

CMD's Q3 2015 Construction Starts Forecast Report

July 2015

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June's U.S. unemployment rate, versus May, improved by 0.2 percentage points, falling from 5.5% to 5.3%. This won't be greeted with as much enthusiasm as one might suppose, however, because the 'participation rate' retreated from 62.9% to 62.6%.



CMD

30 Technology Parkway South, Suite 100
Norcross, GA 30092
P. 1.800-424-3996
F. 1-770-417-4399
E. marketing@cmdgroup.com
www.cmdgroup.com/construction-forecast
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Highlights

- Q2 saw US construction activity held back by disappointing business investment. Starts in both the residential and non-residential segments came in below expectation, but the civil engineering sector surprised to the upside. Consequently, the 2015 outlook for total starts has been lowered, with the non-residential sector downgraded most sharply.
- The wider US economy has disappointed so far this year, resulting from slower business investment and a stronger dollar and weak external demand harming exports. Our GDP forecast for 2015 has been lowered to 2.3%, from 2.7% in the last report. However, positive signs from the labor market and the transitory nature of many of the economy's ailments in H1 mean that the economy will grow at a healthy pace in H2 and beyond. This should translate into more robust growth in both residential and non-residential starts over the forecast period.
- Canadian construction starts came in above forecast in Q2, as civil engineering starts in a few key infrastructure sectors exceeded expectations. However, the weaker macro environment led to below-expectation starts activity in the residential and non-residential sectors.
- The Canadian economy contracted for the fourth consecutive month in April, and perhaps more worrying, higher-frequency data suggest the turnaround may be slower than initially anticipated. Business confidence remains subdued and investment growth is expected to be weak, while exports are trending lower despite a more competitive exchange rate, although looking ahead, the latter should provide some support to the economy. This has driven down the outlook for non-residential construction starts relative to the previous report. Civil engineering starts are forecast to post a small expansion this year after a particularly buoyant first half of the year.

Sources: CMD (formerly Reed Construction Data)/Oxford Economics.
Forecast reflects actual starts through Q2 2015.



Overview

US construction starts slightly below expectations in Q2

Total starts came in slightly below expectation in Q2. Residential and non-residential both underperformed relative to forecast, as momentum in the wider US economy was slow to pick up in the early part of the quarter. In residential work, the single-family sector grew 9% over a year earlier, marking the fifth quarter of consecutive growth. Multi-family starts were less buoyant, but there are reasons to think the underlying trend is stronger than is currently appearing. There has been a growing trend in cities towards multi-purpose buildings, whereby some residential units are included in an office block or retail center, so some of these residential buildings may be classified under other segments. Moreover, the Census Bureau's data on multi-family housing starts gradually picked up through Q2, so we may see a similar trend in the CMD starts data in the coming months.

Starts data also fell short within the non-residential sector. Construction of commercial offices underperformed relative to expectations on slower business investment growth in the first half of the year. Educational and medical starts also came in below forecast. The biggest positive story within the non-residential sector has come from industry. A number of mega projects such as the new Tesla Motors battery factory in Nevada worth an estimated \$2bn and a new methanol plant in Louisiana worth \$1bn have driven starts in this sector.

In contrast, civil engineering starts exceeded expectations in Q2. In particular the roads and water, sewage and treatment sectors displayed firmer growth, while starts of dams, canals and marine work, though only a small subsector, were almost 50% higher than our forecast.

BLS employment data for the construction sector also suggests a more positive picture of overall activity. Job openings in the sector have grown at a double-digit pace over the first five months of the year, while new hires have shown similar strength.

Table 1: Summary forecasts
(Annual percentage changes unless specified otherwise)

	2013	2014	2015	2016	2017	2018	2019
US							
Macro variables							
GDP	2.2	2.4	2.3	2.8	2.7	2.8	2.7
Population growth	0.7	0.8	0.8	0.8	0.8	0.8	0.8
Unemployment rate (%)	7.4	6.2	5.3	5.0	5.0	5.0	5.0
Real disposable income	-0.2	2.5	3.1	2.5	2.8	2.5	2.3
Central bank rate (%)	0.1	0.1	0.3	1.1	2.1	2.8	3.4
10-year government yield (%)	2.4	2.5	2.2	2.7	3.2	3.6	4.0
Construction starts							
Total starts	7.5	7.4	7.1	9.4	5.0	3.7	3.4
Residential	12.3	5.0	11.8	15.2	6.1	4.6	4.3
Non-res bldg	4.9	9.0	1.9	7.3	4.6	3.0	2.5
Civil engineering	3.4	9.0	7.7	1.9	3.3	3.0	3.1
Canada							
Macro variables							
GDP	2.0	2.4	1.3	2.2	2.7	2.7	2.4
Population growth	1.2	1.1	0.9	1.0	1.0	1.0	1.0
Unemployment rate (%)	7.1	6.9	6.7	6.6	6.5	6.4	6.3
Real disposable income	2.4	1.5	2.0	1.6	2.5	2.6	2.5
Central bank rate (%)	1.0	1.0	0.8	1.2	2.0	2.8	3.5
10-year government yield (%)	2.3	2.2	1.7	2.2	2.7	3.4	4.1
Exchange rate C\$ per US\$	1.03	1.10	1.23	1.19	1.16	1.13	1.10
Construction starts							
Total starts	14.9	-5.2	1.9	4.1	6.3	5.3	4.4
Residential	-8.2	6.3	-1.0	3.9	5.7	5.9	5.4
Non-res bldg	-9.8	-12.6	5.4	12.9	9.3	6.8	4.9
Civil engineering	51.2	-8.1	2.3	0.6	5.4	4.3	3.6

These trends are in line with our view that the construction sector is expanding capacity ahead of an expected upturn in demand over the coming quarters.

US GDP seen picking up in 2015 H2...

After a slow start to the year, the US economy has begun to show signs of improvement. Consumer spending rose by 0.9% in May, the strongest gain in six years, as solid income gains and rising employment numbers supported outlays. The labor market added a further 223,000 jobs in June, pushing the unemployment rate closer towards 5%. This continuing dissipation of labor market slack should lead to accelerating wage growth in the second half of the year. Furthermore, many of the

factors that led to slower activity early in the year, such as extreme weather and the west coast ports strike, were transitory and therefore will not encumber economic prospects going forward.

The stronger dollar has continued to weigh on exports, which is further compounded by sluggish global growth. We expect that net trade will subtract 0.6 percentage points from 2015 growth. Inflation has remained weak, with the Fed's preferred inflation gauge, the core PCE price index, growing only 1.2% year-on-year in May. However, we expect that inflation will start to pick up again in the second half of 2015, driven by higher gasoline prices and less pass-through from the strong dollar. We continue to expect the Fed to begin gradually raising the federal funds rate in September.

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All in all, our headline GDP growth forecast has been lowered to 2.3% in 2015 (from 2.7% growth in our last report), but stronger activity in H2 and beyond has led us to raise the 2016 GDP forecast to 2.8% (from 2.7%).

...leading to stronger construction

Looking forward, the outlook for total construction starts in 2015 is now lower than in our previous report. Total starts in 2015 are forecast to grow by 7.1%, as slow economic momentum early in the year bleeds into the construction sector. Weaker business investment, in particular, has impacted the non-residential sector. Looking further ahead, starts growth should pick up from the second half of the year and into 2016 in line with the broader economy.

Although the residential starts forecast has been lowered on a relatively slow beginning to the year, we continue to believe that residential construction has significant scope for improvement over the coming years. This is most expressly true for single family homes, for which starts are still more than 60% below their 2006 peak, implying plenty of room for catch-up growth. As noted in previous reports, household financial constraints since the housing crash have driven down rates of home ownership, causing people to rent, predominantly in multi-family accommodation. This, coupled with shifting preferences to city living among the dominant millennial generation has meant that multi-family starts have almost recovered to their 2007 levels, therefore limiting their scope for further catch-up. Indeed, over the forecast period, we expect the shift towards rental properties to start reversing as firming household incomes drive stronger growth in home ownership. Furthermore, the social preference for city living amongst the millennial generation is likely to dissipate somewhat as they reach child bearing age and move to more family-friendly suburban single-family housing.

The outlook for non-residential starts has worsened since our previous report as the lukewarm pace of business investment growth dampens uptake of new construction projects. Within the non-residential sector,

Sector	Short-term drivers	Long-term drivers
Residential	Unemployment rate; Household liabilities; Mortgage interest rates; House prices; Population trends	House prices; Incomes
Non-residential building	Output trends in relevant sector; Population trends; Capacity utilization; Borrowing costs; Employment in relevant sector; Disposable income	Output trends in relevant sector; Employment in relevant sector
Civil engineering	Federal/State/Provincial spending; Government borrowing costs; Employment in government sector; Output trends in relevant sector	Federal/State/Provincial spending; Output trends in relevant sector

the continued decline in the construction of private offices has been particularly disappointing. Office vacancy rates are currently near 6-year lows, meaning that there should be plenty of scope for new construction in order to raise capacity. We expect that as business investment picks up in the second half of the year, construction of new office space will gain momentum quickly, so 2016 growth should be particularly robust.

Starts in the educational sector are expected to fall this year, but the headline number alone masks a more nuanced picture within the sector. College and university starts are projected to fall sharply as the traditional universities compete against increasingly popular online options, which require fewer physical buildings. Moreover, unfavourable population dynamics also mean that the flow of university-aged students is likely to dip in the coming years; the population of 16-19 year olds fell by 19% from 2004-14. Furthermore, enrolment rates could decline as the labor market starts to pick up again. Typically, as job prospects become more limited, people will "ride out" the tougher labor market conditions by enrolling in education or training, a trend that was certainly noticeable in the wake of the 2008 recession. But now, with the ever strengthening US labor market, college enrolment has receded somewhat. In contrast, construction of elementary and pre-school is forecast to grow at a double-digit pace this year, powered by the now

third generation baby boomers entering school age in the coming years.

Elsewhere in the non-residential segment, the outlook for starts of hospitals and medical clinics has been strengthened by the recent Supreme Court decision in favor of the Affordable Care Act. Hospital starts have been on a mild downward trend since 2008, but the prospect of an aging population means that they should be set to take off in the coming years.

Industrial starts have impressed so far this year on account of various manufacturing mega projects. US manufacturing has benefited from a recent on-shoring trend, underpinning solid demand for new factories. In 2016, however, manufacturing starts are forecast to be flat, largely on account of the high starting position from 2015, but also the strong US dollar and weak global demand has led to little growth in US manufacturing in the first half of 2015 and a slight fall in capacity utilization since the start of the year. Nonetheless, manufacturing starts in the US are forecast to grow robustly thereafter powered by rising foreign labor costs, productivity gains and relatively cheap US energy.

The outlook for civil engineering starts this year has been raised after a stronger than expected Q2. Since many of the civil engineering sectors are funded mainly through public funds, the cyclical slowdown from lower business investment growth has had a minimal effect on the sector. Furthermore, whereas the Federal budget

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faces serious political constraints from a Republican controlled Congress, state and local budgets — which fund around nine-tenths of public construction — have a less encumbered fiscal outlook (notwithstanding isolated problems in states like Illinois). Water, sewage and treatment starts and road starts have both grown more strongly than anticipated so far this year, and in the case of the latter, we expect robust growth going forward too, as the need to upgrade the US infrastructure stock becomes ever more pressing. From 2017 onwards, we expect civil engineering starts to stabilise around the 3% per annum range.

Canadian construction outlook

Total starts in Canada came in slightly ahead of our forecast in Q2. This upturn was driven entirely by the civil engineering sector, underpinned by a number of mega infrastructure projects which are largely shielded from the cyclical slowdown impacting the macro-economy. For instance, a C\$4bn bridge project in Quebec was started during the quarter and construction of dams, canals and marine work was also very buoyant. In contrast, falling investment in the oil sector, which had been a key driver of activity in the Canadian civil engineering sector, pulled down starts in the “other civil engineering” segment by more than 90% from the same period a year earlier.

Unfortunately, activity in the residential and non-residential building sectors was less positive, with both sectors coming in below expectation. Non-residential building starts have suffered from a broad-based economic slowdown, with weakening business investment curbing construction demand. Likewise, the residential sector has slowed, in part due to weakening economic conditions, but also fears of an overvalued property market are playing out among construction firms.

The downturn in economic activity has proved more sustained than initially expected, with the economy contracting 0.1% in April, the fourth consecutive monthly decline. Perhaps more worryingly, high-frequency data imply that the anticipated rebound could be more subdued than we had previously thought. Non-energy exports are trending lower in spite of the

competitive exchange rate, while business investment remains below par as the low oil price continues to impact firms' spending plans across the economy.

Looking forward to the eventual recovery, we expect the growing strength of US demand and the weak Canadian dollar — at a six-year low against its US counterpart — to drive Canadian economic activity. The Bank of Canada has also responded by cutting the overnight rate 25bp to 0.5%, which should support activity at the margin.

Despite the slowing Canadian macro-economy, the 2015 starts forecast has been raised slightly compared to our previous report. This is due entirely to the unexpectedly strong turnout in civil engineering starts in Q2, which will not likely persist. Looking ahead, the weaker macroeconomic outlook should impact on Canadian construction prospects in the second half of this year and into 2016, and for this reason our 2016 forecast has been roughly halved to 4.1%.

Civil engineering starts, the largest of the construction sub-sectors, are forecast to post a small expansion this year, which compares favorably to the decline we were expecting in the last report. The mega projects seen in key infrastructure sectors in Q2 are the big reason for this upgrade. In contrast, the ‘other civil’ engineering category that encompasses Canada's large extraction-based industry is forecast to fall sharply this year as falling investment in the oil and gas sector takes hold. Moreover, given the extent of the decline in 2015, growth in 2016 should remain relatively muted. Nonetheless, there is still some scope for growth within the mining sector, since it includes more than just oil extraction. Other projects (potash mining in the Prairies for instance) could provide a source of demand for new facilities going forward.

Residential housing starts are set to decline by 1% this year. Informing this view is the relatively disappointing starts data so far this year and worries about over-heating in Canada's housing market. This is particularly true in the multi-family segment, where house price inflation in the major urban centers such as Toronto and Vancouver has been most pronounced, and

therefore is at risk for the sharpest pull-backs. Furthermore, a lack of employment growth in Canada, in contrast to the situation in the US, could put pressure on household incomes, meaning that continued rises in new housing demand is more questionable than in the US.

The non-residential sector is forecast to grow by just over 5% this year, a downgrade on our previous report after weaker than expected data in the first half of 2015 and only muted growth forecast for the second half of the year. Within the non-residential segment, the outlook for private office starts has grown less optimistic since our last report, although the impact of this will be more pronounced in 2016-17 than in 2015. Private office construction in Alberta has been robust in recent years (including even in early 2015), tied to the growth in extraction industries and related services. But as the sector struggles, demand for new office construction is likely to slow. Beyond Alberta, sputtering economic activity and falling business confidence are putting downward pressure on business investment more widely, leading to only moderate demand for new office space going forward. Retail construction is another sector that may struggle in the coming years, held back by a lack of growth in employment and household incomes. Target's decision to close all its stores in Canada, for instance, will leave a number of store lots vacant, dampening demand for new construction.

But not all is doom-and-gloom within non-residential construction. Hospital and clinic starts are forecast to grow strongly as the country's aging population creates strains on its health system. Hospital starts have fallen precipitously since 2011, creating scope for renewed construction activity over the coming years. Transportation terminals are also forecast to grow significantly over the coming years amid numerous projects to upgrade the country's transportation infrastructure, particularly in its main cities. Construction starts in the hotels and motels sector have already risen substantially this year, perhaps reflecting stronger inbound tourism resulting from the weaker Canadian dollar (output in tourism-related industries rose 4% year-on-year in Q1).

Table 3: U.S. Type-of-Structure Forecasts

(\$ Billions USD)

	Actuals		Forecasts				
	2013	2014	2015	2016	2017	2018	2019
Single-family	146.126	155.483	177.484	204.783	216.912	227.208	237.582
Multi-family	46.409	46.772	48.654	55.711	59.419	61.788	63.799
TOTAL RESIDENTIAL	192.536	202.255	226.138	260.494	276.331	288.996	301.381
<i>(Yr/yr % change)</i>	<i>12.3%</i>	<i>5.0%</i>	<i>11.8%</i>	<i>15.2%</i>	<i>6.1%</i>	<i>4.6%</i>	<i>4.3%</i>
Hotels/Motels	6.553	8.377	9.750	10.783	11.622	11.671	11.412
Shopping/Retail	19.164	18.628	20.700	22.406	23.281	23.875	24.317
Parking Garages	1.981	1.781	2.079	2.140	2.181	2.240	2.291
Amusement	5.611	6.390	6.732	7.158	7.326	7.513	7.737
Private Offices	17.364	16.680	15.983	18.155	19.423	20.536	21.619
Governmental Offices	9.528	10.802	10.542	11.125	11.230	11.356	11.549
Laboratories (Schools & Industrial)	1.733	2.373	2.567	2.829	3.016	3.198	3.356
Warehouses	4.125	7.237	7.360	8.240	8.786	9.233	9.623
Sports Stadium/Convention Center	3.575	6.670	5.932	5.992	6.053	6.050	5.923
Transportation Terminals	13.051	7.232	7.116	8.039	8.940	9.554	10.126
TOTAL COMMERCIAL	82.684	86.170	88.761	96.869	101.857	105.225	107.953
<i>(Yr/yr % change)</i>	<i>18.4%</i>	<i>4.2%</i>	<i>3.0%</i>	<i>9.1%</i>	<i>5.1%</i>	<i>3.3%</i>	<i>2.6%</i>
TOTAL INDUSTRIAL (manufacturing)	8.053	9.576	12.238	12.308	12.860	13.174	13.390
<i>(Yr/yr % change)</i>	<i>44.5%</i>	<i>18.9%</i>	<i>27.8%</i>	<i>0.6%</i>	<i>4.5%</i>	<i>2.4%</i>	<i>1.6%</i>
Religious	1.834	1.410	1.626	1.707	1.763	1.826	1.892
Hospitals/Clinics	15.027	13.533	14.740	16.993	18.673	19.984	21.005
Nursing Homes/Assisted Living	4.140	3.878	4.148	4.332	4.421	4.569	4.735
Libraries/Museums	2.186	2.245	2.225	2.463	2.491	2.544	2.590
Courthouse	1.254	0.750	1.036	1.277	1.294	1.306	1.319
Police/Fire	1.589	1.684	1.907	2.087	2.130	2.169	2.190
Prisons	1.226	1.177	1.784	1.672	1.753	1.789	1.823
Military	5.039	10.684	6.793	7.209	7.324	7.447	7.541
Educational Facilities	47.577	54.937	53.228	54.723	56.289	57.299	58.344
MED misc	2.646	2.398	3.002	3.365	3.549	3.753	3.968
TOTAL INSTITUTIONAL	82.519	92.695	90.489	95.829	99.688	102.686	105.407
<i>(Yr/yr % change)</i>	<i>-8.3%</i>	<i>12.3%</i>	<i>-2.4%</i>	<i>5.9%</i>	<i>4.0%</i>	<i>3.0%</i>	<i>2.6%</i>
Miscellaneous Non-Res Building	3.265	3.908	4.437	5.310	5.550	5.559	5.647
TOTAL NON-RES BLDG	176.520	192.350	195.924	210.316	219.955	226.644	232.396
<i>(Yr/yr % change)</i>	<i>4.9%</i>	<i>9.0%</i>	<i>1.9%</i>	<i>7.3%</i>	<i>4.6%</i>	<i>3.0%</i>	<i>2.5%</i>
Airport	2.851	3.259	3.225	3.277	3.296	3.407	3.534
Roads	41.127	47.114	50.119	52.109	53.962	55.807	57.508
Bridges	10.669	11.180	12.454	13.197	13.859	14.459	15.043
Dams/Canal/Marine	5.363	5.054	5.242	4.785	4.795	4.849	4.917
Water & Sewage Treatment	23.548	25.912	29.793	29.331	30.249	30.964	31.919
Misc Civil (Power, etc.)	17.896	18.100	18.301	18.644	19.216	19.709	20.309
TOTAL ENGINEERING	101.454	110.619	119.134	121.342	125.376	129.194	133.229
<i>(Yr/yr % change)</i>	<i>3.4%</i>	<i>9.0%</i>	<i>7.7%</i>	<i>1.9%</i>	<i>3.3%</i>	<i>3.0%</i>	<i>3.1%</i>
TOTAL NON-RESIDENTIAL	277.974	302.968	315.057	331.658	345.331	355.838	365.625
<i>(Yr/yr % change)</i>	<i>4.4%</i>	<i>9.0%</i>	<i>4.0%</i>	<i>5.3%</i>	<i>4.1%</i>	<i>3.0%</i>	<i>2.8%</i>
GRAND TOTAL	470.510	505.224	541.195	592.152	621.662	644.834	667.007
<i>(Yr/yr % change)</i>	<i>7.5%</i>	<i>7.4%</i>	<i>7.1%</i>	<i>9.4%</i>	<i>5.0%</i>	<i>3.7%</i>	<i>3.4%</i>

Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD.
Table: CMD.

Table 4: U.S. States, Total Construction Starts – CMD

States (alphabetical)	Actuals	Forecasts (Year versus previous year % change)				
	(Level in \$ Millions USD)	2015	2016	2017	2018	2019
	2014					
Alaska	\$2,404	-26.3%	-23.3%	3.4%	3.6%	3.1%
Alabama	\$9,105	-28.5%	10.7%	5.3%	3.7%	3.2%
Arkansas	\$5,220	-24.0%	1.6%	5.9%	4.6%	3.9%
Arizona	\$8,870	25.2%	19.4%	5.4%	4.5%	4.8%
California*	\$49,961	14.8%	26.1%	4.5%	3.2%	3.3%
Colorado	\$9,594	9.1%	3.1%	4.5%	4.0%	3.6%
Connecticut	\$5,123	-0.1%	14.9%	3.8%	2.2%	1.9%
District Of Columbia	\$3,846	-59.7%	77.9%	3.0%	2.0%	1.8%
Delaware	\$1,566	7.7%	34.9%	5.7%	3.7%	3.3%
Florida*	\$26,186	28.5%	11.3%	4.6%	3.7%	3.8%
Georgia	\$15,951	7.1%	22.3%	5.1%	3.6%	3.2%
Hawaii	\$2,777	-19.8%	2.8%	4.9%	2.8%	2.7%
Iowa	\$6,559	1.6%	-21.3%	4.1%	3.4%	2.9%
Idaho	\$3,161	2.3%	-0.1%	4.4%	4.2%	4.0%
Illinois	\$15,929	7.5%	1.5%	4.1%	2.7%	2.5%
Indiana	\$9,211	-1.3%	24.5%	4.4%	3.9%	3.4%
Kansas	\$4,780	18.4%	-19.8%	3.8%	3.0%	2.7%
Kentucky	\$6,140	-9.9%	4.8%	5.6%	4.1%	3.6%
Louisiana	\$9,388	34.1%	-31.4%	6.2%	4.1%	3.6%
Massachusetts	\$10,904	-1.9%	17.1%	4.5%	2.8%	2.6%
Maryland	\$11,481	-16.7%	36.1%	4.3%	2.4%	2.3%
Maine	\$1,577	1.8%	35.7%	3.6%	1.9%	1.9%
Michigan	\$9,899	14.7%	-4.1%	3.1%	2.9%	2.5%
Minnesota	\$8,349	26.1%	-3.1%	4.1%	3.3%	3.1%
Missouri	\$8,055	8.9%	0.5%	4.0%	3.2%	2.7%
Mississippi	\$4,134	-9.3%	5.9%	5.0%	3.9%	3.4%
Montana	\$1,477	19.0%	-4.4%	6.3%	4.3%	3.5%
North Carolina	\$18,661	9.7%	12.0%	6.6%	5.0%	4.5%
North Dakota	\$4,444	-37.0%	-27.4%	7.0%	4.5%	3.7%
Nebraska	\$4,033	-12.7%	3.4%	4.9%	3.5%	3.1%
New Hampshire	\$1,576	25.0%	26.1%	4.9%	3.0%	2.7%
New Jersey	\$10,441	-6.9%	12.3%	3.1%	2.0%	2.1%
New Mexico	\$2,914	-11.9%	20.0%	5.1%	3.4%	2.8%
Nevada	\$5,443	46.6%	-21.1%	3.6%	2.2%	2.6%
New York*	\$37,397	-15.1%	2.7%	4.3%	3.0%	2.8%
Ohio	\$13,073	5.2%	19.5%	4.7%	3.4%	2.8%
Oklahoma	\$6,433	2.8%	6.4%	6.4%	4.6%	4.0%
Oregon	\$6,046	15.6%	12.8%	4.3%	4.6%	4.6%
Pennsylvania	\$15,762	20.6%	8.9%	4.7%	3.2%	2.8%
Rhode Island	\$1,059	2.3%	37.4%	4.1%	2.4%	2.1%
South Carolina	\$9,260	4.0%	4.1%	5.2%	4.4%	3.9%
South Dakota	\$1,977	28.9%	-36.0%	5.6%	4.2%	3.5%
Tennessee	\$9,687	24.2%	1.5%	4.4%	4.0%	3.8%
Texas*	\$58,758	19.4%	10.6%	7.1%	5.4%	4.6%
Utah	\$5,947	4.3%	11.2%	4.0%	3.6%	3.3%
Virginia	\$14,706	4.4%	18.9%	5.4%	3.1%	3.0%
Vermont	\$1,026	8.8%	2.9%	3.7%	3.4%	2.9%
Washington	\$14,944	-6.6%	9.5%	5.1%	4.3%	4.2%
Wisconsin	\$6,341	30.4%	-0.8%	3.3%	2.7%	2.5%
West Virginia	\$1,625	13.1%	11.0%	5.1%	2.8%	2.2%
Wyoming	\$2,025	-26.5%	-6.1%	5.0%	3.5%	2.9%

*One in three Americans lives in one of the four shaded states, New York, Florida, Texas or California.

Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Table: CMD.

Table 5: U.S. Four Largest States: Type-of-Structure Forecasts

(\$ Billions USD)

		Actuals		Forecasts				
		2013	2014	2015	2016	2017	2018	2019
New York	Residential	12.760	14.000	10.536	10.114	10.615	10.984	11.305
	Non-res Building	17.441	17.061	13.454	15.288	15.961	16.388	16.791
	Engineering/Civil	5.044	6.336	7.751	7.191	7.421	7.647	7.890
	Total	35.246	37.397	31.741	32.593	33.997	35.019	35.986
	<i>(Yr vs previous yr % Change)</i>	21.6%	6.1%	-15.1%	2.7%	4.3%	3.0%	2.8%
Florida	Residential	15.250	14.120	16.773	19.104	20.234	20.972	21.827
	Non-res Building	6.959	7.330	10.838	11.840	12.244	12.744	13.220
	Engineering/Civil	5.484	4.736	6.036	6.505	6.708	6.906	7.116
	Total	27.693	26.186	33.647	37.448	39.185	40.622	42.163
	<i>(Yr vs previous yr % Change)</i>	23.9%	-5.4%	28.5%	11.3%	4.6%	3.7%	3.8%
Texas	Residential	27.673	31.150	35.297	41.386	45.265	48.590	51.713
	Non-res Building	17.615	17.362	23.191	23.212	24.429	25.272	25.840
	Engineering/Civil	8.839	10.246	11.642	12.986	13.369	13.723	14.104
	Total	54.126	58.758	70.129	77.584	83.062	87.585	91.657
	<i>(Yr vs previous yr % Change)</i>	8.6%	8.6%	19.4%	10.6%	7.1%	5.4%	4.6%
California	Residential	14.556	16.096	20.352	26.265	27.479	28.312	29.270
	Non-res Building	19.672	23.028	24.669	31.070	32.564	33.667	34.717
	Engineering/Civil	11.049	10.836	12.345	15.028	15.566	16.080	16.624
	Total	45.277	49.961	57.367	72.363	75.609	78.059	80.611
	<i>(Yr vs previous yr % Change)</i>	-5.7%	10.3%	14.8%	26.1%	4.5%	3.2%	3.3%

Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD.
Table: CMD.

Tweeted by CMD:

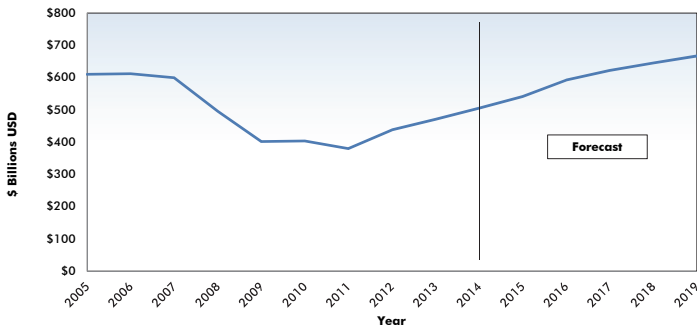


@CMD_GroupLLC

On account of the increases to domestic supplies realized by fracking, the U.S. has significantly reduced its reliance on OPEC oil. In fact, the goods and services trade balance with OPEC has moved from a longstanding deficit to a small surplus.

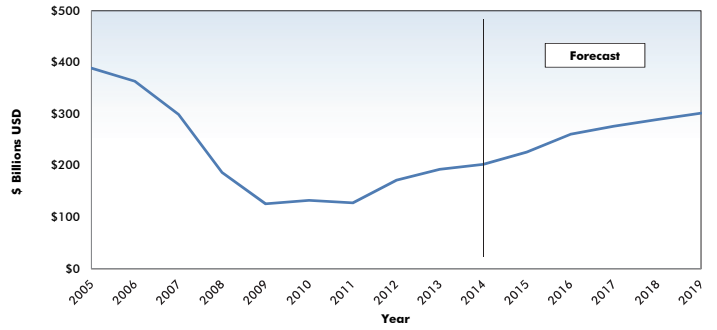


Graph 1: U.S. Total Construction Starts – CMD



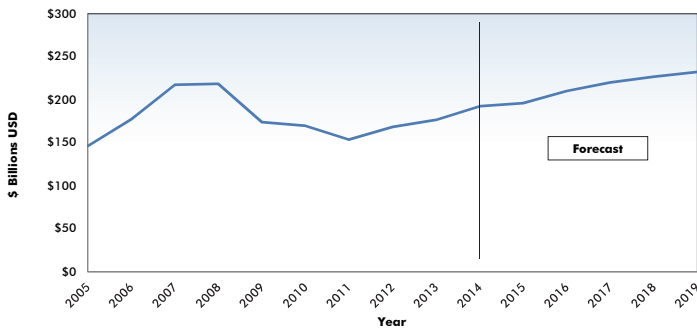
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 2: U.S. Total Residential Construction Starts – CMD



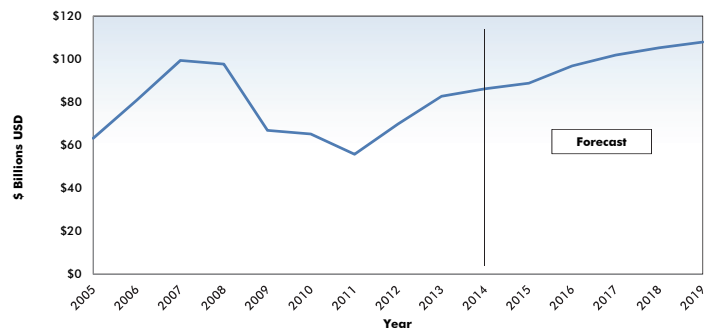
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 3: U.S. Total Non-Residential Building Starts – CMD



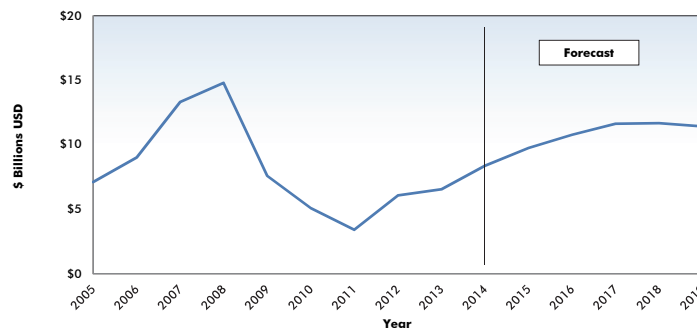
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 4: U.S. Total Commercial Construction Starts – CMD



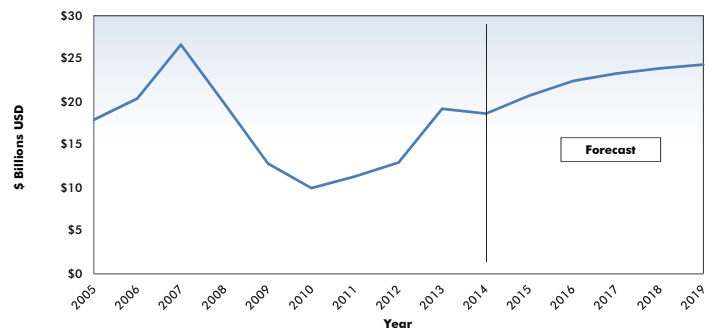
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 5: U.S. Hotel/Motel Construction Starts – CMD



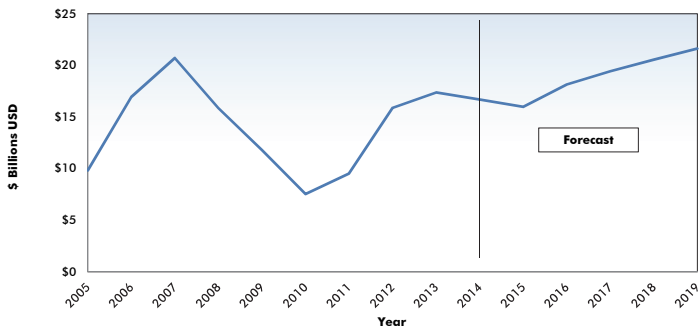
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 6: U.S. Shopping/Retail Construction Starts – CMD



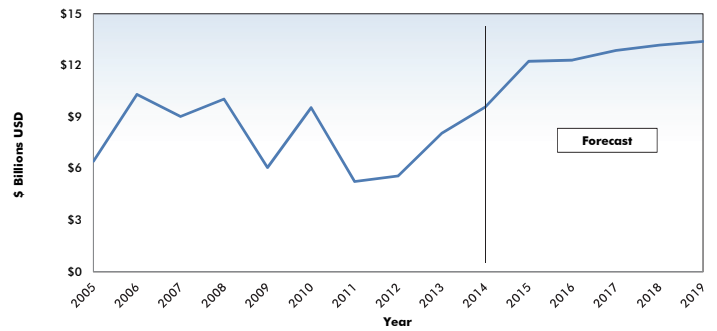
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 7: U.S. Private Office Building Construction Starts – CMD



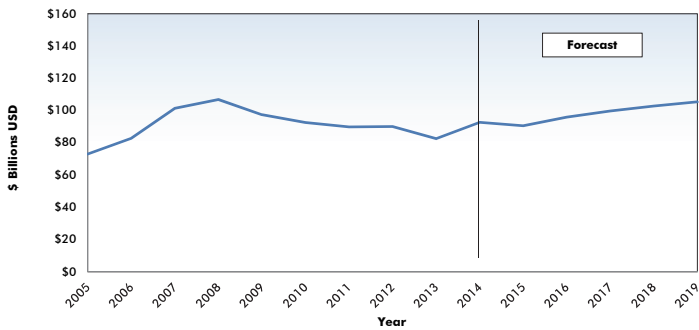
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 8: U.S. Total Industrial/Manufacturing Construction Starts – CMD



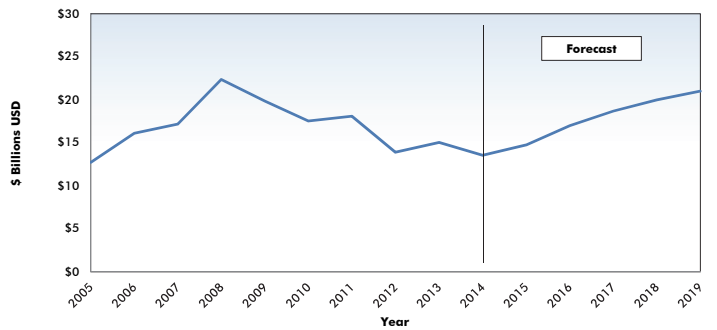
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 9: U.S. Total Institutional Construction Starts – CMD



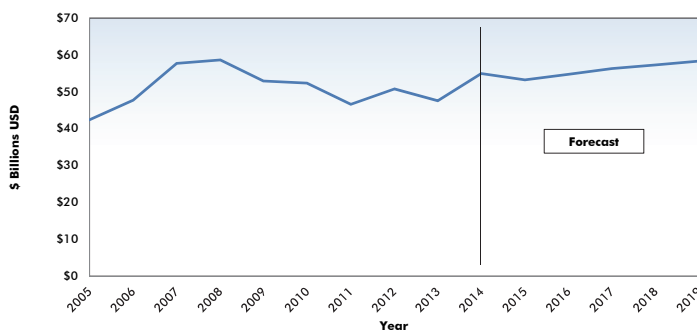
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 10: U.S. Hospital and Clinic Construction Starts – CMD



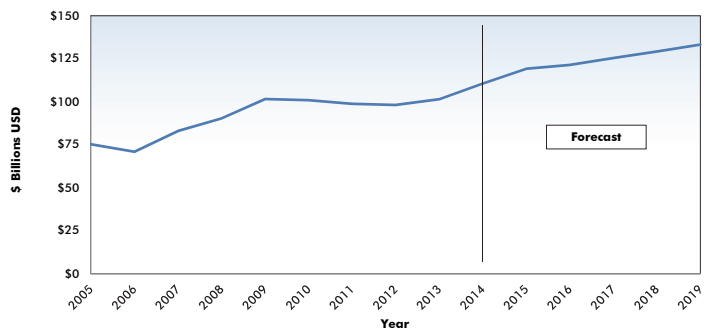
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 11: U.S. Total Educational Construction Starts – CMD



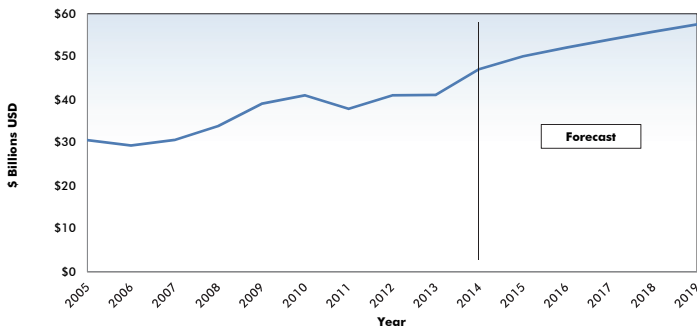
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 12: U.S. Total Heavy Engineering/Civil Construction Starts – CMD



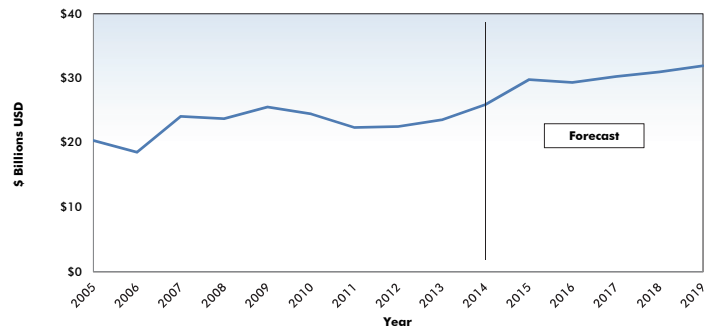
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 13: U.S. Roadwork Construction Starts – CMD



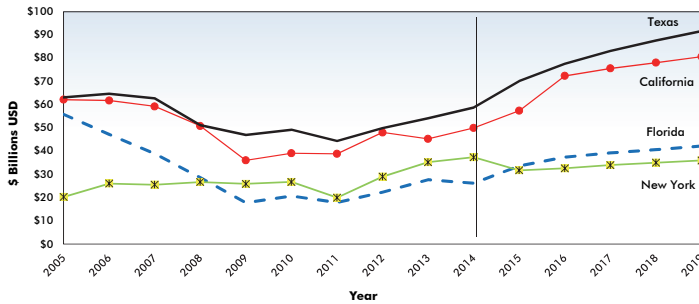
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 14: U.S. Water and Sewage Treatment Construction Starts – CMD



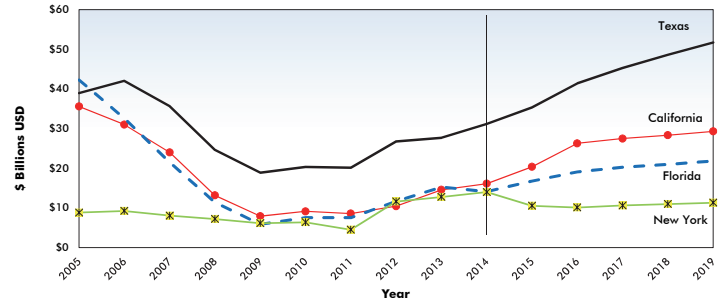
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 15: U.S. Four Largest States (by Population): Total Construction Starts – CMD



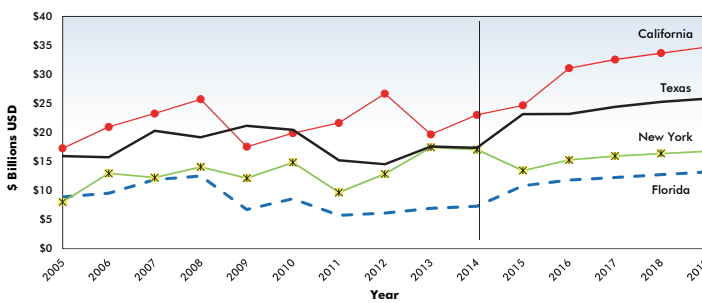
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 16: U.S. Four Largest States: Total Residential Construction Starts – CMD



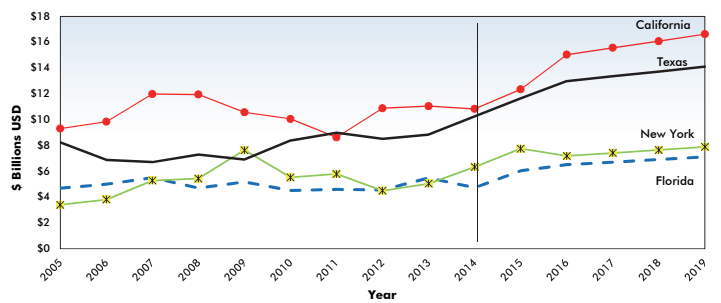
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 17: U.S. Four Largest States: Total Non-residential Building Starts – CMD



Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 18: U.S. Four Largest States: Total Engineering/Civil Construction Starts – CMD



Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Table 6: Canada Type-of-Structure Forecasts
(\$ Billions CAD)

	Actuals		Forecasts				
	2013	2014	2015	2016	2017	2018	2019
Single-family	14.198	14.126	14.409	15.152	16.124	17.182	18.127
Multi-family	9.769	11.354	10.806	11.047	11.580	12.147	12.774
TOTAL RESIDENTIAL	23.967	25.480	25.215	26.199	27.704	29.329	30.902
(Yr/yr % change)	-8.2%	6.3%	-1.0%	3.9%	5.7%	5.9%	5.4%
Hotels/Motels	1.033	0.378	0.743	0.887	0.996	1.015	0.999
Private Offices	2.364	2.215	2.365	2.476	2.574	2.643	2.701
Governmental Offices	1.442	1.583	1.469	1.673	1.741	1.802	1.854
Shopping/Retail	2.179	1.755	1.398	1.518	1.589	1.656	1.718
Retail Miscellaneous	0.521	0.420	0.352	0.391	0.444	0.491	0.524
Parking Garages	0.068	0.091	0.119	0.123	0.129	0.135	0.139
Amusement	2.724	1.177	1.606	1.550	1.708	1.800	1.886
Warehouses	0.630	0.696	0.791	0.858	0.909	0.954	0.995
TOTAL COMMERCIAL	10.959	8.315	8.843	9.477	10.090	10.497	10.816
(Yr/yr % change)	22.9%	-24.1%	6.4%	7.2%	6.5%	4.0%	3.0%
TOTAL INDUSTRIAL (manufacturing)	1.351	2.058	1.059	1.649	1.930	2.126	2.279
(Yr/yr % change)	-68.0%	52.4%	-48.5%	55.7%	17.1%	10.1%	7.2%
Religious	0.119	0.120	0.127	0.137	0.143	0.147	0.150
Hospitals/Clinics	1.134	1.321	1.851	2.163	2.626	3.077	3.498
MED misc	0.680	0.613	0.947	1.050	1.113	1.161	1.198
Transportation Terminals*	0.306	0.399	0.692	0.822	0.891	0.960	1.015
Police/Fire	0.674	0.697	0.730	0.873	0.962	1.057	1.083
Educational Facilities	3.891	3.191	3.361	3.713	3.974	4.185	4.302
TOTAL INSTITUTIONAL	6.804	6.340	7.708	8.759	9.710	10.586	11.245
(Yr/yr % change)	-15.4%	-6.8%	21.6%	13.6%	10.9%	9.0%	6.2%
TOTAL NON-RES BUILDING	19.114	16.713	17.611	19.884	21.730	23.209	24.341
(Yr/yr % change)	-9.8%	-12.6%	5.4%	12.9%	9.3%	6.8%	4.9%
Bridges	1.876	1.578	5.601	2.957	3.072	3.149	3.191
Dams/Canal/Marine	0.072	0.099	0.271	0.235	0.233	0.234	0.234
Water & Sewage Treatment	3.361	3.451	3.755	3.963	4.069	4.172	4.260
Roads	6.317	6.429	6.873	7.431	7.758	7.996	8.107
Power Infrastructure	12.014	5.908	6.608	7.540	8.314	8.954	9.516
All Other Civil (Oil & Gas etc.)	23.258	25.629	20.969	22.232	23.292	24.259	25.213
TOTAL ENGINEERING	46.897	43.093	44.077	44.358	46.738	48.764	50.521
(Yr/yr % change)	51.2%	-8.1%	2.3%	0.6%	5.4%	4.3%	3.6%
TOTAL NON-RESIDENTIAL	66.011	59.806	61.688	64.242	68.468	71.973	74.861
(Yr/yr % change)	26.5%	-9.4%	3.1%	4.1%	6.6%	5.1%	4.0%
GRAND TOTAL	89.978	85.286	86.903	90.441	96.172	101.301	105.763
(Yr/yr % change)	14.9%	-5.2%	1.9%	4.1%	6.3%	5.3%	4.4%

* 'Transportation terminals' is the one type-of-structure that is categorized differently in Canada (institutional) than in the U.S. (commercial), for reasons having to do with government statistics.

Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD.
Table: CMD.

Table 7: Canadian Provinces, Total Construction Starts – CMD

Regions/Provinces (East to West)	Actuals (Level in \$ Millions CAD)	Forecasts (Year versus previous year % change)				
	2014	2015	2016	2017	2018	2019
Atlantic region	\$16,710	-78.1%	58.9%	4.6%	3.7%	3.0%
Quebec	\$11,638	46.3%	-2.1%	7.5%	6.0%	4.8%
Ontario	\$21,540	23.5%	23.3%	4.2%	5.0%	4.4%
Manitoba	\$2,342	24.0%	5.4%	5.5%	4.9%	4.0%
Saskatchewan	\$6,011	-43.1%	-9.2%	5.1%	4.7%	3.9%
Alberta	\$14,129	28.7%	-22.3%	11.5%	6.1%	4.5%
British Columbia	\$12,915	17.0%	-1.7%	5.9%	5.3%	4.6%

Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD.
Table: CMD.

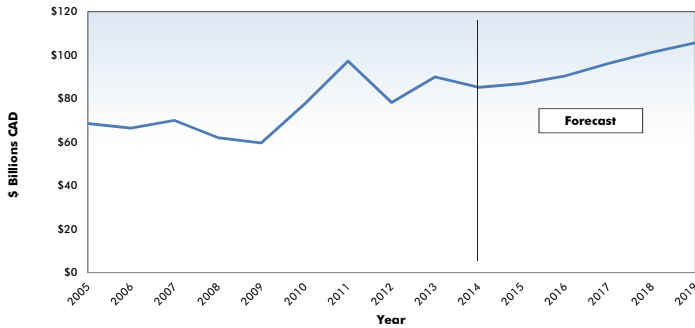
Table 8: Canada Four Largest Provinces: Type-of-Structure Forecasts

(\$ Billions CAD)

		Actuals		Forecasts				
		2013	2014	2015	2016	2017	2018	2019
Quebec	Residential	3.512	3.436	3.204	3.580	3.756	3.973	4.174
	Non-res Building	4.019	3.600	2.678	3.375	3.863	4.169	4.418
	Engineering/Civil	3.025	4.601	11.142	9.709	10.302	10.863	11.323
	Total	10.556	11.638	17.024	16.664	17.921	19.005	19.915
	(Yr vs previous yr % Change)	-19.2%	10.3%	46.3%	-2.1%	7.5%	6.0%	4.8%
Ontario	Residential	8.633	9.361	10.050	10.538	10.880	11.491	12.085
	Non-res Building	6.033	4.591	5.968	8.850	9.175	9.715	10.191
	Engineering/Civil	7.301	7.588	10.585	13.422	14.130	14.700	15.202
	Total	21.967	21.540	26.603	32.810	34.186	35.906	37.477
	(Yr vs previous yr % Change)	-6.6%	-1.9%	23.5%	23.3%	4.2%	5.0%	4.4%
Alberta	Residential	4.108	4.417	3.852	3.605	4.188	4.475	4.751
	Non-res Building	2.979	2.514	3.092	2.164	2.722	2.987	3.103
	Engineering/Civil	19.145	7.198	11.239	8.357	8.836	9.237	9.596
	Total	26.232	14.129	18.182	14.126	15.745	16.699	17.451
	(Yr vs previous yr % Change)	54.6%	-46.1%	28.7%	-22.3%	11.5%	6.1%	4.5%
British Columbia	Residential	4.617	5.548	6.041	6.066	6.326	6.676	7.035
	Non-res Building	2.926	4.145	3.825	3.419	3.739	3.979	4.179
	Engineering/Civil	8.046	3.222	5.240	5.369	5.673	5.917	6.125
	Total	15.589	12.915	15.106	14.854	15.738	16.572	17.340
	(Yr vs previous yr % Change)	-6.9%	-17.2%	17.0%	-1.7%	5.9%	5.3%	4.6%

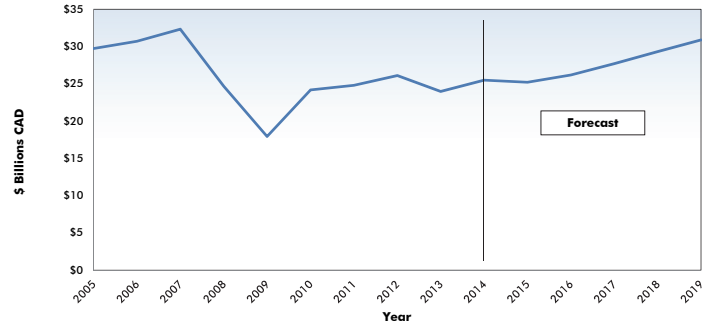
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD.
Table: CMD.

Graph 19: Canadian Total Construction Starts – CMD



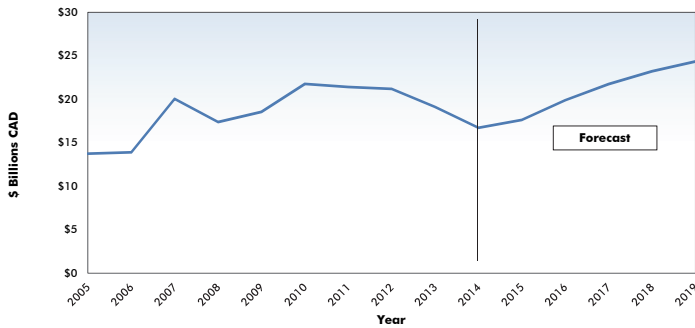
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 20: Canadian Residential Construction Starts – CMD



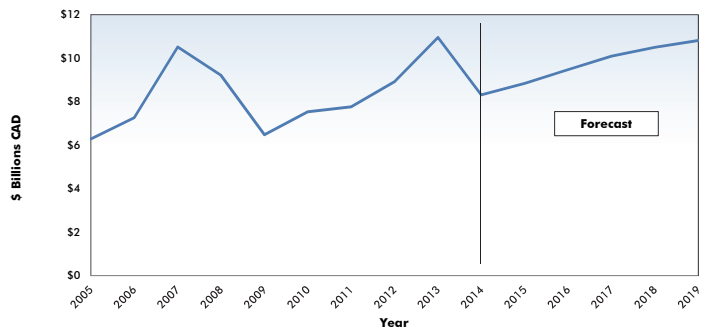
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 21: Canadian Non-Residential Building Starts – CMD



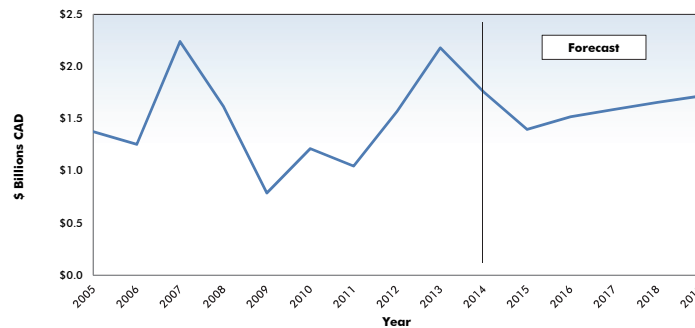
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 22: Canadian Commercial Construction Starts – CMD



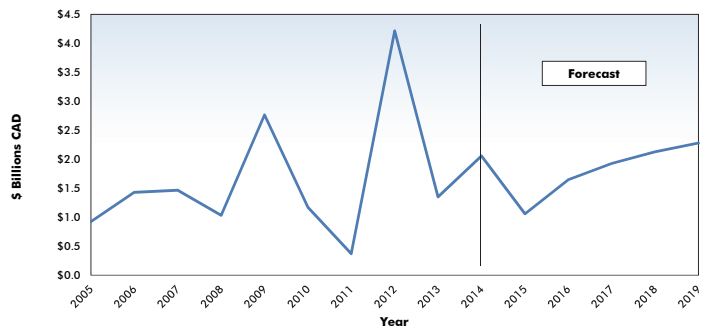
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 23: Canadian Shopping/Retail Construction Starts – CMD



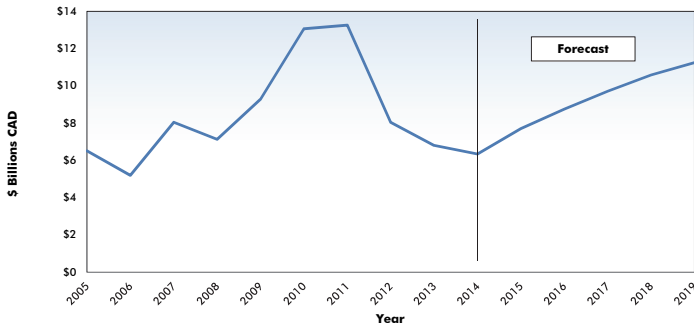
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 24: Canadian Industrial Construction Starts – CMD



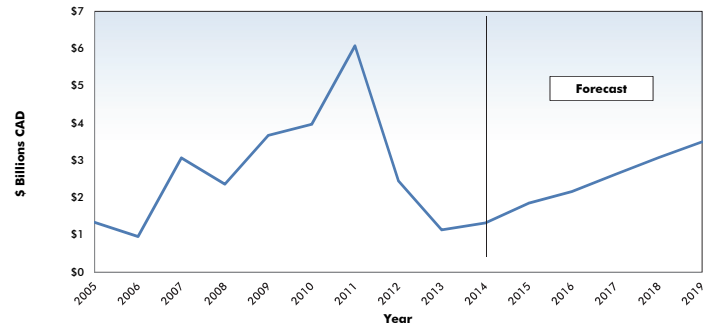
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 25: Canadian Institutional Construction Starts – CMD



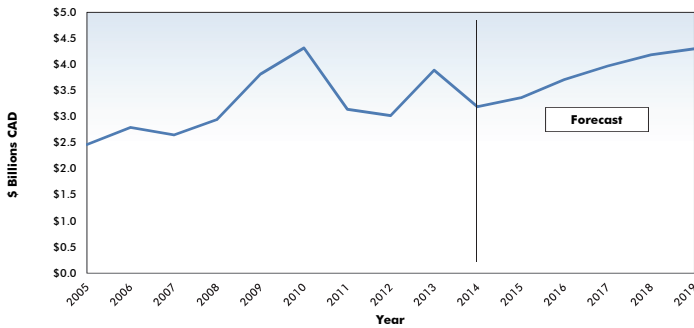
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 26: Canadian Hospital/Clinic Construction Starts – CMD



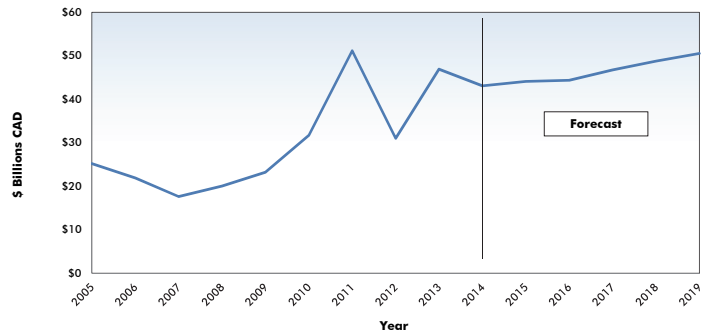
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 27: Canadian Education Construction Starts – CMD



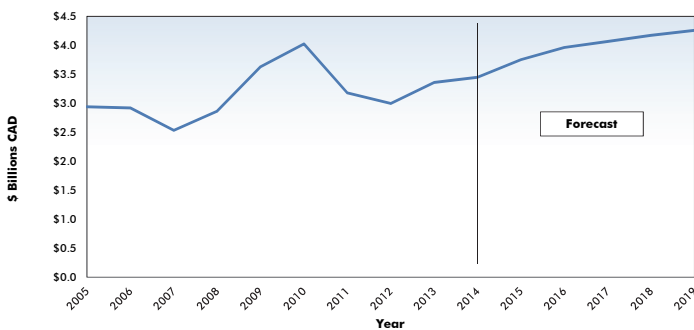
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 28: Canadian Engineering Construction Starts – CMD



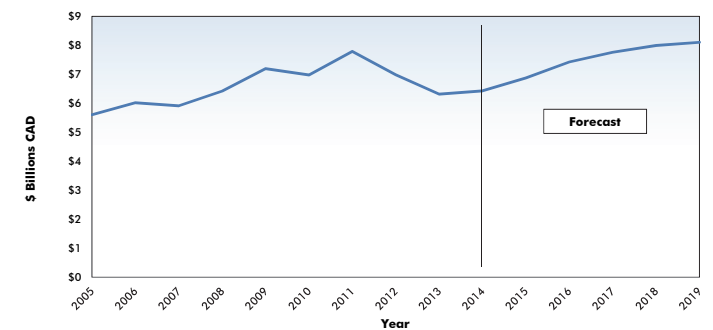
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 29: Canadian Water and Sewage Construction Starts – CMD



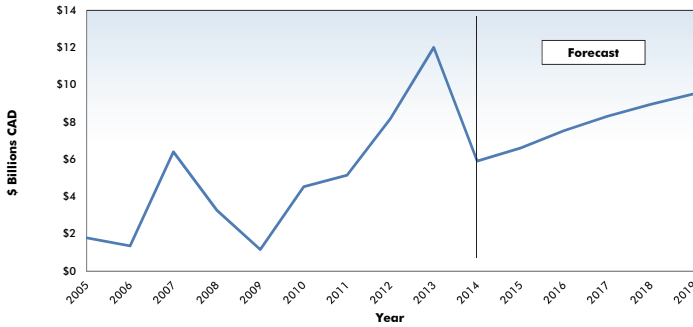
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 30: Canadian Roadwork Construction Starts – CMD



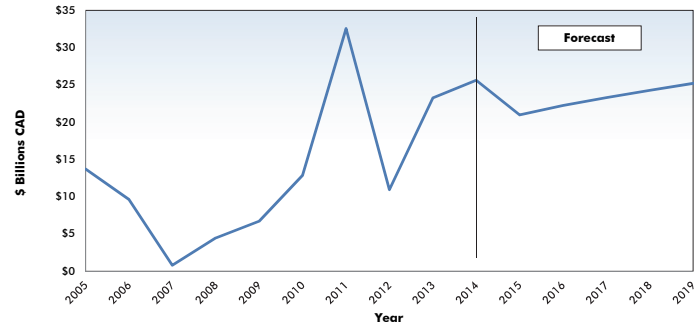
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 31: Canadian Power Infrastructure Construction Starts – CMD



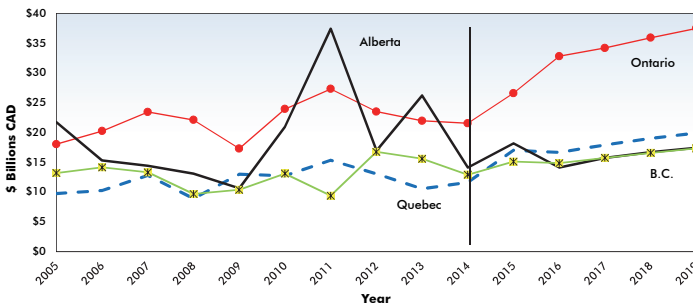
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 32: Canadian Oil and Gas Plants, Pipelines Construction Starts – CMD



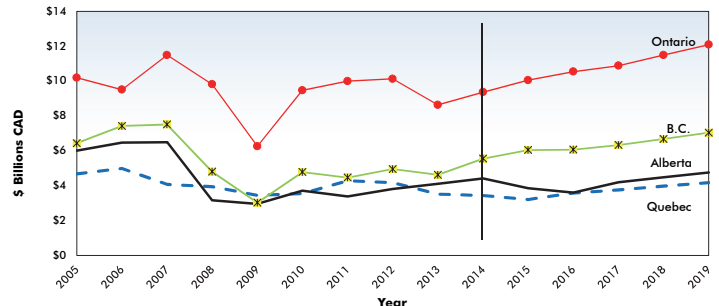
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 33: Canada Four Largest Provinces (by Population): Total Construction Starts – CMD



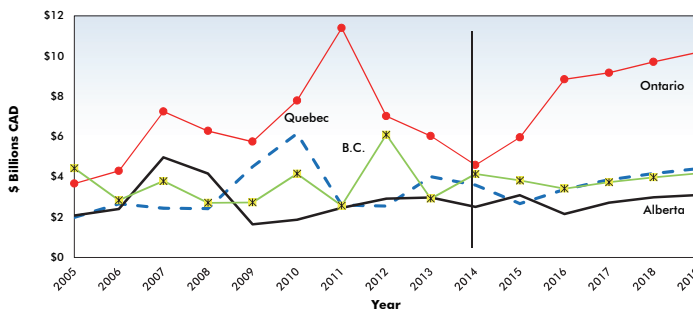
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 34: Canada Four Largest Provinces: Total Residential Construction Starts – CMD



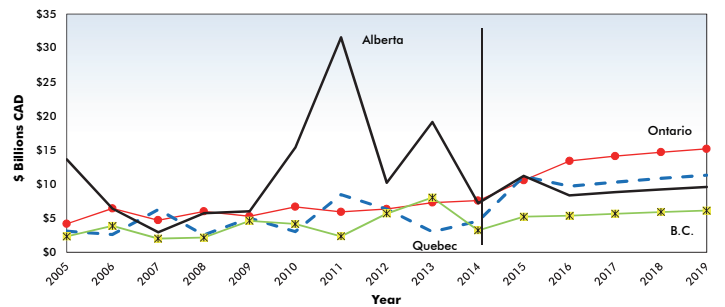
Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 35: Canada Four Largest Provinces: Total Non-residential Building Starts – CMD



Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Graph 36: Canada Four Largest Provinces: Total Engineering/Civil Construction Starts – CMD



Source of actuals: CMD "Insight" / Forecasts: Oxford Economics and CMD / Chart: CMD.

Contributors:
Oxford Economics – Abby Samp, Senior Economist; Toby Whittington, Economist / CMD – Alex Carrick, Chief Economist; Erich Falkenberg, Production Manager