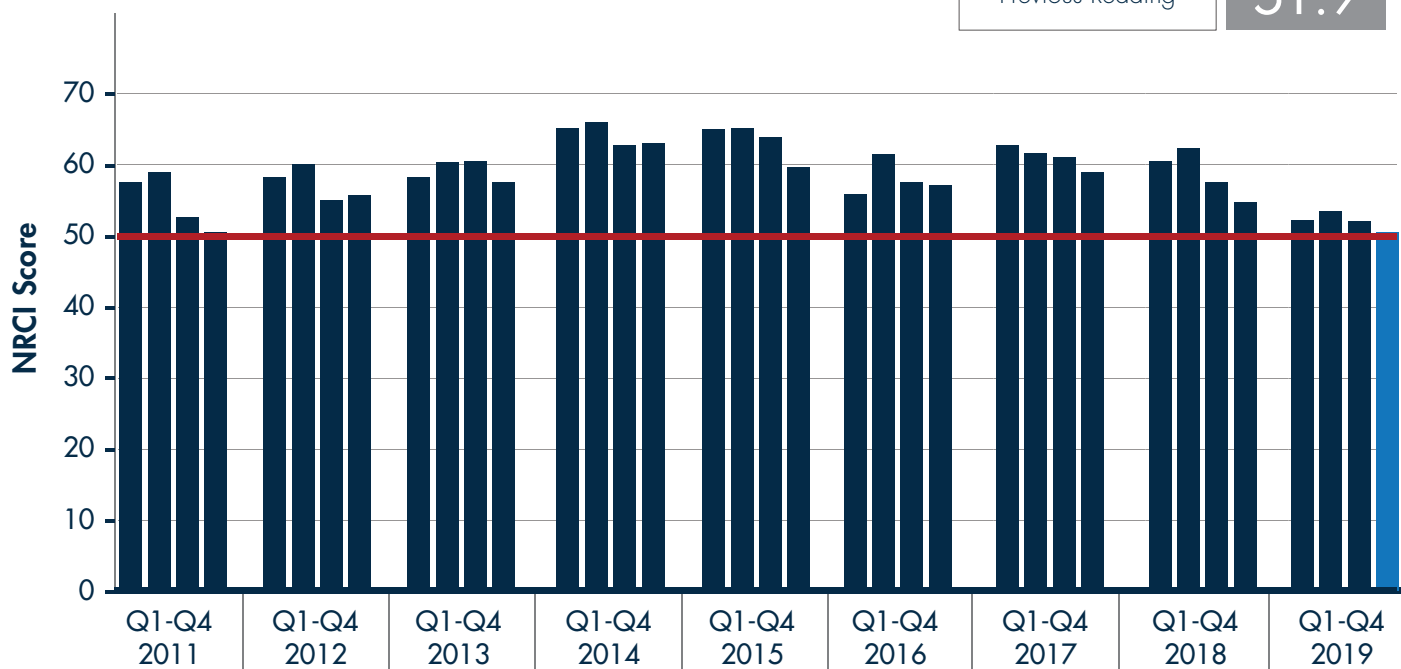
NRCI scores are based on a diffusion index where scores above 50 represent improving or expanding industry conditions, a score of 50 represents conditions remaining the same, and a score below 50 represents worse conditions than last quarter (or contraction).

Current NRCI Reading
for Q4 2019

50.4

Previous Reading

51.9



The data in the NRCI is presented as a sampling of construction industry executives voluntarily serving as panelists for this FMI survey. Responses are based on their experience and opinions, and the analysis is based on FMI's interpretation of the aggregated results.

NONRESIDENTIAL CONSTRUCTION PUT IN PLACE

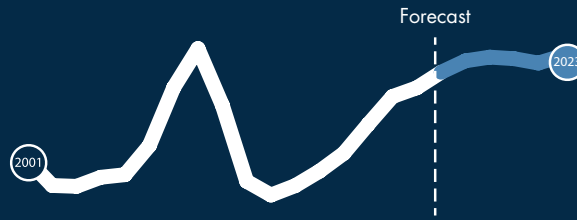
Lodging

Drivers: Occupancy rate, RevPAR, average daily rate, room starts

UP **7%**

\$34 Billion

2019/2018 Comparison



- Business travel, RevPar and occupancy rates are expected to remain healthy through 2020
- Occupancy is starting to balance alongside ongoing added supply and slowing employment growth
- Another round of casinos in the pipeline in addition to significant transportation projects indicate support for long-term elevated spending in select markets

2019	UP 7%
	\$34 Billion
2020	STA 2%
	\$34 Billion
2021	DWN 1%
	\$34 Billion
2022	DWN 2%
	\$33 Billion
2023	STA 4%
	\$35 Billion

Office

Drivers: Office vacancy rate, unemployment rate

UP **6%**

\$79 Billion

2019/2018 Comparison



- Office vacancy rates at lowest levels in 18 years
- Downtown markets are experiencing large increases in rents
- Widespread labor constraints and slowed employment growth are expected to weigh on future spending
- Demand for data center investment continues to expand rapidly

2019	UP 6%
	\$79 Billion
2020	STA 3%
	\$81 Billion
2021	DWN 1%
	\$81 Billion
2022	DWN 2%
	\$79 Billion
2023	STA 3%
	\$82 Billion

Commercial

Drivers: Retail sales, CPI, income, home prices, housing starts, housing prices

DWN **3%**

\$92 Billion

2019/2018 Comparison



- Continuing rise in e-commerce with big-box home improvement retailers announcing major investments
- Demand for warehouse and distribution continues to expand with facilities servicing a mix of core trades routes and last-mile logistics; strong U.S. dollar supports increased imports
- Brick-and-mortar retail continues to evolve and shift into mixed markets, including travel, leisure and entertainment

2019	DWN 3%
	\$92 Billion
2020	DWN 2%
	\$91 Billion
2021	DWN 1%
	\$89 Billion
2022	STA 1%
	\$90 Billion
2023	UP 5%
	\$95 Billion

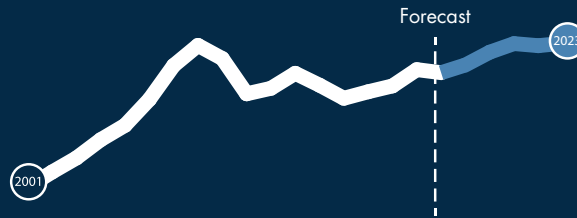
Health Care

Drivers: Population change, population change in ages 75 and up, uninsured population, government spending, nonresidential structure investment

STA **3%**

\$44 Billion

2019/2018 Comparison



- Increasing private investor interest in medical office buildings and specialty care facilities
- Within the next decade all baby boomers will be 65 or older
- New technologies and services (e.g., telehealth and wearables) are expected to temper demand for long-term care facilities and traditional hospitals

2019	STA 3%	\$44 Billion
2020	UP 5%	\$46 Billion
2021	STA 3%	\$47 Billion
2022	DWN 1%	\$47 Billion
2023	STA 1%	\$47 Billion

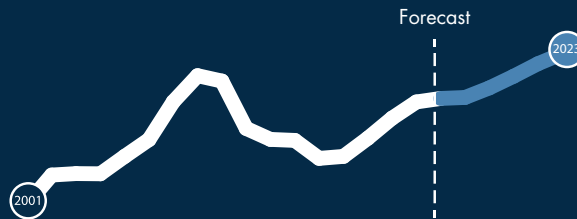
Educational

Drivers: Population change younger than age 18, population change ages 18-24, stock markets, government spending, nonresidential structure investment

STA **0%**

\$98 Billion

2019/2018 Comparison



- Maintenance needs and backlogs are outpacing tax revenues and local bonding support
- Increasing percentage of the U.S. population under 18 years old
- K-12 spending growth expected to outpace college/university
- Safety becoming a core element of facility design and demand for renovation expenditures

2019	STA 0%	\$98 Billion
2020	STA 3%	\$101 Billion
2021	STA 4%	\$105 Billion
2022	STA 4%	\$109 Billion
2023	STA 3%	\$112 Billion

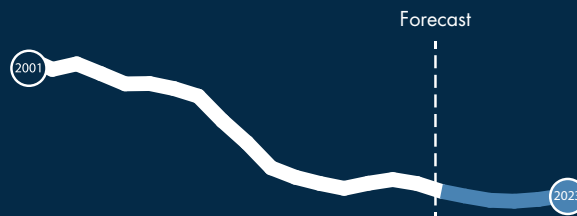
Religious

Drivers: GDP, population, income, personal savings

DWN **6%**

\$3 Billion

2019/2018 Comparison



- Lean design and delivery teams are combining more community/gathering spaces with a return to value-led traditional architecture
- Increased wages and income levels bolster industry revenue growth
- Declining share of Americans donating to religious organizations alongside declining attendance over time

2019	DWN 6%	\$3 Billion
2020	DWN 6%	\$3 Billion
2021	DWN 1%	\$3 Billion
2022	STA 3%	\$3 Billion
2023	UP 5%	\$3 Billion

Public Safety

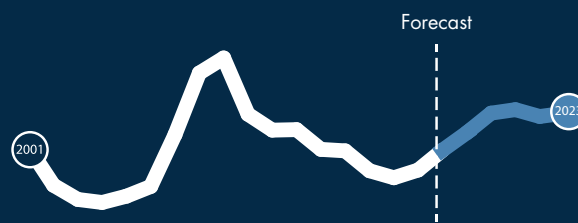
Drivers: Population, government spending, incarceration rate, nonresidential structure investment

UP **9%**

\$10 Billion

2019/2018 Comparison

- Rising tax revenues and local bond support
- High-growth metropolitans are in need of updated facilities and infrastructure
- National crime rates are trending downward



2019	UP 9%	\$10 Billion
2020	UP 9%	\$11 Billion
2021	STA 2%	\$11 Billion
2022	DWN 3%	\$11 Billion
2023	STA 1%	\$11 Billion

Amusement and Recreation

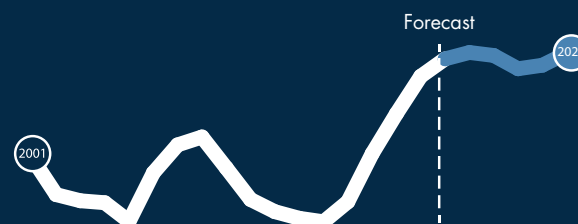
Drivers: Income, personal savings rate, unemployment rate, employment

STA **2%**

\$28 Billion

2019/2018 Comparison

- Rising employment, business travel and transportation infrastructure support continued investment
- Demand for sports and convention centers moderates into 2020
- Smaller-scale investments look to available retail space for opportunities
- Second wave of large casinos appears in planning and development stages



2019	STA 2%	\$28 Billion
2020	DWN 1%	\$28 Billion
2021	DWN 4%	\$27 Billion
2022	STA 1%	\$27 Billion
2023	STA 3%	\$28 Billion

Transportation

Drivers: Population, government spending, transportation funding

UP **8%**

\$55 Billion

2019/2018 Comparison

- Urbanization, e-commerce, high business spending and an increasingly geographically flexible workforce are all trends driving demand for increased connectivity
- Expect a growing number of megaprojects in airport and transit systems through the forecast period
- Addressing urban crowding is a means to continue attraction (and investment) in large, high-growth metropolitans



2019	UP 8%	\$55 Billion
2020	UP 8%	\$60 Billion
2021	UP 7%	\$64 Billion
2022	UP 6%	\$68 Billion
2023	STA 2%	\$70 Billion

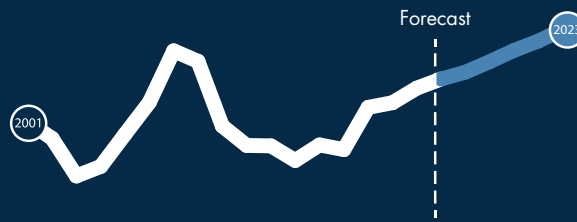
Communication

Drivers: Population, security/regulation standards, private investment, innovation/technology investment

STA **3%**

\$25 Billion

2019/2018 Comparison



- Led by Verizon, fifth-generation (5G) infrastructure is being deployed rapidly across major metropolitans
- Current outline of T-Mobile and Sprint merger would further accelerate 5G rollout while also reshaping the wireless industry
- Bandwidth and fiber needs remain high; providers are working to bring new capacity online in efforts to keep up with the public demand

2019	STA 3%	\$25 Billion
2020	STA 4%	\$26 Billion
2021	STA 4%	\$28 Billion
2022	STA 4%	\$29 Billion
2023	STA 4%	\$30 Billion

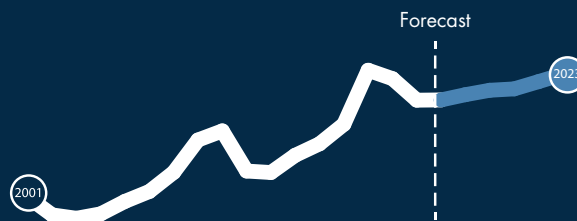
Manufacturing

Drivers: PMI, industrial production, capacity utilization, durable goods orders, manufacturing inventories

STA **3%**

\$73 Billion

2019/2018 Comparison



- Trade tensions, new tariffs and oil price volatility continue to generate uncertainty, resulting in wavering consumer sentiment
- Increased business investment tied to domestic oil and gas production and chemical manufacturing, especially along the Gulf Coast
- Continued softening in industrial production expected into 2020; consumer spending and business inventories are up

2019	STA 3%	\$73 Billion
2020	STA 3%	\$75 Billion
2021	STA 1%	\$75 Billion
2022	STA 4%	\$78 Billion
2023	STA 4%	\$81 Billion

NONBUILDING STRUCTURES CONSTRUCTION PUT IN PLACE

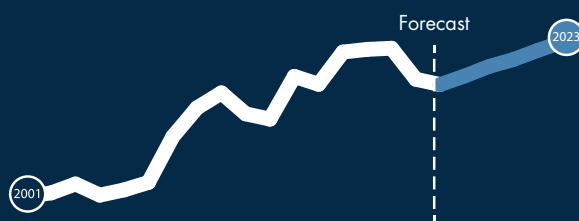
Power

Drivers: Population, industrial production, government spending

UP **5%**

\$98 Billion

2019/2018 Comparison



- Pipeline activity will remain active well into 2020 (and beyond); significant investments will continue to face opposition in addition to mounting risk related to our trade climate
- Targeted renewable energy goals should drive significant investment in both generation and connectivity of those sources
- Trends toward electrification (e.g., electric cars) are increasing both metropolitan and suburban infrastructure requirements

2019	UP	5%	\$98 Billion
2020	UP	5%	\$103 Billion
2021	STA	4%	\$106 Billion
2022	STA	4%	\$111 Billion
2023	STA	4%	\$115 Billion

Highway and Street

Drivers: Population, government spending, nonresidential structure investment

UP **6%**

\$97 Billion

2019/2018 Comparison



- Expanding state and local economies have led to increased funding sources; overall growth is driven by a handful of the largest states (e.g. California's SB1)
- Efforts are underway to repeal a \$7.6 billion federal funding rescission scheduled for mid-2020, the rescission could potentially impact contracting authority available to states nationwide
- A 2020 expiration of the Fixing America's Surface Transportation, or FAST Act, the current multiyear federal funding and authorization bill, is expected to gain attention of political platforms in the upcoming presidential election

2019	UP	6%	\$97 Billion
2020	UP	5%	\$102 Billion
2021	UP	5%	\$107 Billion
2022	STA	4%	\$111 Billion
2023	STA	27%	\$113 Billion

Sewage and Waste Disposal

Drivers: Population, industrial production, government spending

UP **8%**

\$26 Billion

2019/2018 Comparison



- Passage of America's Water Infrastructure Act in late 2018 and reauthorization of the Water Infrastructure Finance and Innovation Act (WIFIA) provide a substantial boost in funding
- Residential needs and technology advancements will drive overall demand

2019	UP	8%	\$26 Billion
2020	STA	4%	\$27 Billion
2021	UP	5%	\$28 Billion
2022	UP	6%	\$30 Billion
2023	STA	4%	\$31 Billion

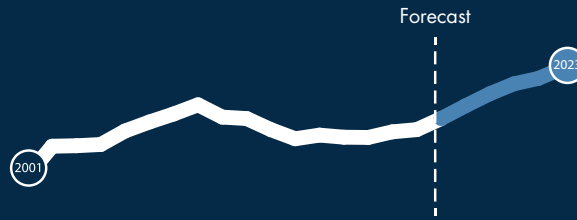
Water Supply

Drivers: Population, industrial production, government spending

UP **9%**

\$17 Billion

2019/2018 Comparison



- Passage of America's Water Infrastructure Act in late 2018 and reauthorization of the Water Infrastructure Finance and Innovation Act (WIFIA) provide a substantial boost in funding
- Recent introduction of the Water Quality Protection and Jobs Creation Act of 2019 further supports ongoing clean water supply infrastructure spending

2019	UP 9%
	\$17 Billion
2020	UP 8%
	\$18 Billion
2021	UP 6%
	\$19 Billion
2022	STA 3%
	\$19 Billion
2023	UP 6%
	\$21 Billion

Conservation and Development

Drivers: Population, government spending

UP **10%**

\$9 Billion

2019/2018 Comparison



- USACE spending is being aided from various sources, including a recent 2019 Disaster Relief bill, the 2019 federal spending package and the 2018 Consolidated Appropriations Bill
- The Senate recently approved hikes for USACE's 2020 spending appropriations, reversing the deep cuts previously found in the Trump Administration's proposal, while also likely extending negotiations
- Trump administration repeals 2015 Clean Water Rule which determines permitting requirements

2019	UP 10%
	\$9 Billion
2020	UP 6%
	\$10 Billion
2021	UP 5%
	\$10 Billion
2022	STA 4%
	\$11 Billion
2023	UP 5%
	\$11 Billion

Construction Put in Place Estimated for the United States

Millions of Current Dollars

3rd Quarter 2019 Forecast (based on Q2 2019 Actuals)

	2014	2015	2016	2017	2018	2019E	2020F	2021F	2022F	2023F
RESIDENTIAL BUILDINGS										
Single-family	194,091	221,683	242,939	270,365	289,855	276,037	278,873	287,302	298,048	312,795
Multifamily	46,250	58,686	66,835	66,404	65,670	64,372	64,772	66,598	69,055	72,579
Improvements*	134,519	148,857	163,913	194,986	190,611	184,250	185,312	189,407	195,671	203,021
Total Residential Buildings	374,860	429,226	473,687	531,755	546,136	524,659	528,957	543,307	562,775	588,395
NONRESIDENTIAL BUILDINGS										
Lodging	16,738	22,012	27,077	28,660	31,496	33,576	34,245	33,967	33,168	34,521
Office	46,582	56,013	67,907	68,685	74,450	78,925	81,485	80,777	79,374	81,688
Commercial	62,841	66,977	78,696	87,626	95,420	92,454	90,761	89,473	90,477	94,533
Health Care	38,647	39,665	40,574	43,120	42,642	43,848	45,845	47,183	46,858	47,242
Educational	79,681	85,346	91,629	96,685	97,777	98,082	101,069	104,711	108,620	111,787
Religious	3,386	3,598	3,752	3,586	3,262	3,060	2,888	2,850	2,926	3,078
Public Safety	9,437	8,505	8,177	8,539	9,468	10,285	11,204	11,367	11,047	11,200
Amusement and Recreation	16,773	20,527	23,652	26,569	27,924	28,423	28,190	27,153	27,428	28,369
Transportation	42,043	45,106	43,339	46,137	51,446	55,405	59,901	64,324	68,359	69,687
Communication	17,298	21,691	22,179	23,696	24,645	25,357	26,452	27,624	28,595	29,800
Manufacturing	60,645	83,143	79,633	70,682	70,782	72,969	74,807	75,377	78,381	81,456
Total Nonresidential Buildings	394,071	452,583	486,615	503,985	529,312	542,384	556,848	564,805	575,232	593,360
NONBUILDING STRUCTURES										
Power	110,089	111,495	112,067	95,951	93,176	97,607	102,566	106,165	110,885	115,225
Highway and Street	84,743	91,701	93,187	89,620	91,124	96,530	101,656	106,574	110,730	112,513
Sewage and Waste Disposal	23,173	24,599	24,151	22,901	23,931	25,748	26,641	28,091	29,715	30,822
Water Supply	13,380	13,353	13,940	14,168	15,317	16,643	17,898	18,939	19,499	20,566
Conservation and Development	7,310	7,735	7,745	7,464	8,253	9,060	9,639	10,097	10,500	11,043
Total Nonbuilding Structures	238,695	248,883	251,090	230,104	231,801	245,588	258,400	269,867	281,329	290,170
Total Put in Place	\$1,007,626	\$1,130,692	\$1,211,392	\$1,265,844	\$1,307,249	\$1,312,631	\$1,344,204	\$1,377,979	\$1,419,336	\$1,471,925

*Improvements includes additions, alterations and major replacements. It does not include maintenance and repairs.

Construction Put in Place Estimated for the United States

Change From Prior Year - Current Dollar Basis

3rd Quarter 2019 Forecast (based on Q2 2019 Actuals)

	2014	2015	2016	2017	2018	2019E	2020F	2021F	2022F	2023F
RESIDENTIAL BUILDINGS										
Single-family	13%	14%	10%	11%	7%	-5%	1%	3%	4%	5%
Multifamily	32%	27%	14%	-1%	-1%	-2%	1%	3%	4%	5%
Improvements*	10%	11%	10%	19%	-2%	-3%	1%	2%	3%	4%
Total Residential Buildings	14%	15%	10%	12%	3%	-4%	1%	3%	4%	5%
NONRESIDENTIAL BUILDINGS										
Lodging	24%	32%	23%	6%	10%	7%	2%	-1%	-2%	4%
Office	23%	20%	21%	1%	8%	6%	3%	-1%	-2%	3%
Commercial	18%	7%	17%	11%	9%	-3%	-2%	-1%	1%	4%
Health Care	-5%	3%	2%	6%	-1%	3%	5%	3%	-1%	1%
Educational	1%	7%	7%	6%	1%	0%	3%	4%	4%	3%
Religious	-6%	6%	4%	-4%	-9%	-6%	-6%	-1%	3%	5%
Public Safety	-1%	-10%	-4%	4%	11%	9%	9%	1%	-3%	1%
Amusement and Recreation	10%	22%	15%	12%	5%	2%	-1%	-4%	1%	3%
Transportation	7%	7%	-4%	6%	12%	8%	8%	7%	6%	2%
Communication	-3%	25%	2%	7%	4%	3%	4%	4%	4%	4%
Manufacturing	15%	37%	-4%	-11%	0%	3%	3%	1%	4%	4%
Total Nonresidential Buildings	9%	15%	8%	4%	5%	2%	3%	1%	2%	3%
NONBUILDING STRUCTURES										
Power	18%	1%	1%	-14%	-3%	5%	5%	4%	4%	4%
Highway and Street	4%	8%	2%	-4%	2%	6%	5%	5%	4%	2%
Sewage and Waste Disposal	3%	6%	-2%	-5%	4%	8%	3%	5%	6%	4%
Water Supply	-2%	0%	4%	2%	8%	9%	8%	6%	3%	5%
Conservation and Development	23%	6%	0%	-4%	11%	10%	6%	5%	4%	5%
Total Nonbuilding Structures	10%	4%	1%	-8%	1%	6%	5%	4%	4%	3%
Total Put in Place	11%	12%	7%	4%	3%	0%	2%	3%	3%	4%

*Improvements includes additions, alterations and major replacements. It does not include maintenance and repairs.



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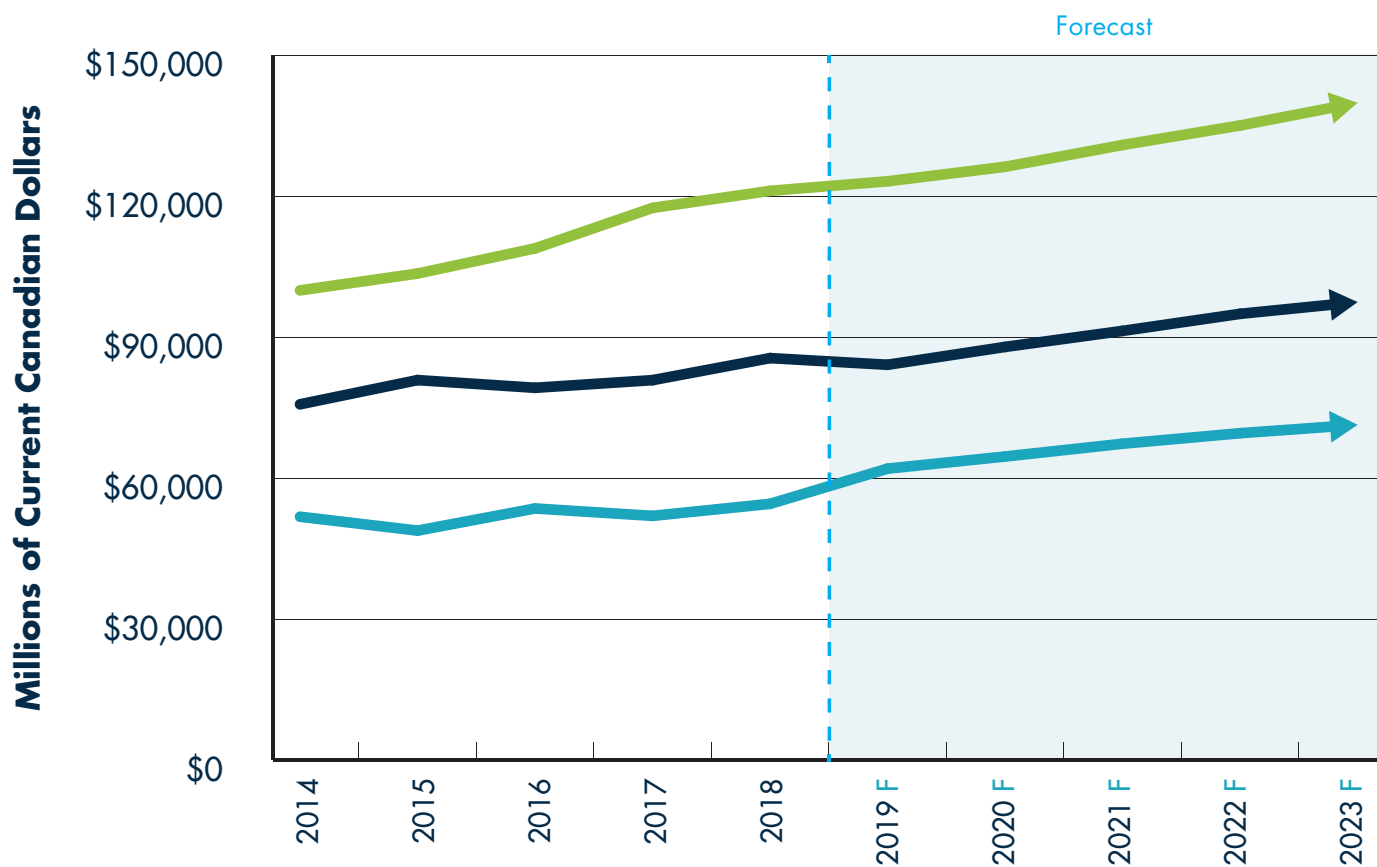
2019 Segment Performance 2019/2018 Comparison

UP 5% or more	STABLE 0% to 4%	DOWN Under 0%
<p>Up</p> <ul style="list-style-type: none"> Conservation and Development Power Public Safety Sewage and Waste Disposal Water Supply 	<p>Stable</p> <ul style="list-style-type: none"> Commercial Highway and Street Improvements Manufacturing Multifamily Religious Transportation 	<p>Down</p> <ul style="list-style-type: none"> Amusement and Recreation Communication Educational Health Care Lodging Office Single Family



Total Construction Put in Place Estimated for Canada

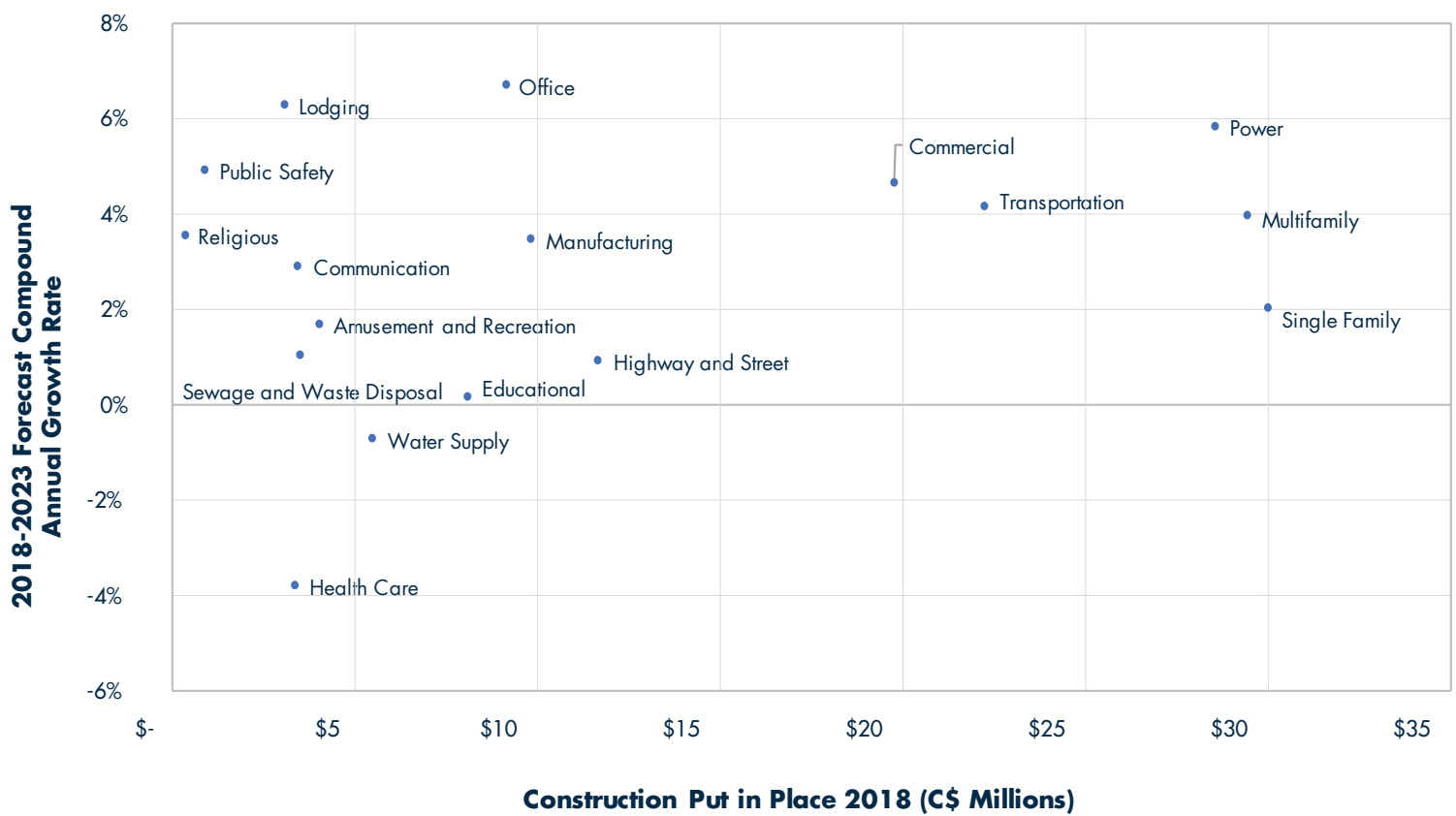
■ Residential ■ Nonresidential Buildings ■ Nonbuilding Structures



Source: Statistics Canada and FMI Forecast



Total Construction Put in Place Estimated for Canada



Source: Statistics Canada and FMI Forecast

Construction Put in Place Estimated for Canada

Millions of Current Canadian Dollars

3rd Quarter 2019 Forecast (based on Q2 2019 Actuals)

	2014	2015	2016	2017	2018	2019E	2020F	2021F	2022F	2023F
RESIDENTIAL BUILDINGS										
Single-family	26,398	25,945	27,599	30,377	30,729	29,981	30,938	31,421	31,724	32,491
Multifamily	21,802	24,235	26,146	28,195	29,413	29,435	28,941	30,888	32,438	34,392
Improvements*	51,770	53,373	55,163	58,946	61,013	63,765	66,390	68,599	70,894	73,006
Total Residential Buildings	99,970	103,552	108,908	117,517	121,154	123,181	126,269	130,908	135,056	139,889
NONRESIDENTIAL BUILDINGS										
Lodging	2,487	3,113	3,177	2,998	3,080	3,070	3,198	3,572	3,739	3,916
Office	9,214	10,092	9,050	8,817	9,177	9,129	10,846	10,671	10,913	11,827
Commercial	17,913	18,904	18,505	18,456	19,262	19,757	20,548	21,896	22,964	23,681
Health Care	3,694	3,124	2,557	3,492	3,615	3,368	3,346	3,286	3,103	2,885
Educational	6,460	7,585	8,373	8,641	9,373	8,096	8,047	8,086	8,159	8,147
Religious	327	324	320	323	341	352	357	377	393	404
Public Safety	699	964	975	793	812	899	985	1,018	1,057	1,090
Amusement and Recreation	3,350	3,772	4,257	4,520	4,728	4,013	4,276	4,286	4,316	4,291
Transportation	19,444	20,445	20,698	20,477	21,901	22,212	22,953	24,419	25,581	26,142
Communication	3,264	3,548	2,747	3,373	3,805	3,435	3,425	3,427	3,739	3,852
Manufacturing	8,875	9,015	8,583	8,985	9,466	9,812	9,957	10,315	11,013	11,243
Total Nonresidential Buildings	75,728	80,885	79,242	80,875	85,559	84,142	87,937	91,354	94,978	97,477
NONBUILDING STRUCTURES										
Power	26,731	26,402	28,245	25,385	25,314	28,538	30,719	32,482	34,242	35,803
Highway and Street	8,080	8,207	9,493	10,179	11,314	11,640	11,291	11,666	11,918	12,078
Sewage and Waste Disposal	2,857	2,503	2,600	2,787	2,991	3,502	3,576	3,592	3,615	3,651
Water Supply	5,890	2,882	3,026	3,154	3,386	5,476	5,626	5,764	5,576	5,318
Conservation and Development	176	651	707	305	341	384	408	417	430	446
Other Nonbuilding Structures	8,080	8,207	9,493	10,179	11,208	12,496	12,997	13,415	13,799	14,070
Total Nonbuilding Structures	51,815	48,851	53,563	51,989	54,554	62,036	64,617	67,336	69,580	71,367
Total Put in Place	\$227,513	\$233,288	\$241,713	\$250,380	\$261,267	\$269,360	\$278,824	\$289,598	\$299,613	\$308,733

*Improvements includes additions, alterations and major replacements. It does not include maintenance and repairs.

Construction Put in Place Estimated for Canada

Millions of Current Canadian Dollars

3rd Quarter 2019 Forecast (based on Q2 2019 Actuals)

	2014	2015	2016	2017	2018	2019E	2020F	2021F	2022F	2023F
RESIDENTIAL BUILDINGS										
Single-family	2%	-2%	6%	10%	1%	-2%	3%	2%	1%	2%
Multifamily	1%	11%	8%	8%	4%	0%	-2%	7%	5%	6%
Improvements*	7%	3%	3%	7%	4%	5%	4%	3%	3%	3%
Total Residential Buildings	4%	4%	5%	8%	3%	2%	3%	4%	3%	4%
NONRESIDENTIAL BUILDINGS										
Lodging	11%	25%	2%	-6%	3%	0%	4%	12%	5%	5%
Office	2%	10%	-10%	-3%	4%	-1%	19%	-2%	2%	8%
Commercial	7%	6%	-2%	0%	4%	3%	4%	7%	5%	3%
Health Care	-12%	-15%	-18%	37%	4%	-7%	-1%	-2%	-6%	-7%
Educational	5%	17%	10%	3%	8%	-14%	-1%	0%	1%	0%
Religious	11%	-1%	-1%	1%	6%	3%	2%	6%	4%	3%
Public Safety	-13%	38%	1%	-19%	2%	11%	10%	3%	4%	3%
Amusement and Recreation	-17%	13%	13%	6%	5%	-15%	7%	0%	1%	-1%
Transportation	3%	5%	1%	-1%	7%	1%	3%	6%	5%	2%
Communication	95%	9%	-23%	23%	13%	-10%	0%	0%	9%	3%
Manufacturing	0%	2%	-5%	5%	5%	4%	1%	4%	7%	2%
Total Nonresidential Buildings	4%	7%	-2%	2%	6%	-2%	5%	4%	4%	3%
NONBUILDING STRUCTURES										
Power	10%	-1%	7%	-10%	0%	13%	8%	6%	5%	5%
Highway and Street	-3%	2%	16%	7%	11%	3%	-3%	3%	2%	1%
Sewage and Waste Disposal	-3%	-12%	4%	7%	7%	17%	2%	0%	1%	1%
Water Supply	-8%	-51%	5%	4%	7%	62%	3%	2%	-3%	-5%
Conservation and Development	-4%	270%	8%	-57%	12%	12%	6%	2%	3%	4%
Other Nonbuilding Structures	-3%	2%	16%	7%	10%	11%	4%	3%	3%	2%
Total Nonbuilding Structures	3%	-6%	10%	-3%	5%	14%	4%	4%	3%	3%
Total Put in Place	4%	3%	4%	4%	4%	3%	4%	4%	3%	3%

*Improvements includes additions, alterations and major replacements. It does not include maintenance and repairs.

About the Authors



Jay Bowman is a principal with FMI. Jay assists a broad range of stakeholders in the construction industry, from program managers and general contractors to specialty trades and materials producers, with the identification and assessment of the risks influencing the strategic and tactical decisions they face. In this role, Jay's primary responsibilities include research design and interpretation, based on developing an understanding of the context within which these organizations operate. Jay can be reached at jbowman@fminet.com.



Brian Strawberry is a senior economist with FMI. Brian's expertise is in economic and statistical modeling. He leads FMI's efforts in market sizing, forecasting, and building product/construction material pricing and consumption trends. The combination of Brian's analytical skills and creative problem-solving abilities has proven valuable for many contractors, owners and private equity groups as well as industry associations and internal research initiatives. Brian can be reached at bstrawberry@fminet.com.



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