

# Opportunities And Stressors For The North American Forest Industry In 2020

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January 23, 2020

See "Important Disclosures" section at the end of this report for important required disclosures, including potential conflicts of interest.

See "Price Target Calculation" and "Key Risks to Price Target" sections at the end of this report, or at the end of each section thereof, where applicable.



# Paper & Forest Products Coverage Universe



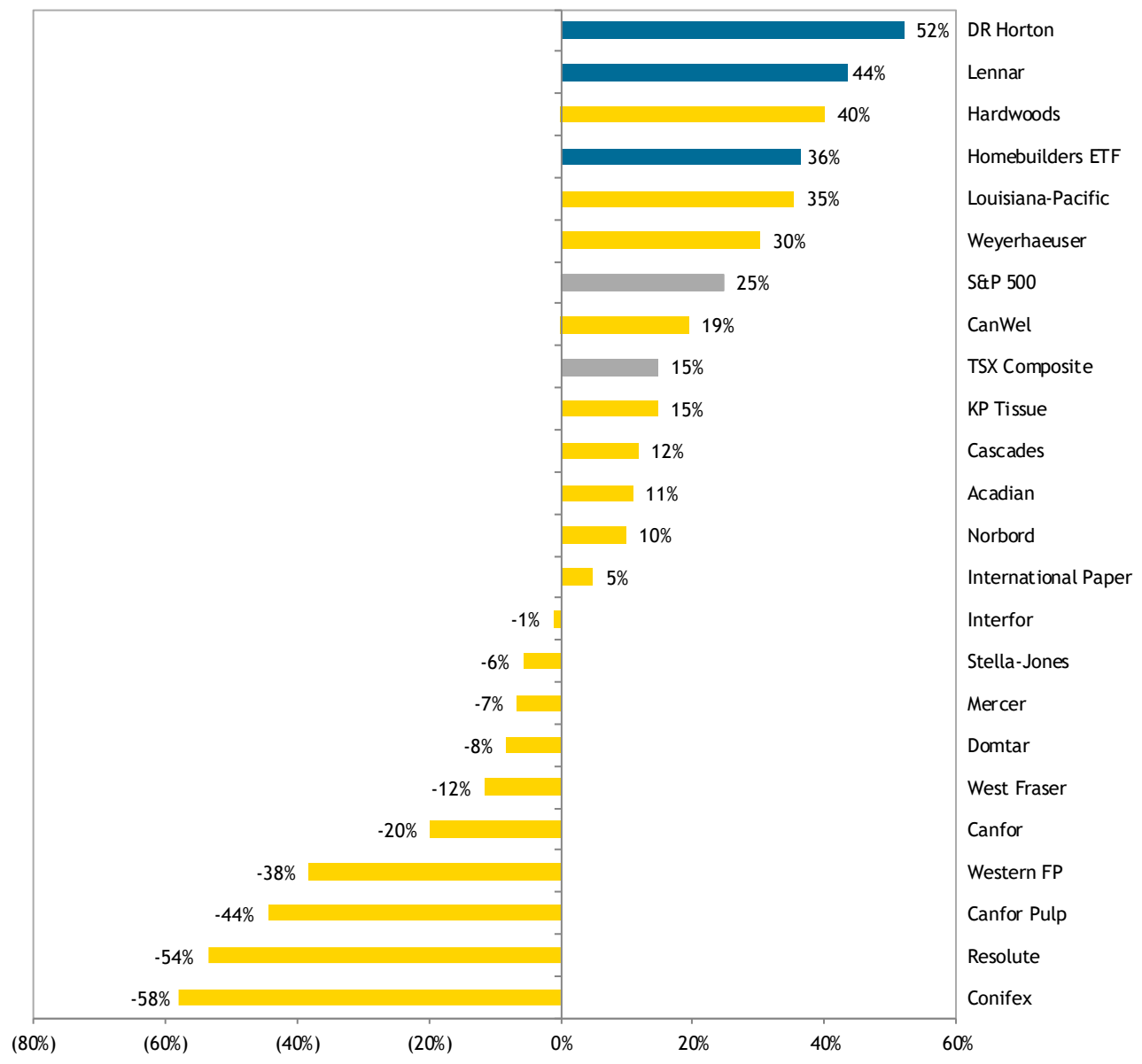
ACADIAN TIMBER



CanWel® *Cascades*



# Canadian Wood Products Names Have Generally Underperformed The TSX Composite In The Last 12 Months



**Commodities (LTM): W. SPF (+16%), SYP (+6%), OSB (+7%)**

Source: FactSet, Random Lengths and CIBC World Markets Inc.



# Opportunities And Stressors In 2020

## Opportunities

- Favorable U.S. economy
- Strong U.S. housing backdrop
  - Starts hit a 13-year high in December
  - Mortgage rates down 80 bps Y/Y
  - Strong order growth from builders
- R&R growth expected to remain positive
- Continued Chinese tissue consumption growth
- Containerboard/boxboard as more sustainable packaging alternatives to plastic

## Stressors

- U.S. / China trade tensions
- Labor availability
- Lumber: Risks from European imports
- Pulp: BEK inventories remain elevated
- Papers: Unstable decline rates
- Packaging: Paper capacity conversions



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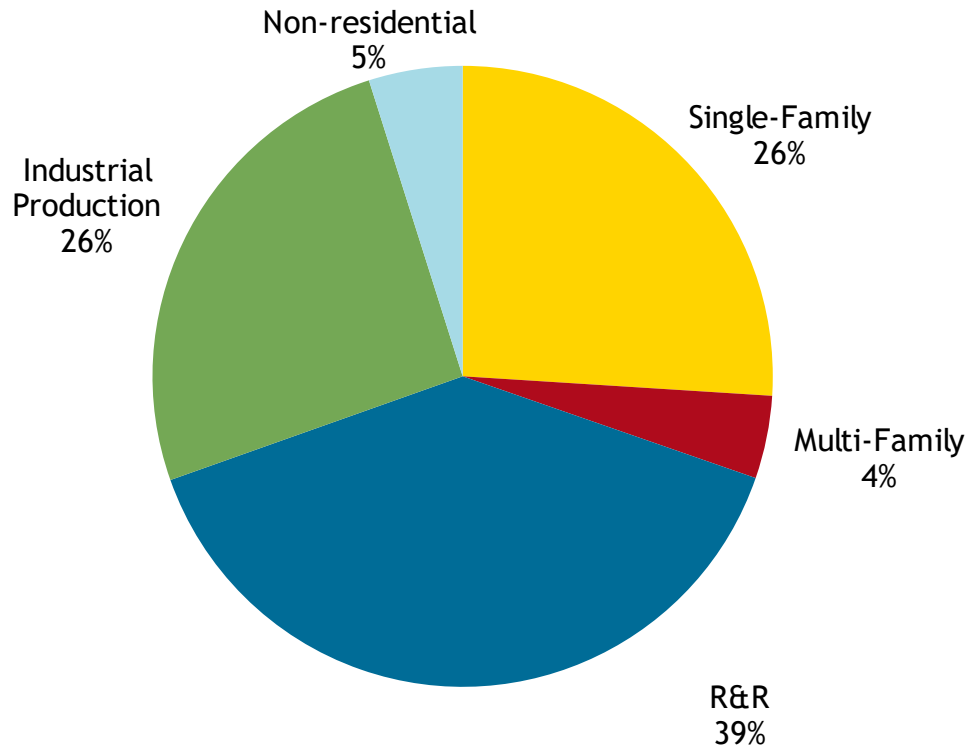
# Housing Market

# North American Housing Market Is The Most Important Demand Driver

- Housing-related end-markets comprise ~70% of U.S. mid-cycle demand for lumber (~80% for OSB).
- New res construction typically represents 30% of U.S. lumber demand and over 50% of OSB demand.

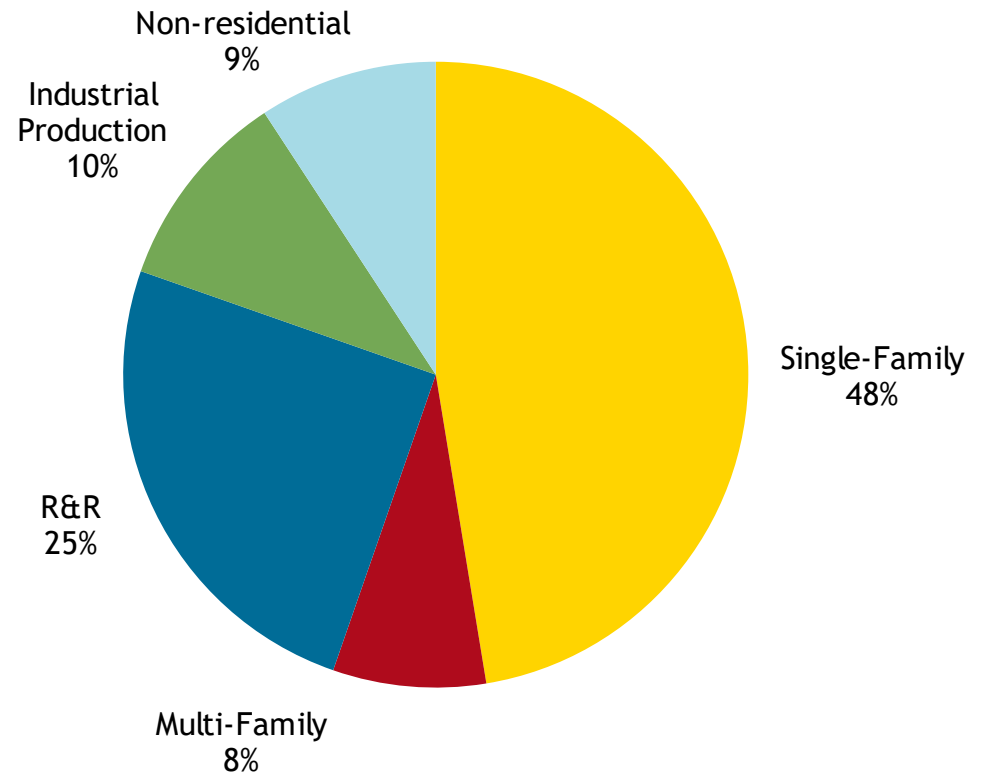
## Lumber

2018

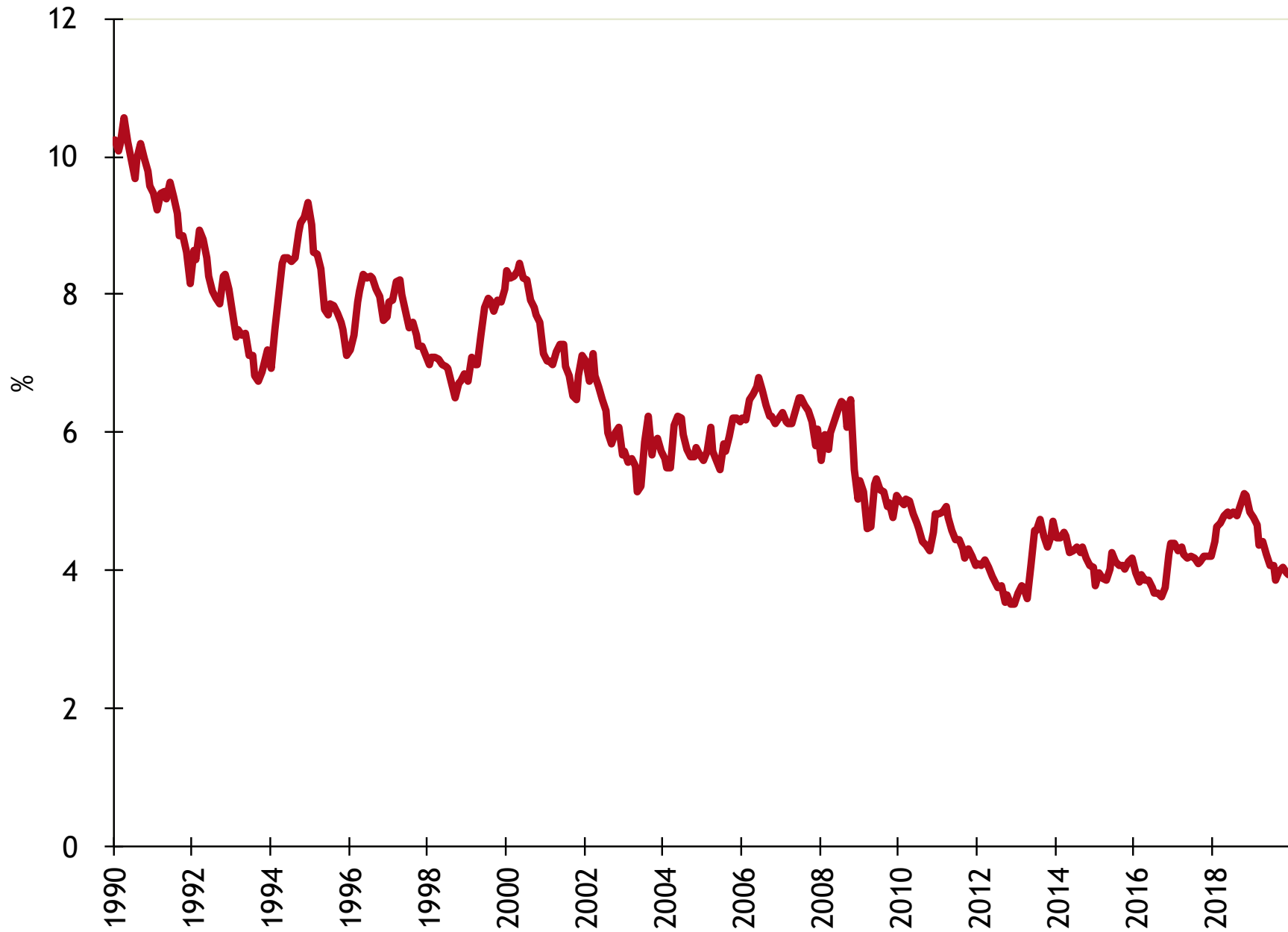


## OSB

2018



# 30-yr Fixed Rate Mortgage Rate = 3.65% (15-yr Avg = 4.7%)

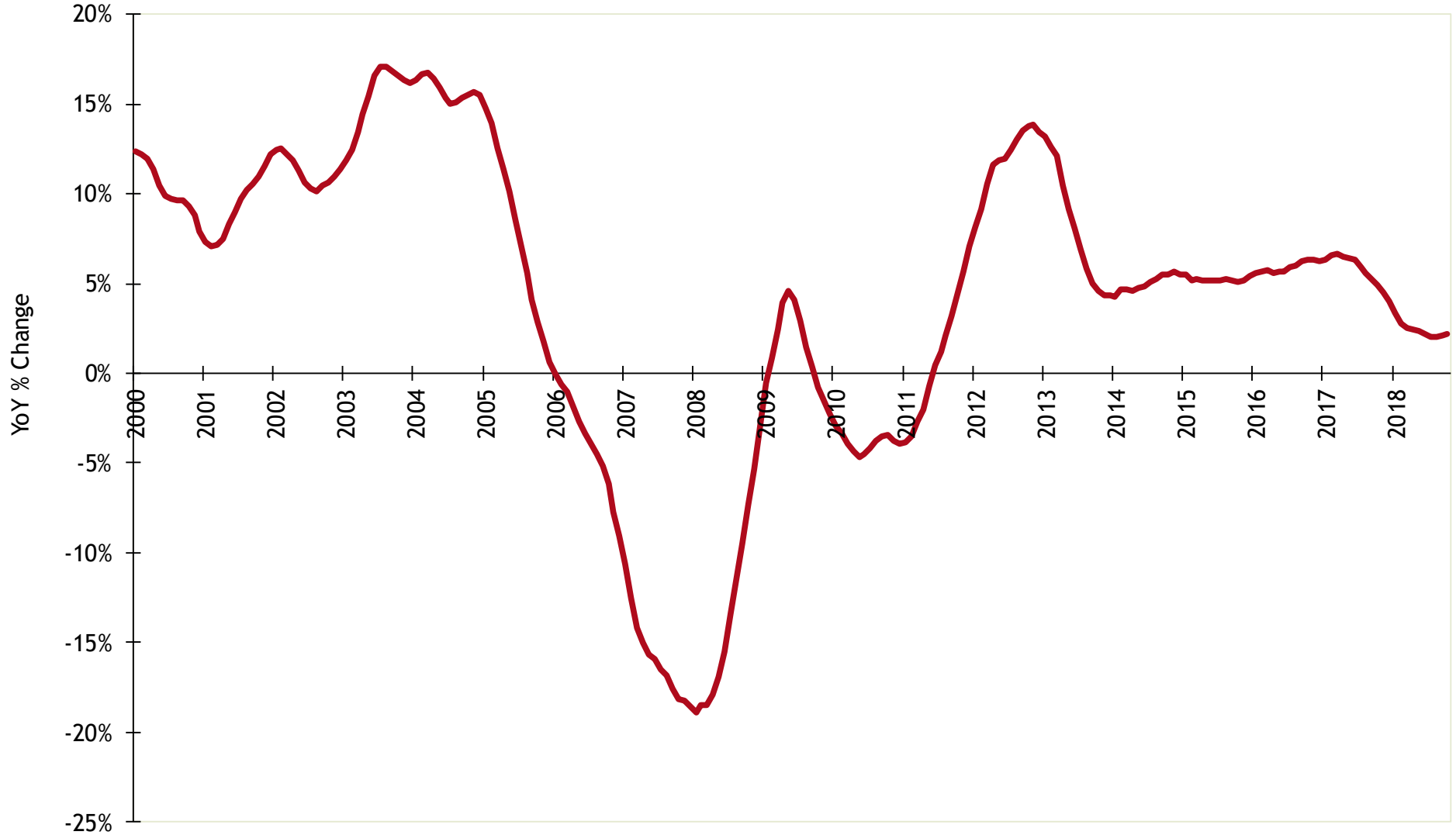


Source: MBA and Bloomberg.



# Case-Shiller Home Price Indices Up 2% Y/Y

S&P/Case-Shiller Composite-20 Home Price Index

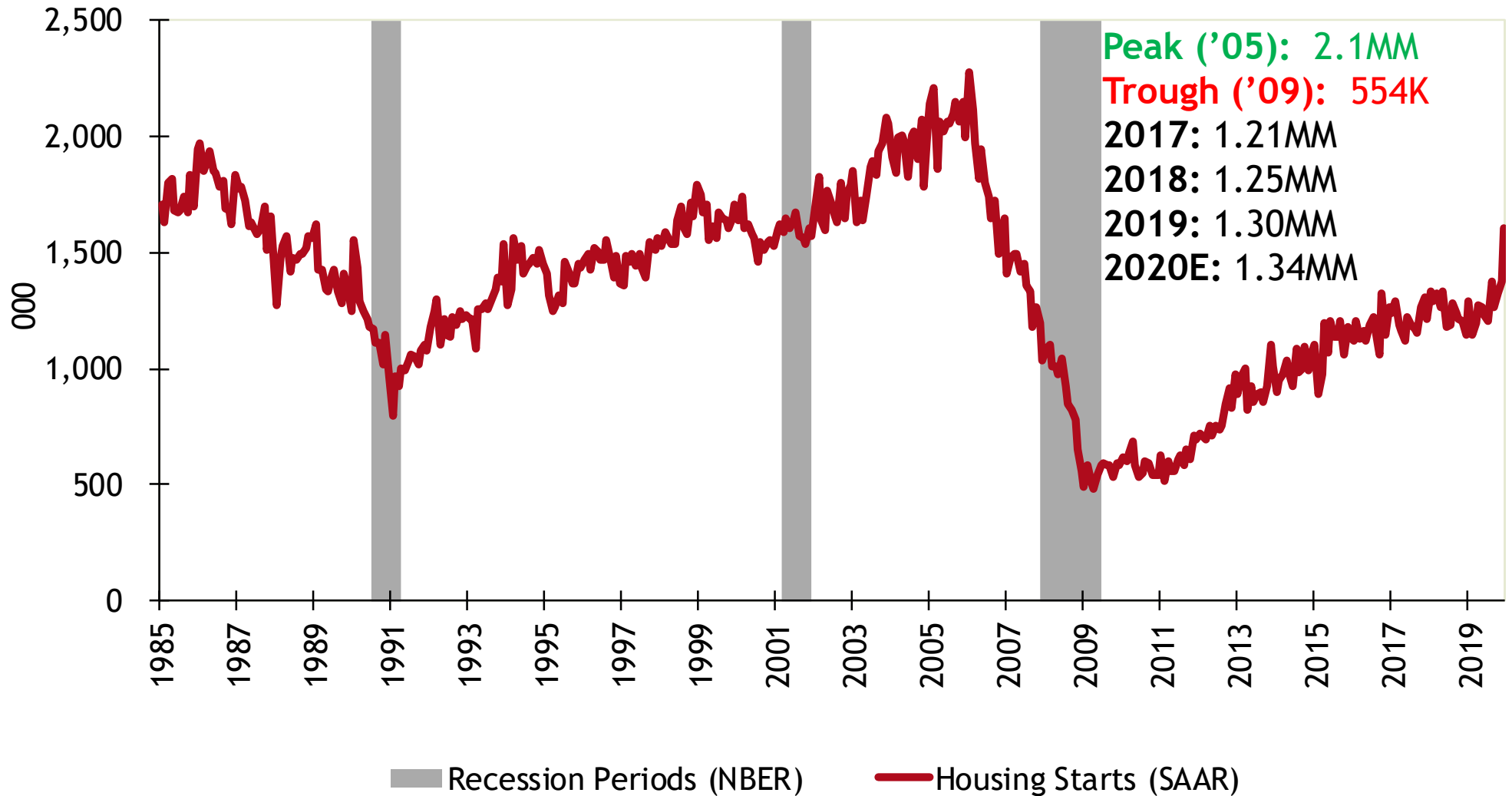


Source: Case-Shiller and Bloomberg.





# U.S. Housing Starts - Consensus Expecting Growth of 2% In 2020 And 2% In 2021 (CIBCe +3%/-6%)



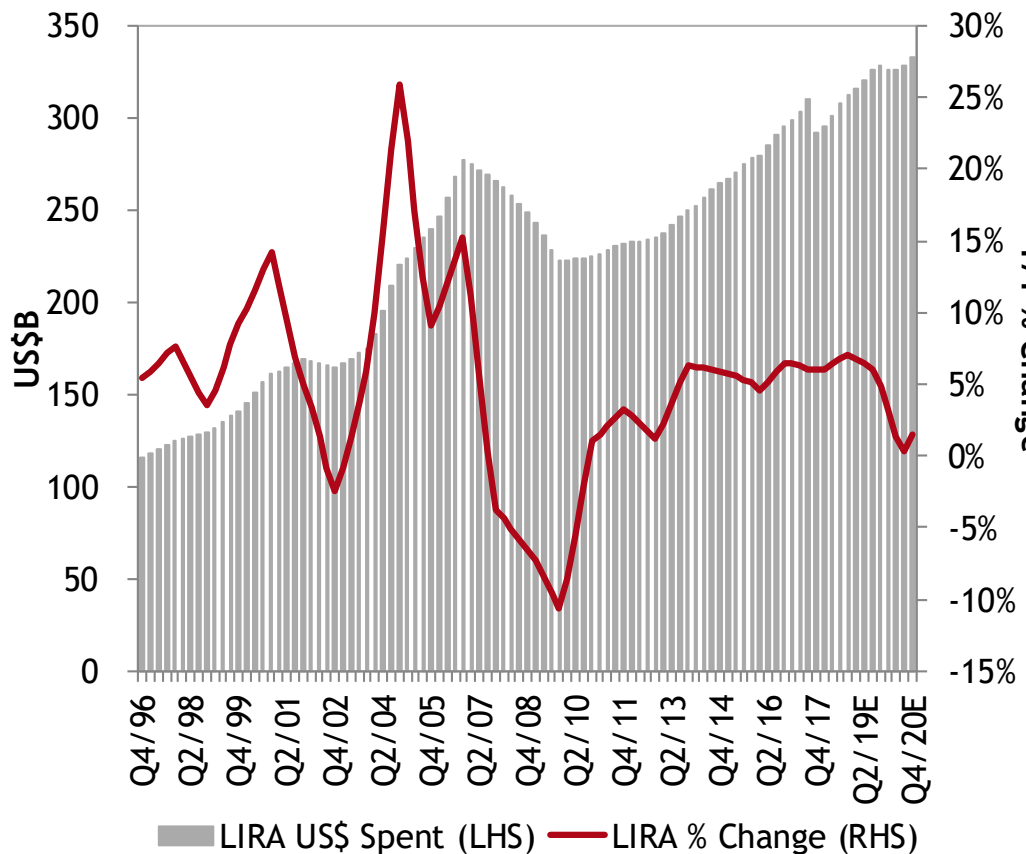
Source: National Association of Homebuilders, National Association of Realtors, MBA, FEA, Fannie Mae, Freddie Mac, U.S. Census Bureau, NBER, Bloomberg and CIBC World Markets Inc.



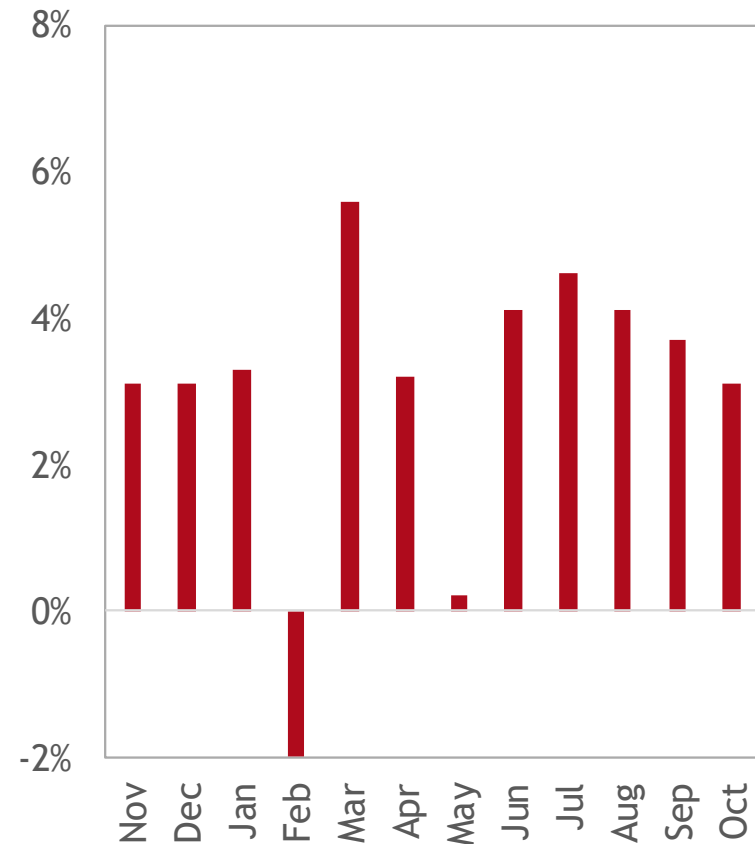
# Repair & Remodel: U.S. Home Equity Levels Up 125% Since 2011, Supportive Of Further Spend

- Home Depot is guiding towards comparable sales growth in 2020 of 3.5%-4.0% (vs. 3.5% guide for 2019).
- The LIRA, which provides a longer-term picture through its capture of estimated quarterly (seasonally adjusted) renovated spending for the next 12 months, projects deceleration in R&R spending to continue, with Y/Y growth expected to decline from 4.8% in Q4/19 to below-average levels of 1.5% by Q4/20 (better than the prior forecast calling for growth to turn negative by Q3).

U.S. Leading Indicator Of Remodeling Activity (LIRA)



Home Depot Same-Store Sales

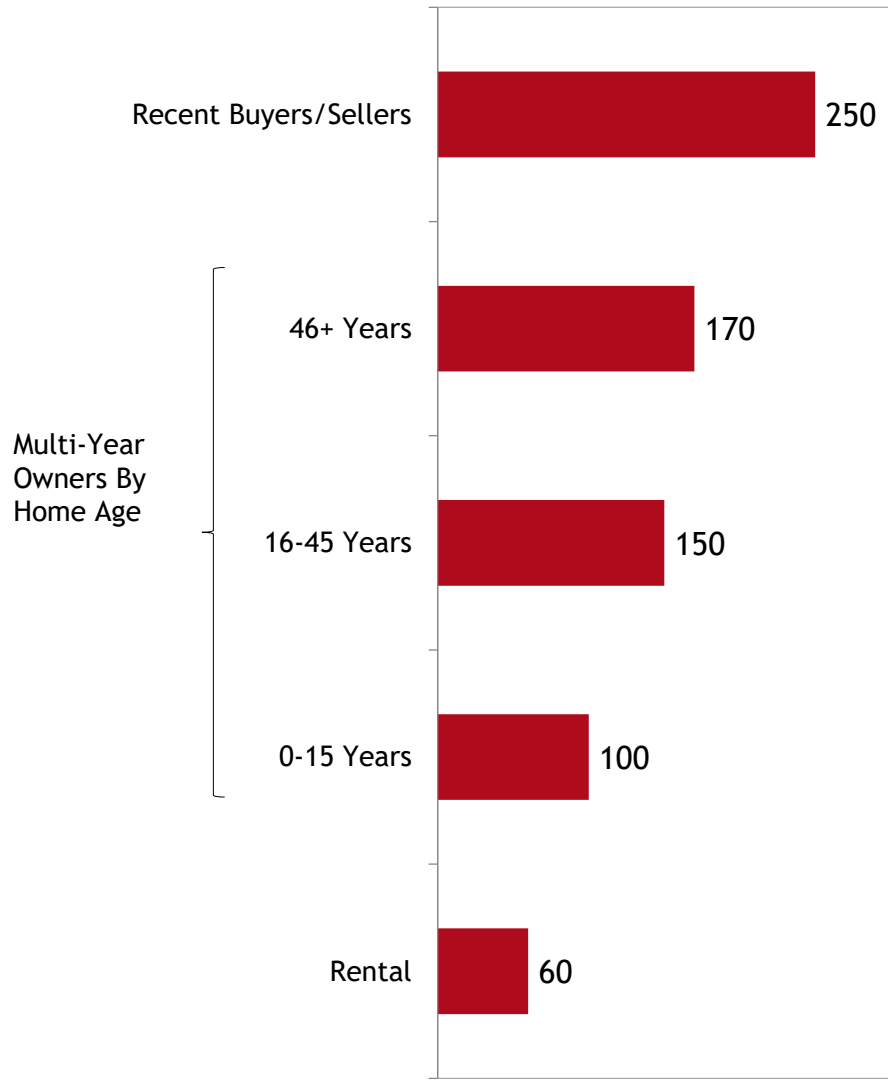


Source: Harvard JCHS and CIBC World Markets Inc.

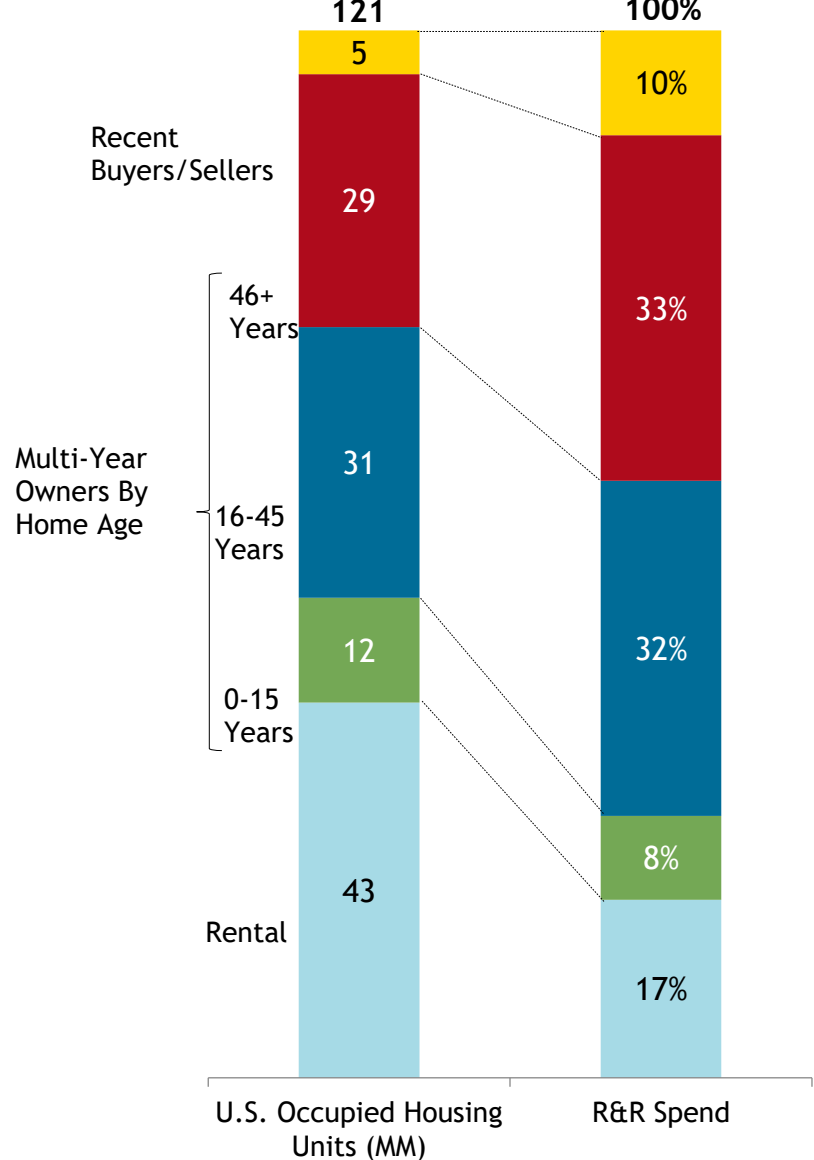


# Ageing Housing Stock Lays Foundation For Strong Underlying R&R Demand

Indexed R&R Spend



R&R Spend Mix

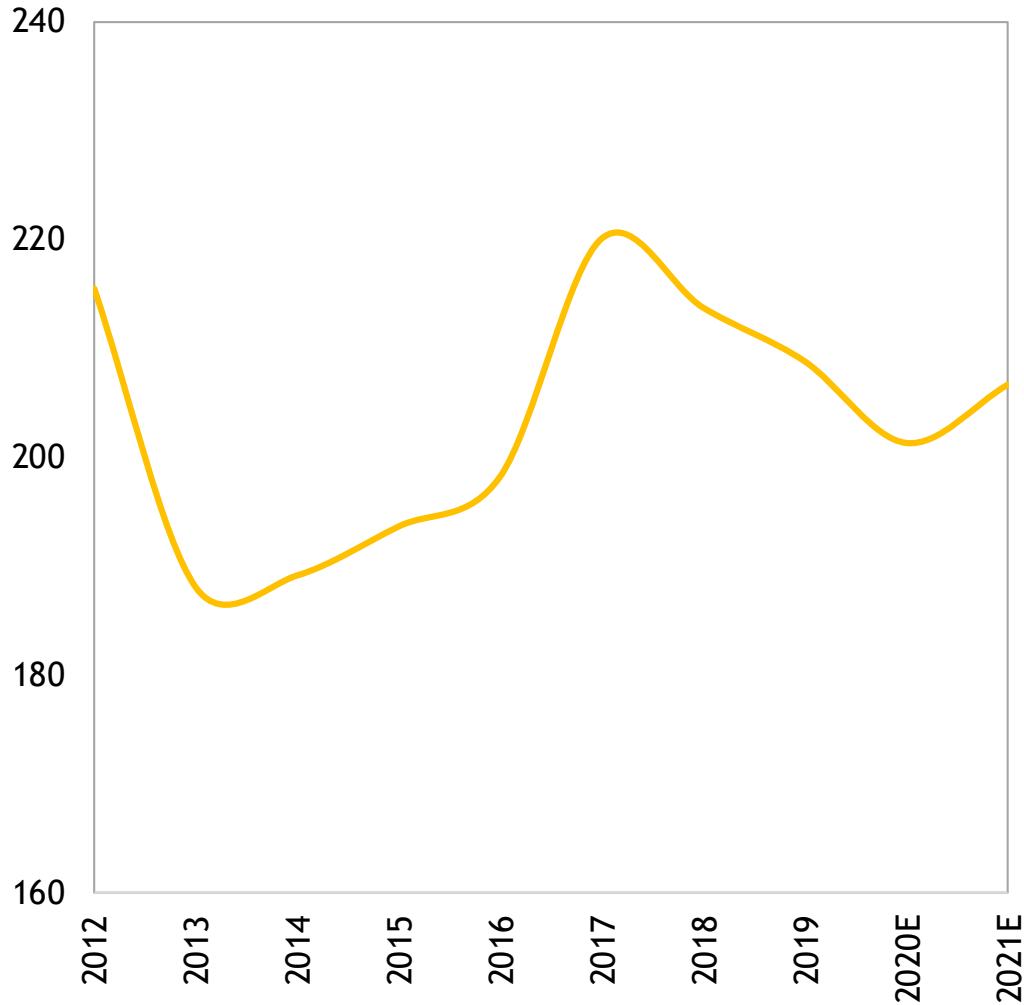


Source: Fortune Brands, Census, NAR, Houzz, and Harvard Joint Center For Housing Studies.

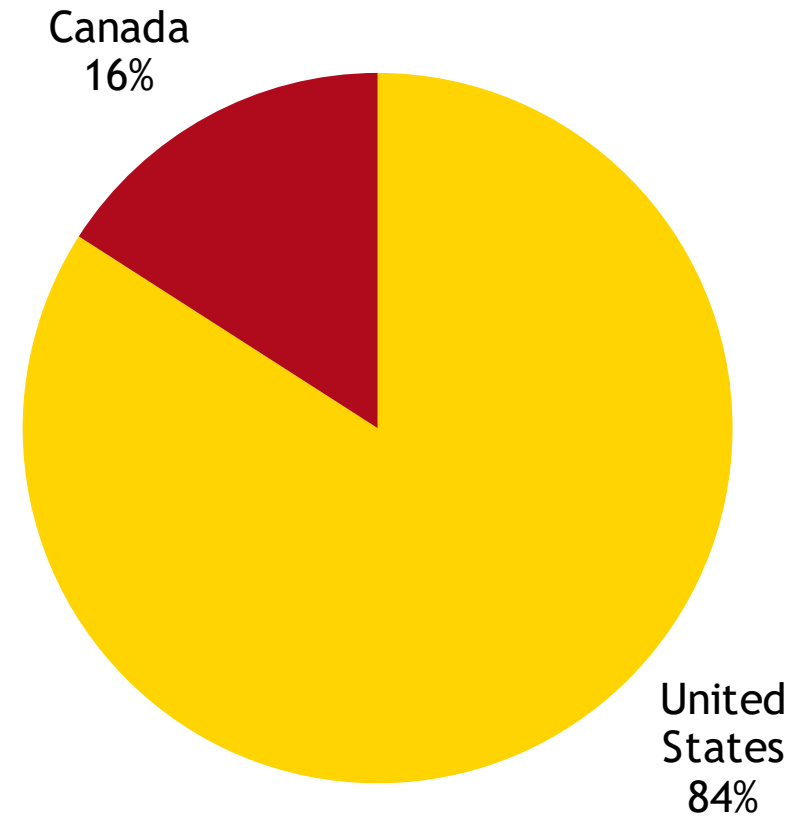


# Canadian Housing Starts Expected To Decline 4% In 2020 To 201K Before Rising To 207K In 2021 (+3%)

### Canada Housing Starts, SAAR



### North America Lumber Consumption 56.5 Bbf (2019E)



Source: CIBC Economics and FEA.

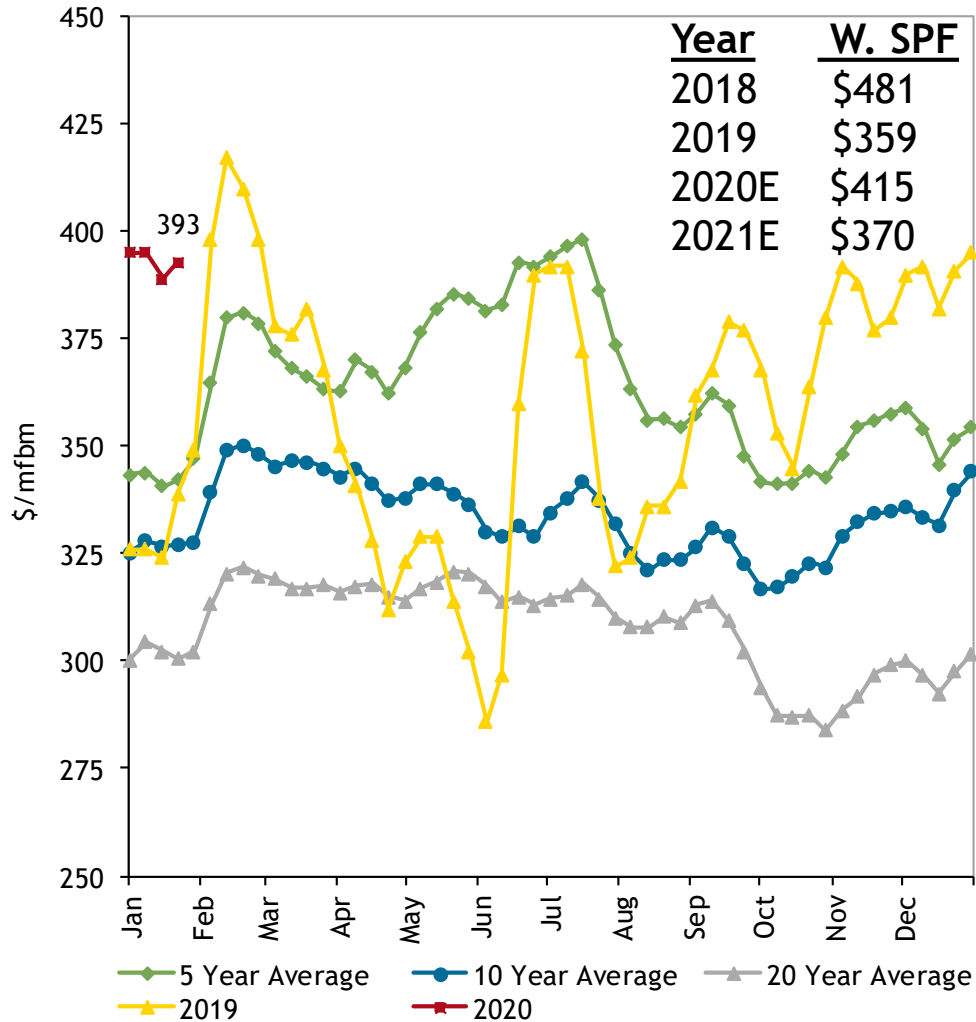


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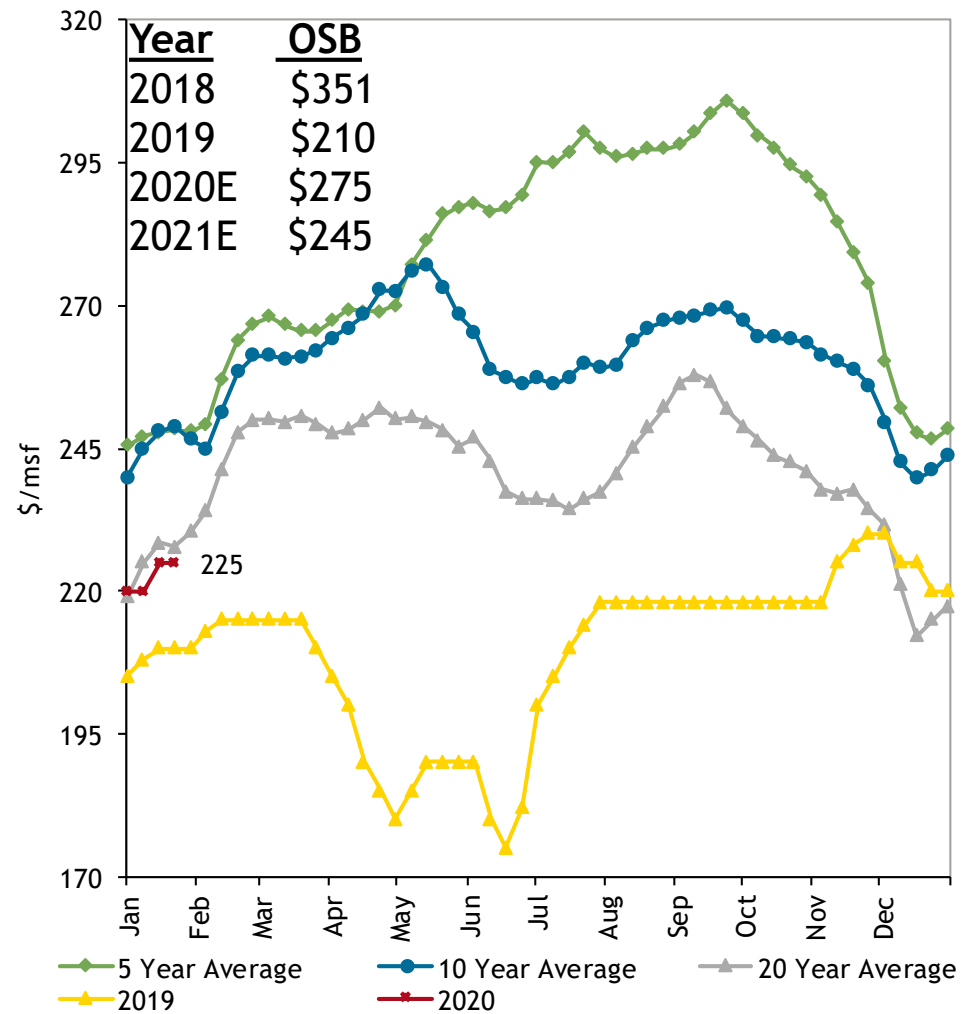
# Wood Products

# Expecting A Rebound In Wood Products Prices This Year

## W. SPF Lumber



## North Central OSB

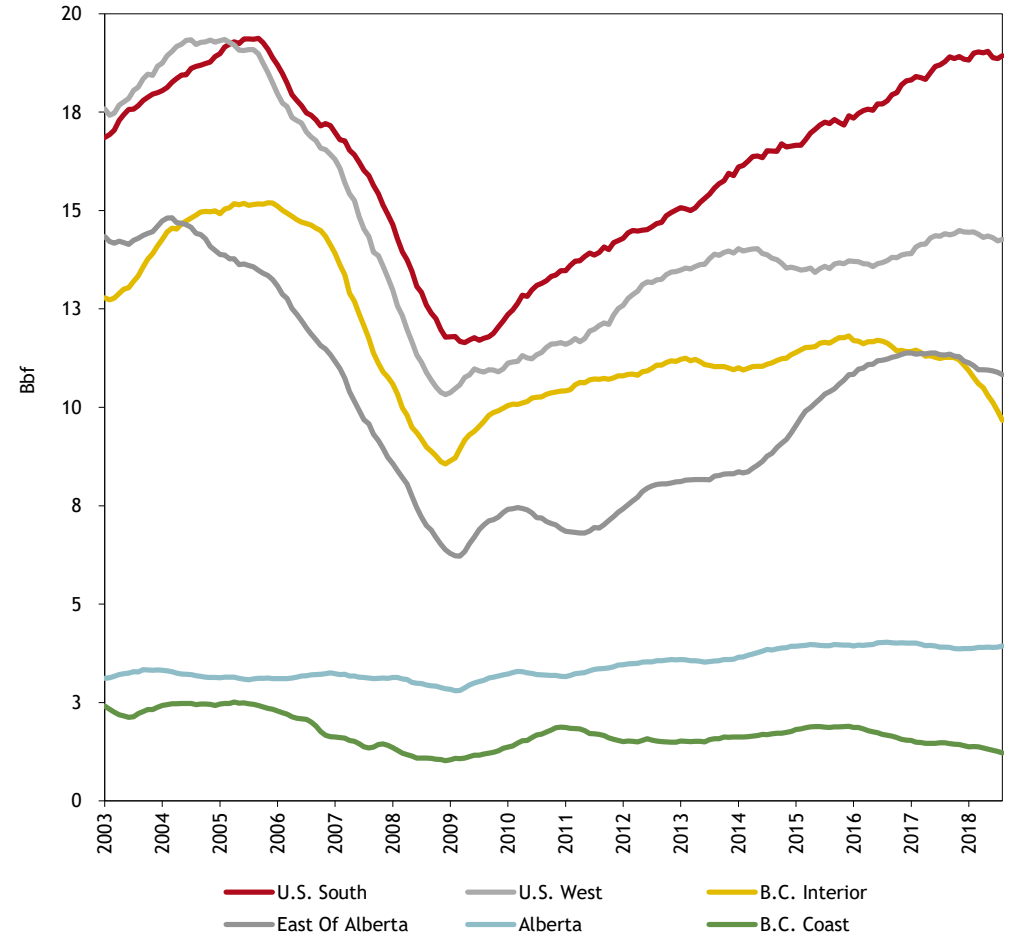
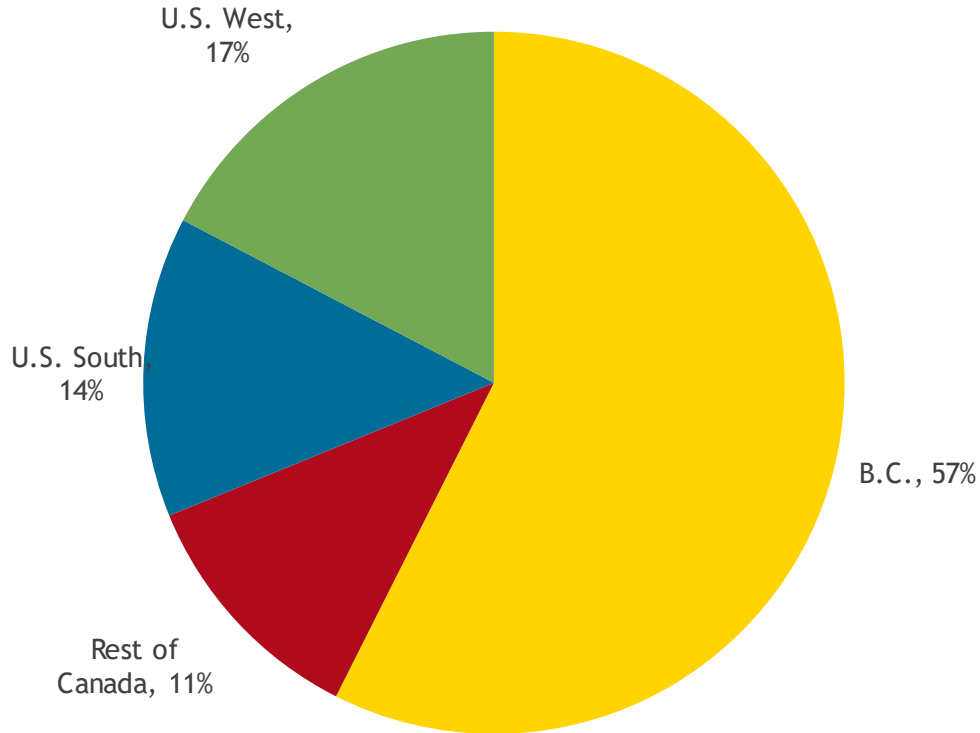


Source: Random Lengths and CIBC World Markets Inc.



# 5% Of North American Lumber Supply Removed Over The Past Year

~ 3.4 Bbf In Permanent Curtailments

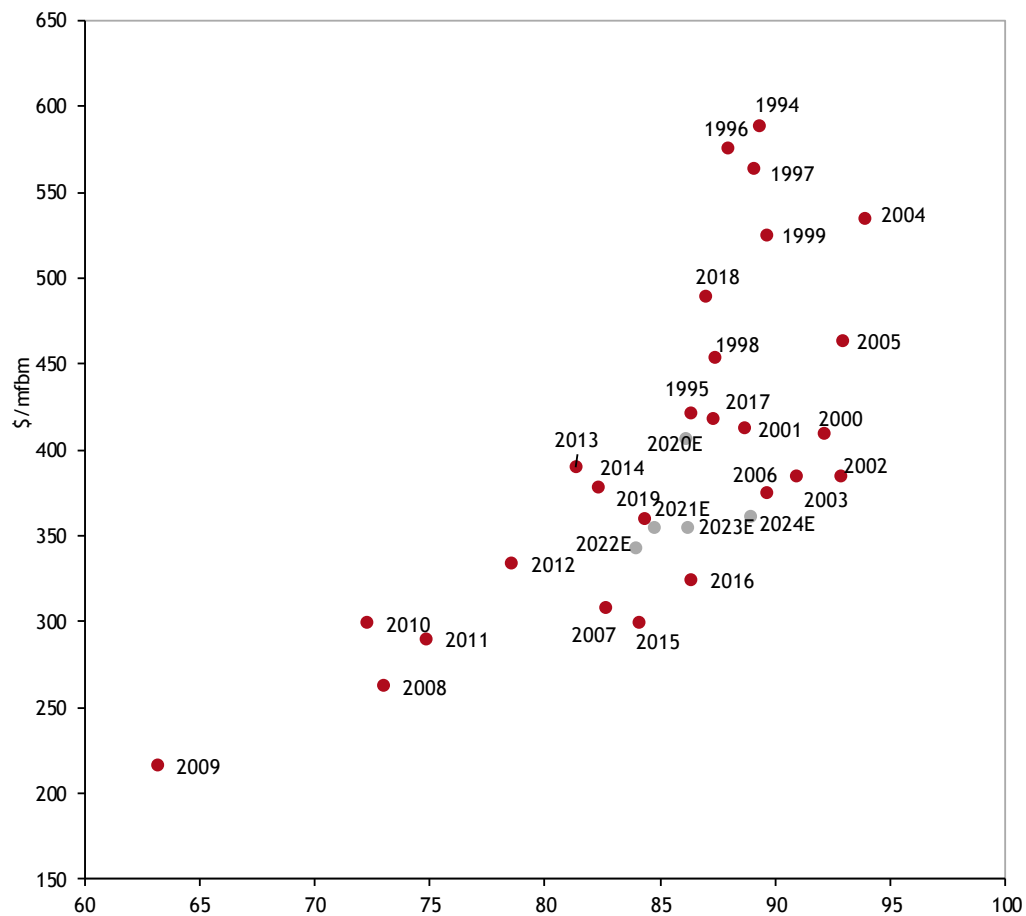


Source: Company reports, WWPA, StatsCan, Random Lengths, BC Ministry of Forests and CIBC World Markets Inc.

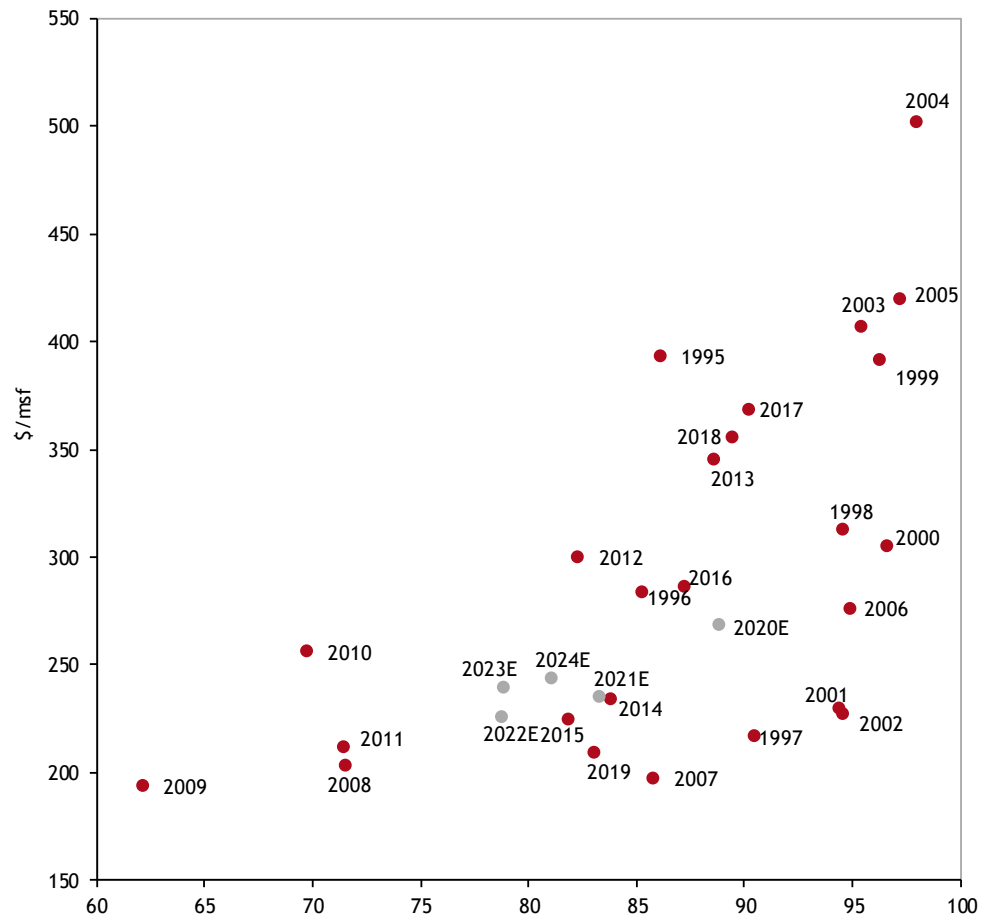


# North American Operating Rates And Real Prices (2019 Dollars)

## W. SPF Lumber



## OSB North Central



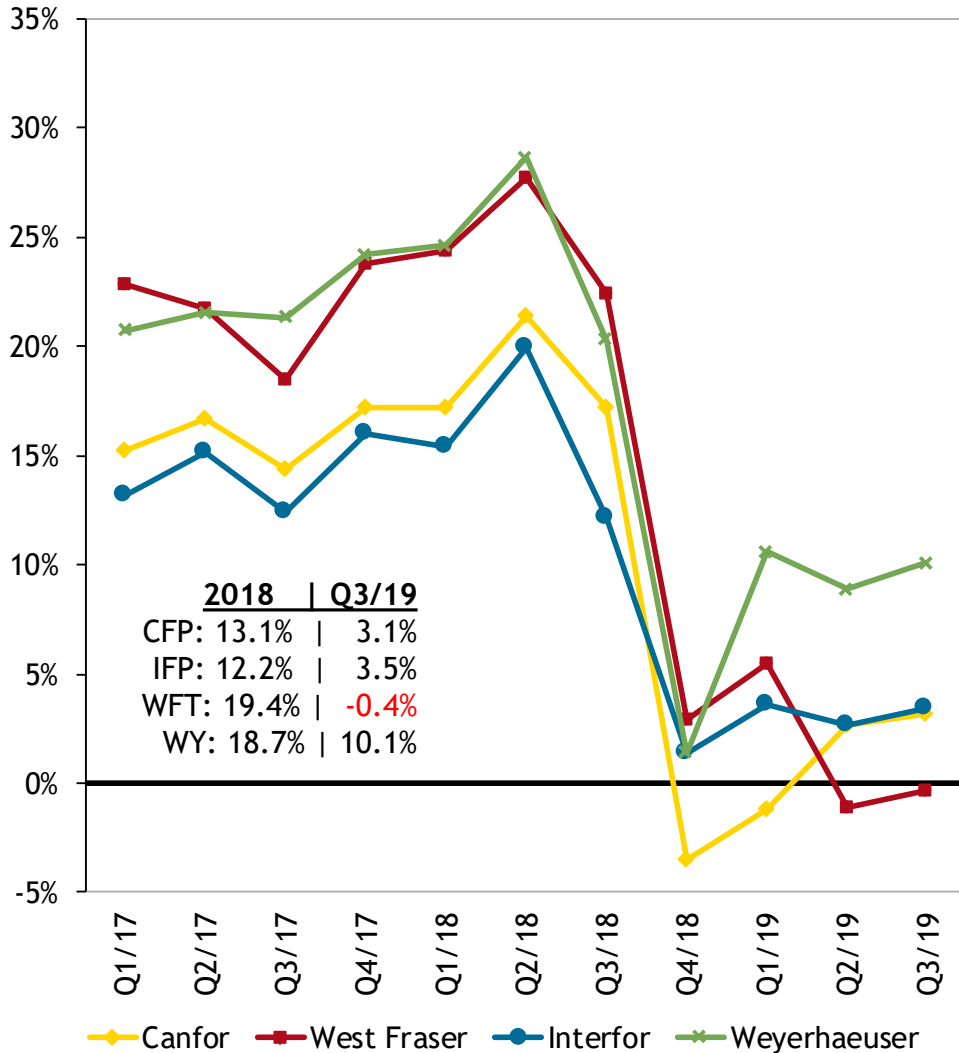
Source: APA, FEA, Company reports and CIBC World Markets Inc.



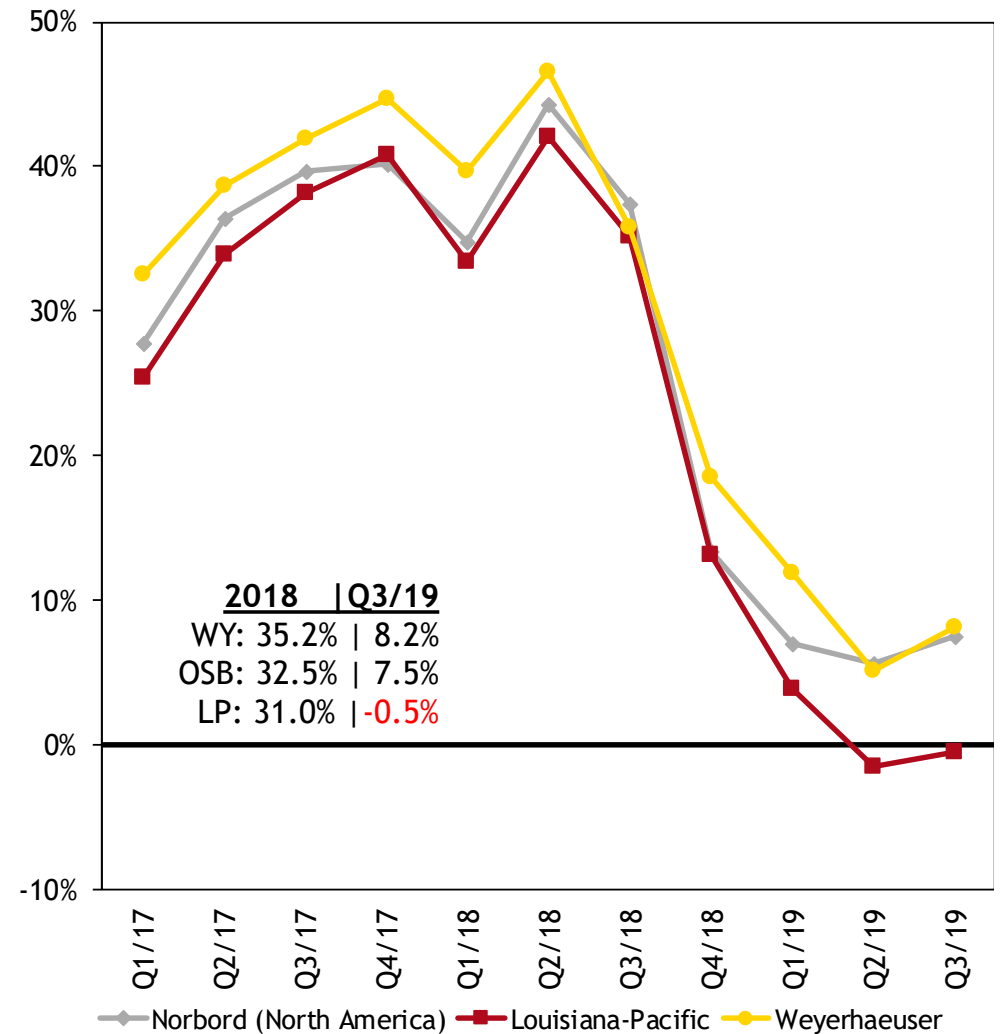


# Profitability Plunged In 2019

## Lumber EBITDA Margins



## OSB EBITDA Margins



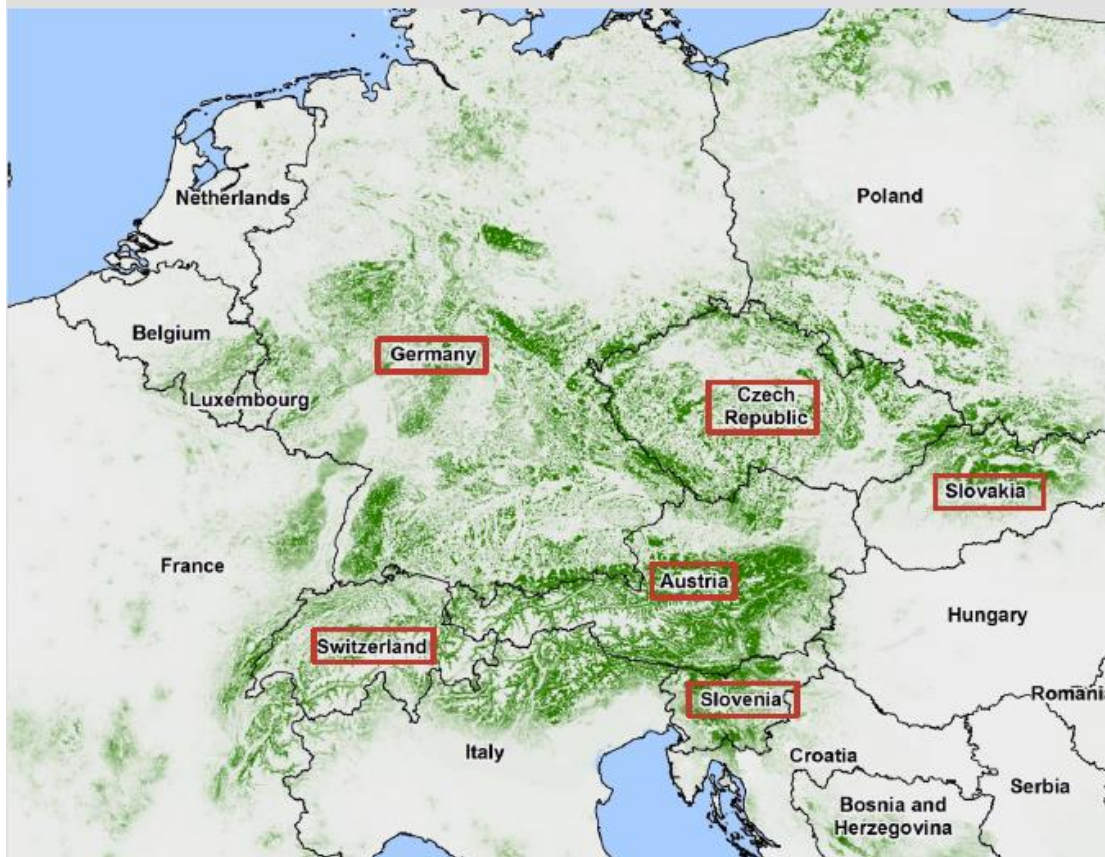
Source: Company reports and CIBC World Markets Inc.



# European Spruce Beetle Epidemic

- Wind and ice storms, coupled with drought and mild winters, have contributed to the record spruce beetle outbreaks under way in Central Europe.
- Subsidized salvage harvests have contributed to depressed prices. Ukraine has also shifted lumber exports from Europe to China.

Map of Central European Spruce Forests



## Spruce inventory (2018E)

- 2.89 billion m<sup>3</sup>
- ~41% of growing stock inventory
- 2018 damage total: ~67MM m<sup>3</sup>
- 2019 damage in some areas estimated to be 40x 2018 impact

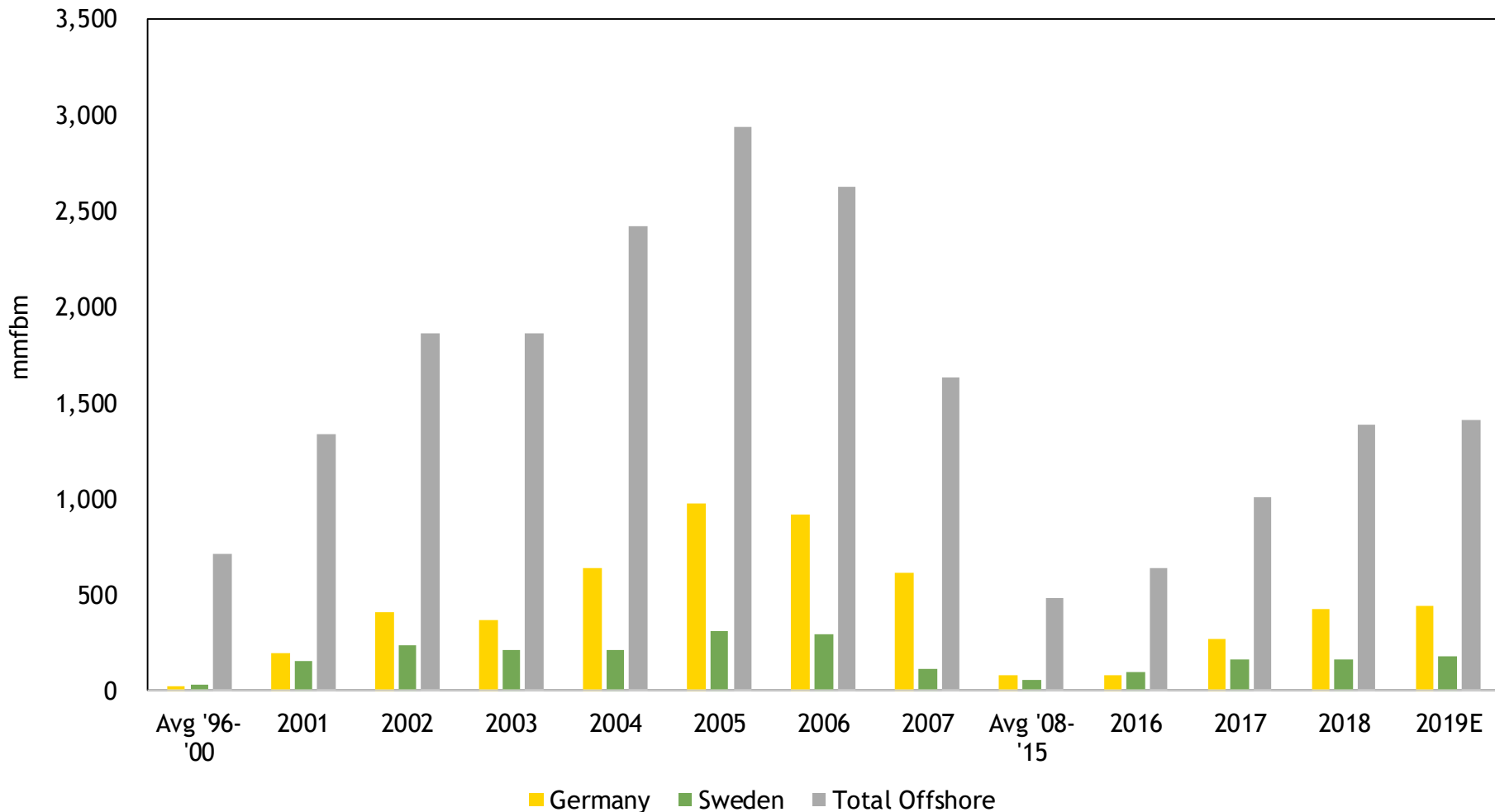
Salvage volumes have depressed log and lumber prices across Central Europe.

## British Columbia MPB Parallel

- Lodge pole pine inventory ~1.35 billion m<sup>3</sup>
- Peak damage recorded in 2005 at ~140MM m<sup>3</sup>
- Total damage expected to be ~731MM m<sup>3</sup>
- MPB kill occurred primarily over seven years

# Lumber - European Imports From Germany Here To Stay

- While North American offshore lumber totaled ~1.4 Bbf/year in 2018 (and is tracking ~1.4 Bbf/year 11-Mo YTD), this is still well below the ~2.7 Bbf average annual rate observed in 2004-2006.
- Offshore imports increased slightly in November (+2% M/M) fueled by a big jump in shipments from Germany (+34%), partially offset by a decline from Sweden (-85%).

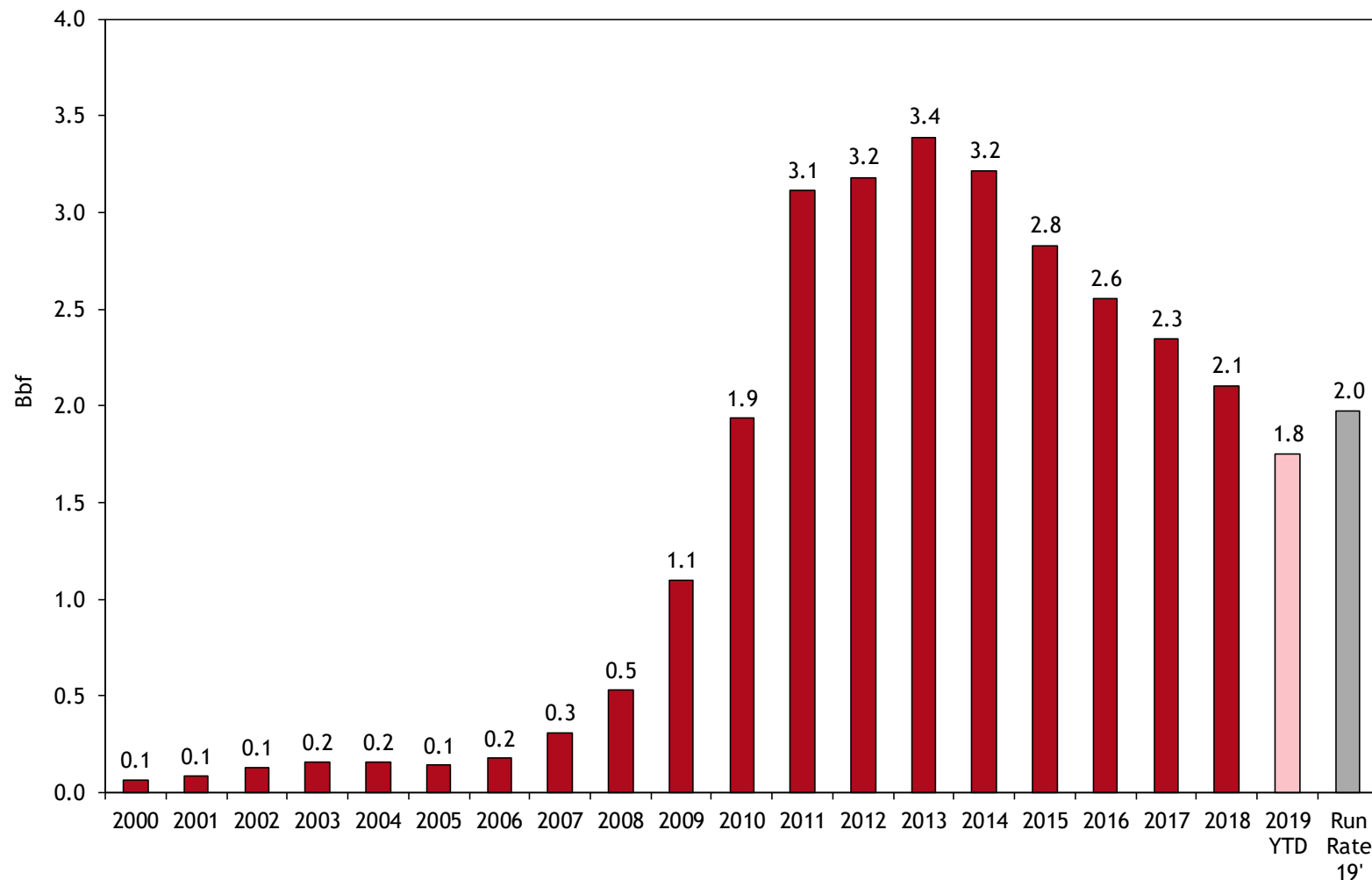


Source: U.S. Census Bureau and CIBC World Markets Inc.



## Lumber - B.C. Offshore Exports To China (2018 = Equivalent Of ~175K U.S. Housing Starts)

- Chinese softwood lumber imports are up 14% YTD through October (after moving 1% lower in 2018).
- Chinese softwood lumber imports this year have been supported by its largest supplier, Russia (+12%), second-largest supplier, Canada (+14%) and third-largest supplier, Finland (+8%).
- B.C. lumber exports to China were down 6% 11-Mo YTD in 2019.



Source: BC Stats, FEA and CIBC World Markets Inc.

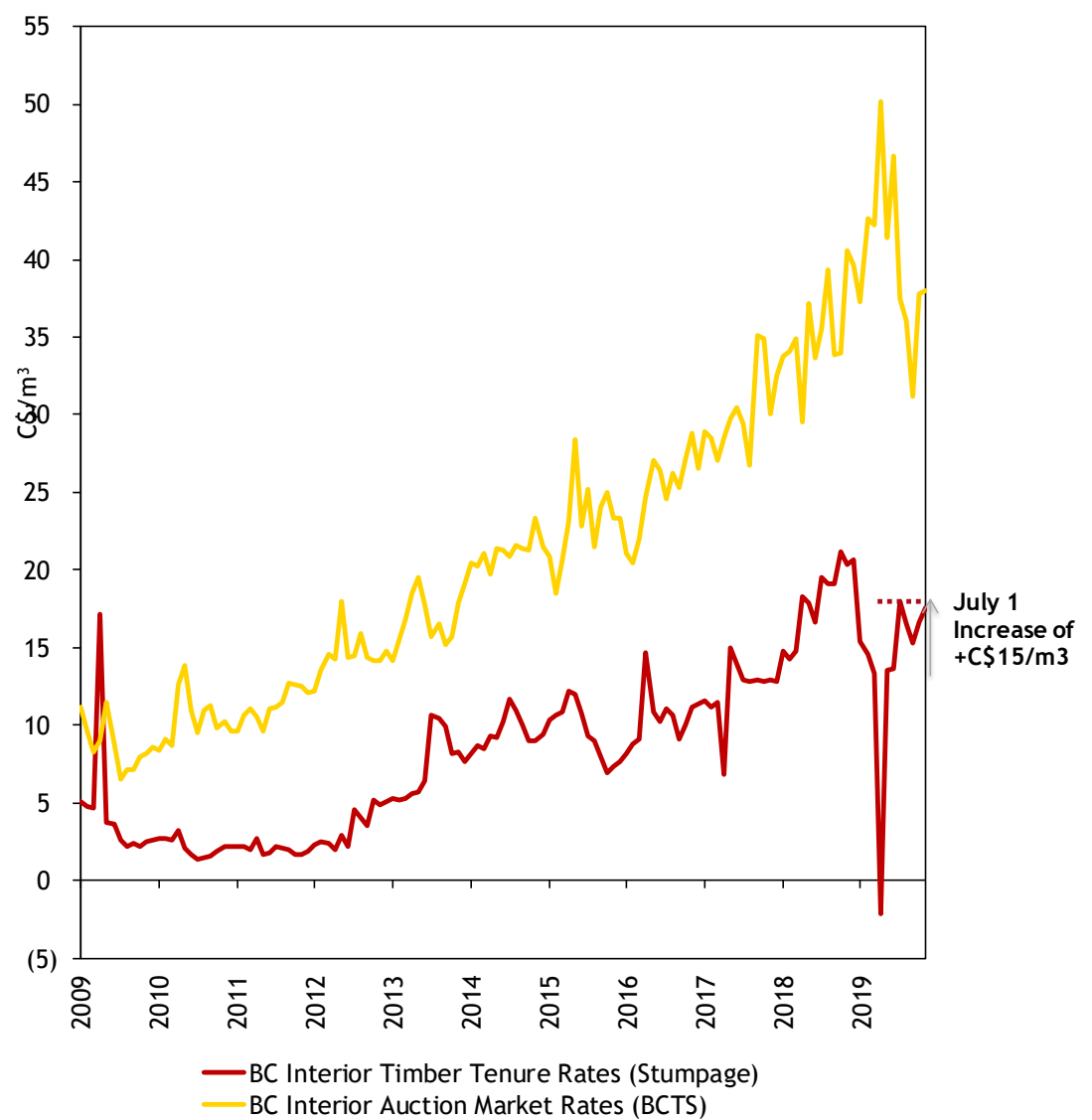
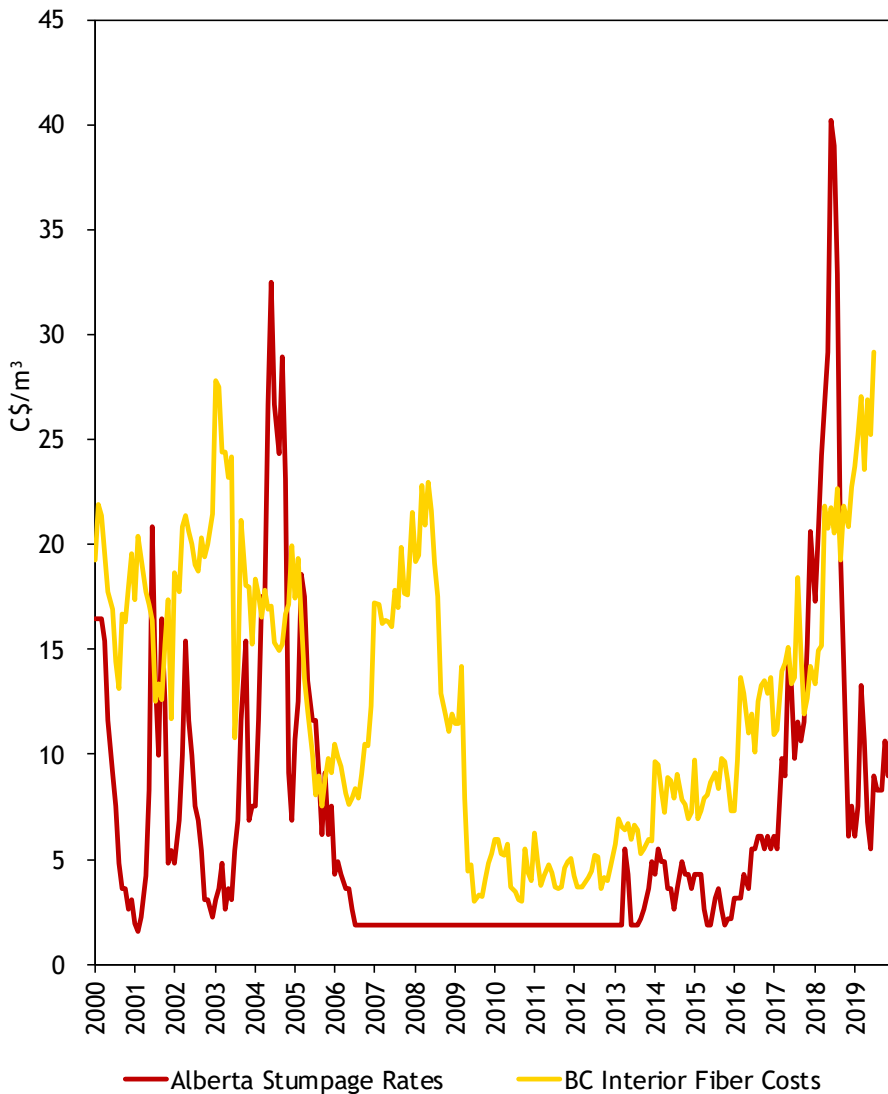
# Lumber Capacity Additions Almost All Targeting The U.S. South (Highest Margins)

Company	Location	Commercial Start-Up Date	Capacity (mmfbm/yr)	Total Cost (US\$MM)	Capacity Valuation (US\$/mfbm)	Type
Conifex	El Dorado, AR	Jan 2018	180	71	\$394	Brownfield
Cross City Lumber	Cross City, FL	April 2018	60			
Vicksburg FP	Vicksburg, MS	July 2018	100			Repurposed (ex-hardwood)
Weyerhaeuser	Dierks, AR	Summer 2018	80			Rebuild
West Fraser	Opelika, AL	Q3/18	110			Replacement mill (net cap)
GP 1	Talladega, AL	Nov 2018	230	110	\$478	Greenfield
Biewer	McBain, MI	Q4/18	48	31	\$653	Debottlenecking
Charles Ingram Lumber	Effingham, SC	Q4/18	70	33	\$471	Debottlenecking
Interfor	U.S. South	2018	87			Debottlenecking
Klausner	Enfield, NC	2019	150	130	\$867	Greenfield
Weyerhaeuser	Millport, AL	March 2019	215			Brownfield
Georgia-Pacific	Brunswick, GA	Feb 2019	(100)			Closure
Hunt / Tolko JV	Urania, LA	March 2019	200	115	\$575	Greenfield
Swanson Group	Glendale, OR	March 2019	(180)			Closure
Georgia-Pacific	Coos Bay, OR	April 2019	(150)			Closure
Rex Lumber	Troy, AL	July 2019	350	120	\$343	Greenfield
GP 2	Warrenton, GA	Summer 2019	350	145	\$414	Greenfield
GP	Warrenton, GA	Summer 2019	(100)			Closure
Great Southern (Abbeville Fiber)	Abbeville, AL	August 2019	50	42	\$830	Greenfield
Angelina FP	Lufkin, TX	Sept 2019	220	100	\$455	Greenfield
Biewer	Newton, MS	November 2019	100	40	\$400	Debottlenecking
West Fraser	U.S. South	H2/19 (CIBCe)	110			Replacement mill (net cap)
Canfor	U.S. South	2019	50			Debottlenecking
Pleasant River Lumber	Maine	End Of 2019	120	32	\$267	Debottlenecking
GP 3	Albany-Dougherty, GA	Q4/19	300	160	\$533	Greenfield
Interfor	U.S. South	2019	100			Debottlenecking
Southeastern / Tolko JV	Ackerman, MS	Late 2020	245			Brownfield
Canfor	U.S. South	2020	150			Debottlenecking
Westervelt	Thomasville, AL	Late 2020	250	190	\$760	Greenfield
Interfor	U.S. South	2020	100			Debottlenecking
West Fraser	U.S. South	H2/20 (CIBCe)	110			Replacement mill (net cap)
Interfor	U.S. South	2021	100			Debottlenecking
Canfor	U.S. South	2021	150			Debottlenecking
Interfor	U.S. South	2022	100			Debottlenecking
Canfor	Washington, GA	2022 (CIBCe)	275	130	\$473	Greenfield
		<b>Total:</b>	<b>4,230</b>			

Source: Company reports and CIBC World Markets Inc.



# B.C. Log Costs Expected To Remain Elevated In 2020

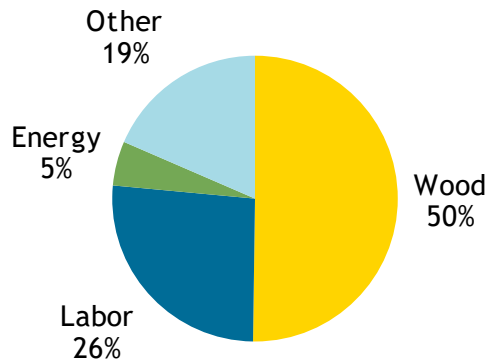


Source: Ministry of Forests, Lands and Natural Resource Operations, Alberta Agriculture and Forestry and CIBC World Markets Inc.

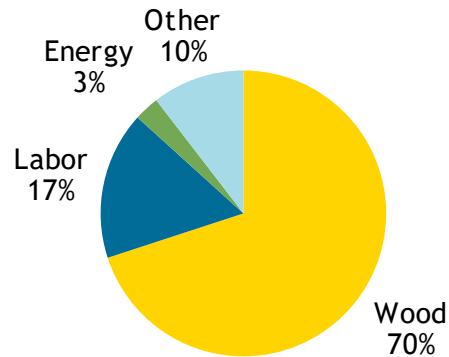


# Lumber: Variable Cost Breakdown (Before Fixed Costs Of \$35-\$45/mfbm)

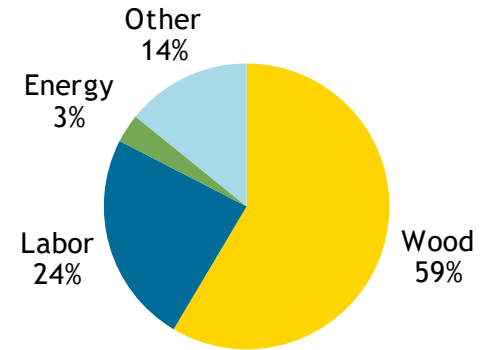
**U.S. South**  
US\$252/mfbm



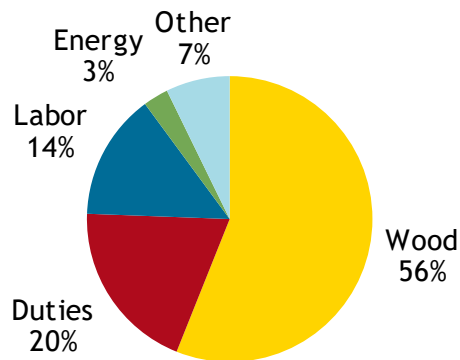
**U.S. West Coast**  
US\$309/mfbm



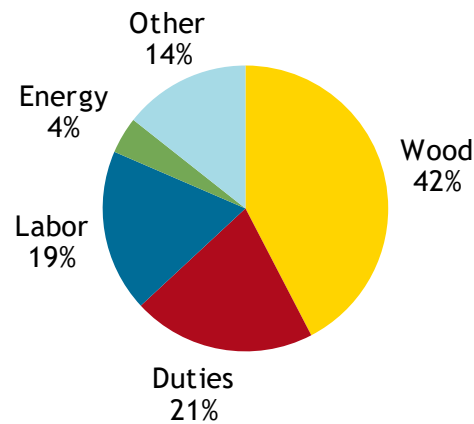
**U.S. West Inland**  
US\$313/mfbm



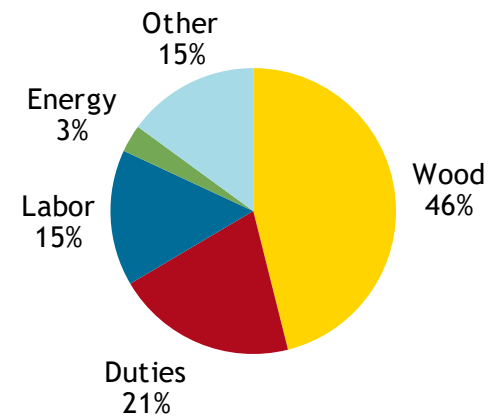
**B.C. Interior**  
US\$359/mfbm



**Ontario**  
US\$338/mfbm



**Quebec**  
US\$343/mfbm



Source: FEA and CIBC World Markets Inc.

# Softwood Lumber Trade File

- Stand-still on U.S. trade action expired on October 12, 2016. On November 25, 2016, the U.S. Lumber Coalition filed petitions with the U.S. Department of Commerce and the U.S. International Trade Commission (ITC).
- Preliminary CVDs (~20%) were announced on April 24, 2017, with ADDs (~7%) announced on June 23, 2017.
- The U.S. collected ~\$5.3 billion of duty deposits last time CVD/AD applied, approximately 81% (~\$4.3 billion) of which was returned to Canadian producers when the prior SLA was signed in 2006.

Assuming 100% Ownership of Mills in Production (Excl. Idled)

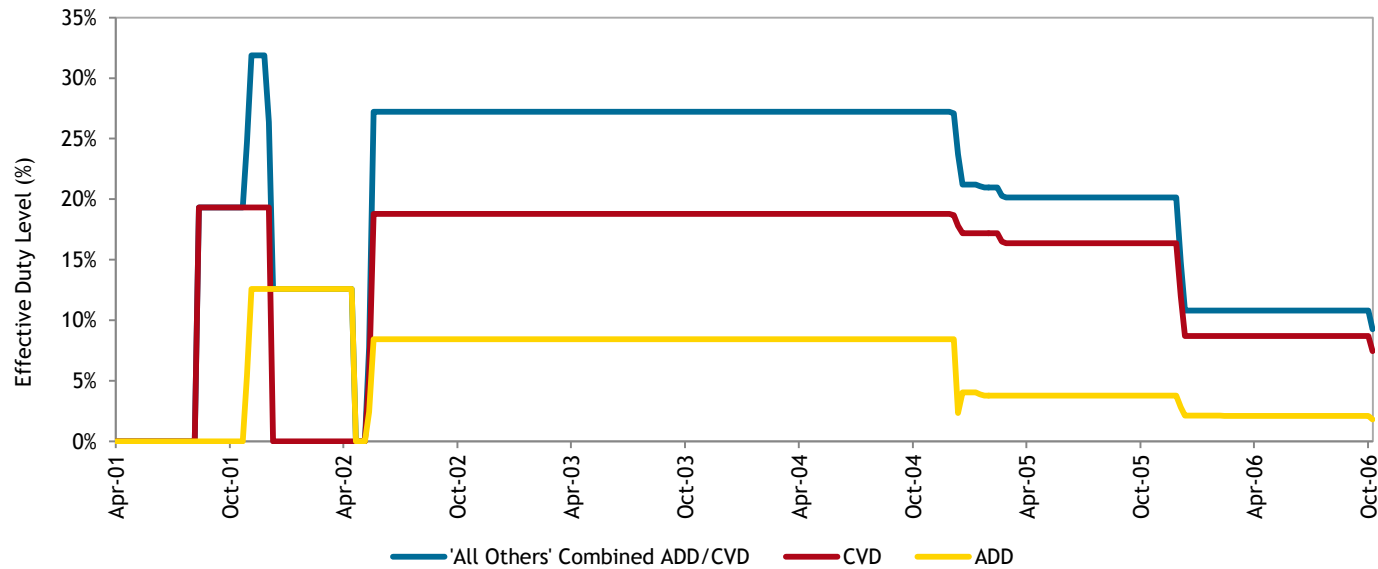
	BC Interior	BC Coast	Alberta	Central Canada	U.S. PNW	U.S. South	Canada	USA	Europe	Total
Canfor	50%		5%			29%	55%	29%	16%	100%
Conifex	100%						100%	0%		100%
Interfor	25%	6%			22%	47%	31%	69%		100%
Mercer									100%	100%
Resolute				75%		25%	75%	25%		100%
Rayonier AM				100%			100%	0%		100%
Western FP		93%			7%		93%	7%		100%
West Fraser	29%		25%			46%	54%	46%		100%
Weyerhaeuser	6%		12%		31%	51%	18%	82%		100%

Dispute	Trade Action Started	Trade Action Ended	Duration [Days]	Initial ADD/CVDs
I	Oct 7, 1982	May 31, 1983	236	0%
II	May 19, 1986	Dec 30, 1986	225	15%
III	Oct 31, 1991	Aug 16, 1994	1,020	14%
	Dec 31, 1994	May 29, 1996	515	25% threatened
IV	Apr 2, 2001	Oct 12, 2006	2,019	27%
V	Nov 25, 2016			27%

Source: Random Lengths, Federal Register, company reports, Wood Markets and CIBC World Markets Inc.



# SLA - How Duties Changed Over Time During Lumber IV



Duties Between The End Of the 1996 SLA And Start Of The 2006 SLA											
Effective Duties							Preliminary Duties (Never Imposed)				
Start Date	End Date	Days	ADD	CVD	Total	% As CVD	Start Date	End Date	ADD	CVD	Total
4/1/2001	8/16/2001	137	0.00%	0.00%	0.00%						
8/17/2001	11/5/2001	80		19.31%	19.31%	100%					
11/6/2001	12/14/2001	38	12.58%	19.31%	31.89%	61%					
12/15/2001	4/24/2002	130	12.58%	0.00%	12.58%	0%					
4/25/2002	5/21/2002	26	0.00%	0.00%	0.00%						
5/22/2002	12/9/2004	932	8.43%	18.79%	27.22%	69%	6/14/2004	12/9/2004	3.98%	9.24%	13.22%
12/10/2004	12/19/2004	9	8.43%	18.62%	27.05%	69%					
12/20/2004	1/23/2005	34	4.03%	17.18%	21.21%	81%					
1/24/2005	2/24/2005	31	3.78%	17.18%	20.96%	82%					
2/24/2005	12/11/2005	290	3.78%	16.37%	20.15%	81%					
12/12/2005	2/14/2006	64	2.11%	8.70%	10.81%	80%	6/7/2005	12/12/2005	2.44%	8.18%	10.62%
2/14/2006	10/12/2006	240	2.10%	8.70%	10.80%	81%	6/12/2006	10/12/2006	3.47%	11.23%	14.70%

Source: Random Lengths, Federal Register and CIBC World Markets Inc.



# Over C\$2.9 Billion Of Duties On Deposit

Estimated Lumber Duties On Deposit (As of Q3/19)



Estimated Lumber Duties On Deposit (C\$MM)

% Duties

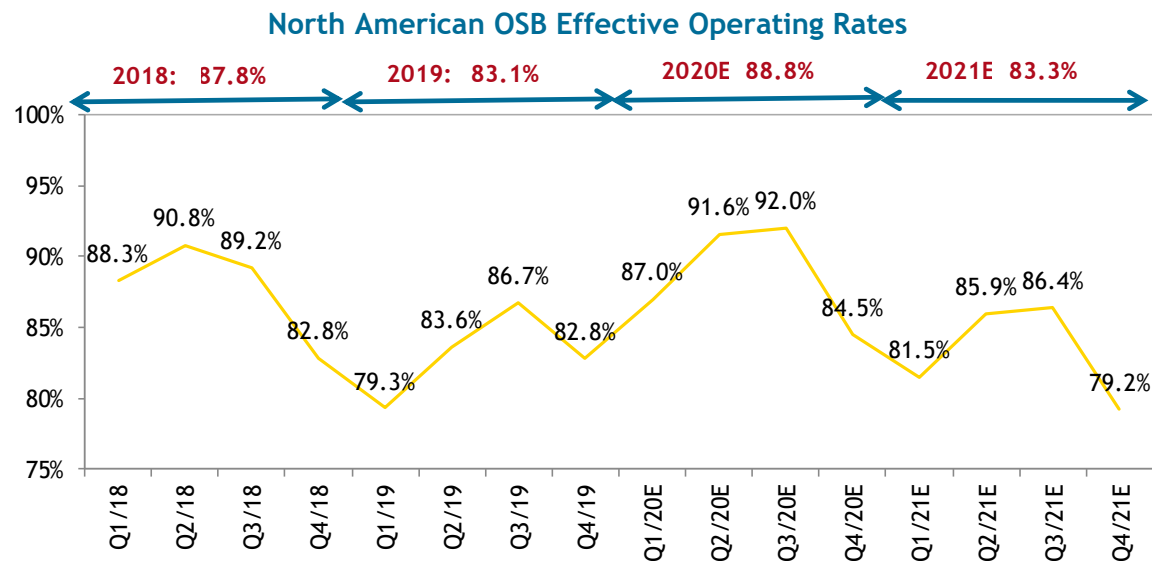
Other West Fraser Canfor Interfor Western FP Weyerhaeuser

Final Duties (2017)

	CVD	ADD	Total
Canfor	13.24%	7.28%	20.52%
West Fraser	17.99%	5.57%	23.56%
Tolko	14.85%	7.22%	22.07%
Resolute FP	14.70%	3.20%	17.90%
J.D. Irving	3.34%	6.04%	9.38%
<b>All Others</b>	<b>14.19%</b>	<b>6.04%</b>	<b>20.23%</b>

# CIBC's OSB Capacity Ramp-up Forecast

Mill Company	Mill	Capacity mmsf/yr	% Of 2016 Op. Capacity	Expected Start-Up
<b>SUPPLY</b>				
Base [Incl. Siding] (with creep of 0.5%/yr)				
1	Norbord Huguley, AL	500	2.0%	Q4/17
2	Tolko High Prairie, AB	675	2.7%	Q1/18
3	RoyOMartin Corrigan, TX	800	3.2%	Q2/18
4	Huber Spring City, TN	450	1.8%	Q2/18
5	Forex Amos, QC	450	1.8%	Q4/18
6	LP Fort St John (Peace Vall)	(800)	-3.2%	Q3/19
7	Norbord 100 Mile House, BC	(440)	-1.8%	Q3/19
8	Norbord Cordele, GA	(440)	-1.8%	Q3/19
9	Georgia-Pacific Allendale County, SC	(500)	-2.0%	Q4/19
10	Norbord Chambord, QC	550	2.2%	Q1/22
11	LP (Siding) Val d'Or, QC	225	0.9%	Q2/22
12	LP (Siding) Cook, MN	400	1.6%	Q2/23
<b>Total</b>			<b>7.5%</b>	



Source: Company reports, Wood Based Panels International and CIBC World Markets Inc.



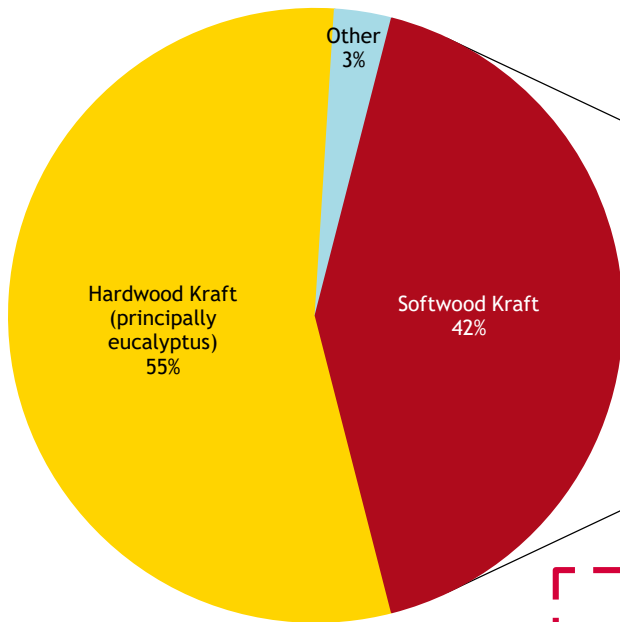


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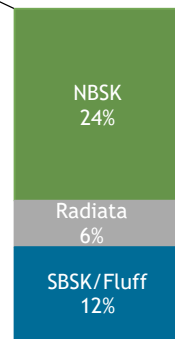
Pulp

# Pulp: Demand Breakdown

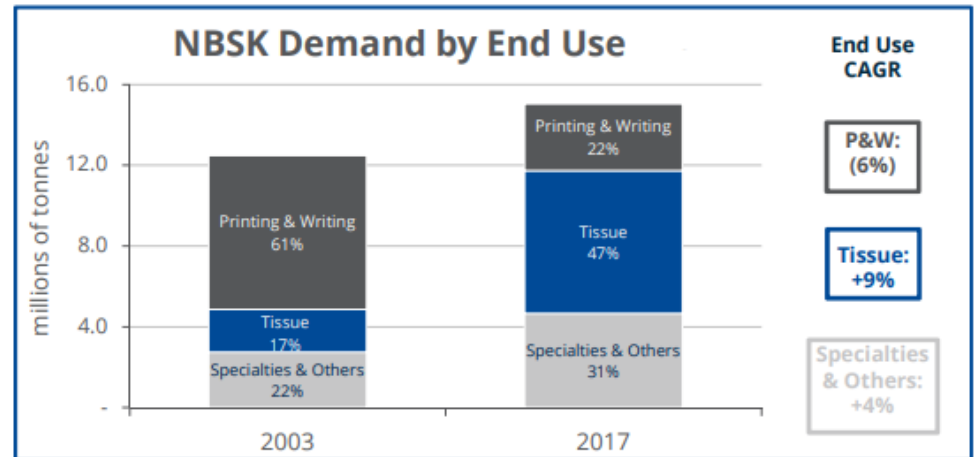
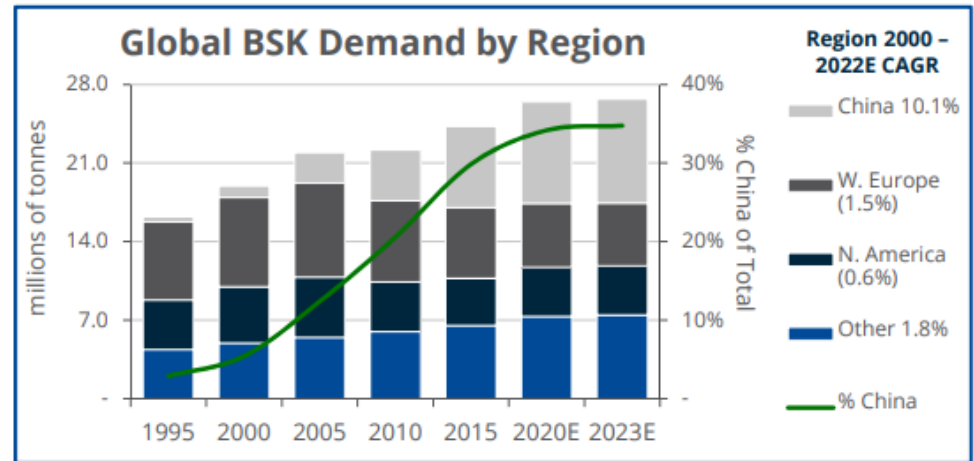
**Chemical Pulp Demand**  
(62 million tonnes)



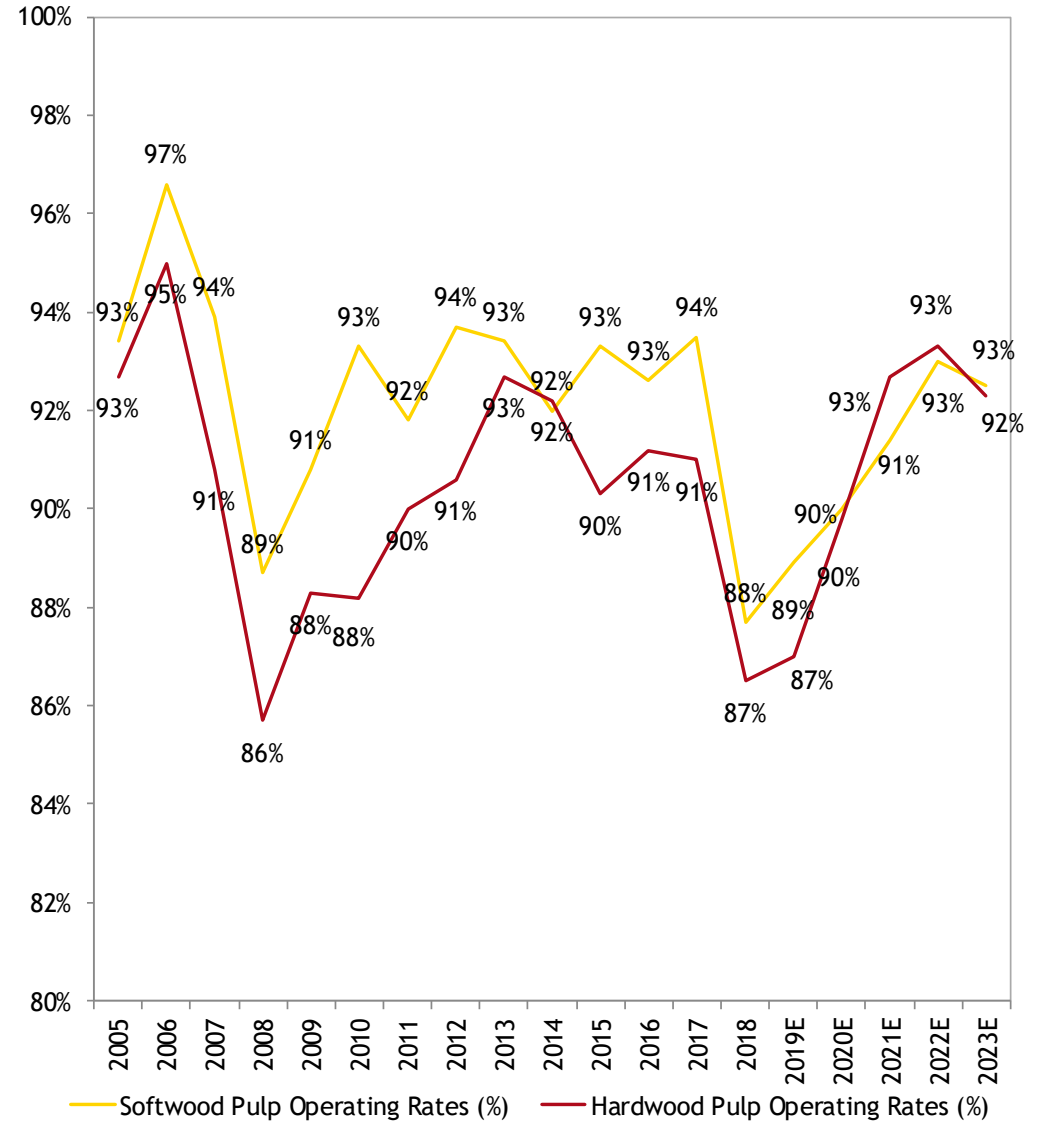
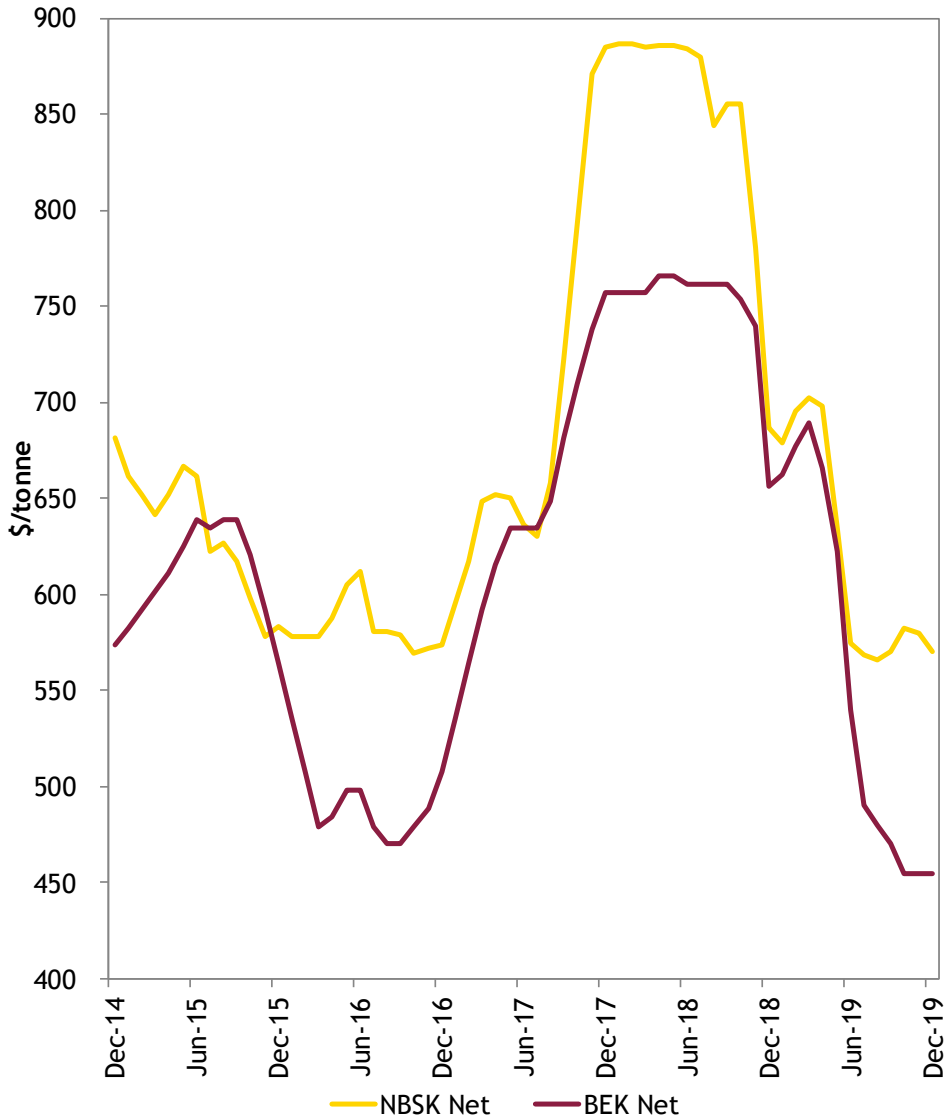
**Bleached Softwood Kraft Pulp Demand**  
(26 million tonnes)



**NBSK Demand**  
(~15 million tonnes)



# Pulp - Prices Expected To Remain Challenged In Q1 But Long-term Outlook Remains Solid

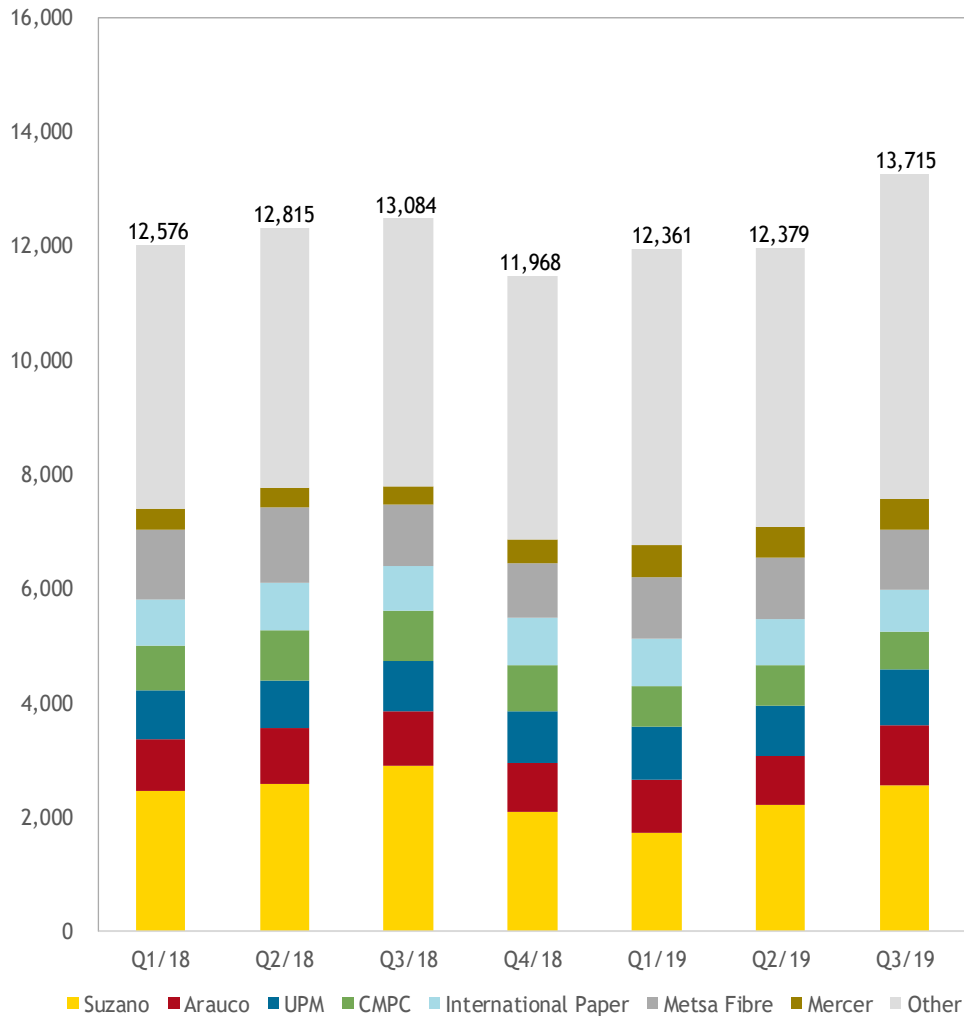


Source: Fastmarkets RISI, Brain McClay and CIBC World Markets Inc.

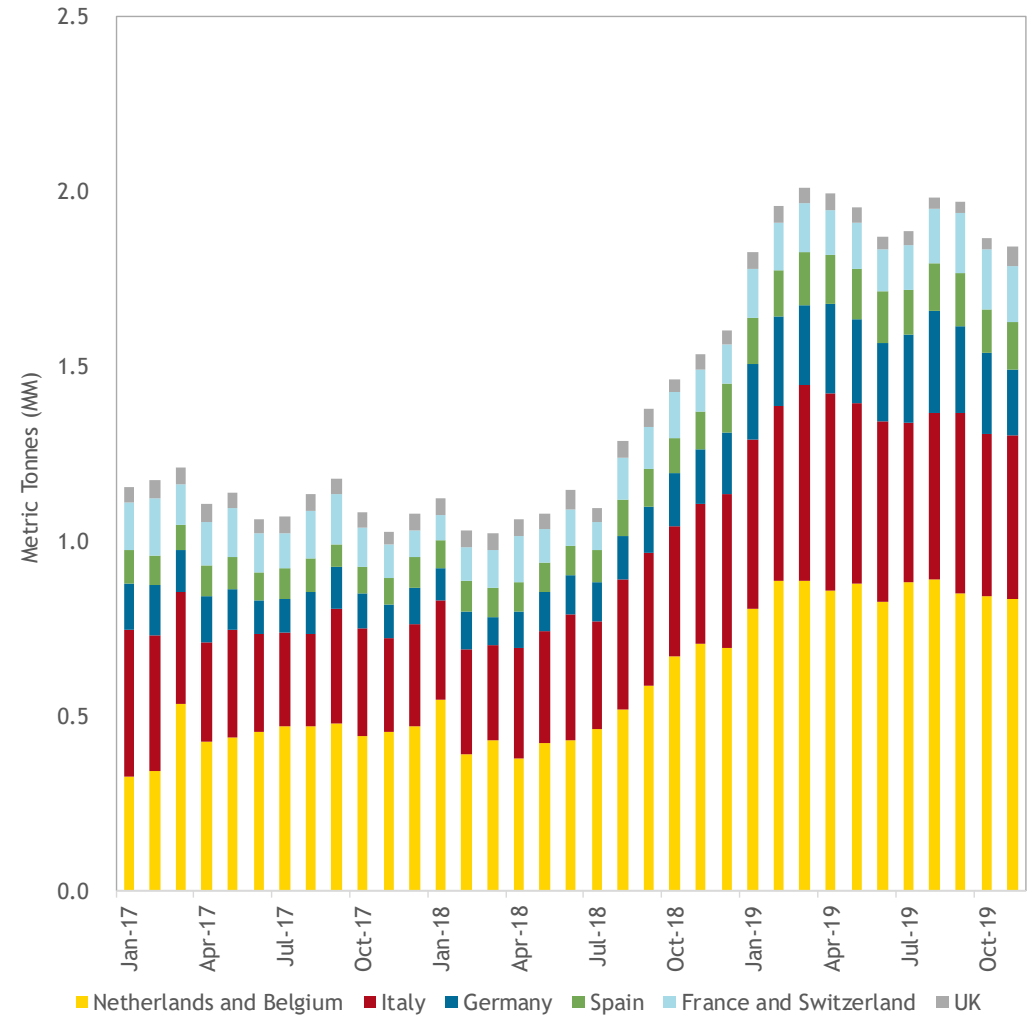


# Production By Major Producers Has Remained Robust Despite High Port Inventories

## Global World-20 Pulp Shipments By Producer (000 Tonnes)



## European Port Inventories



Source: Company reports, PPPC, Europulp and CIBC World Markets Inc.



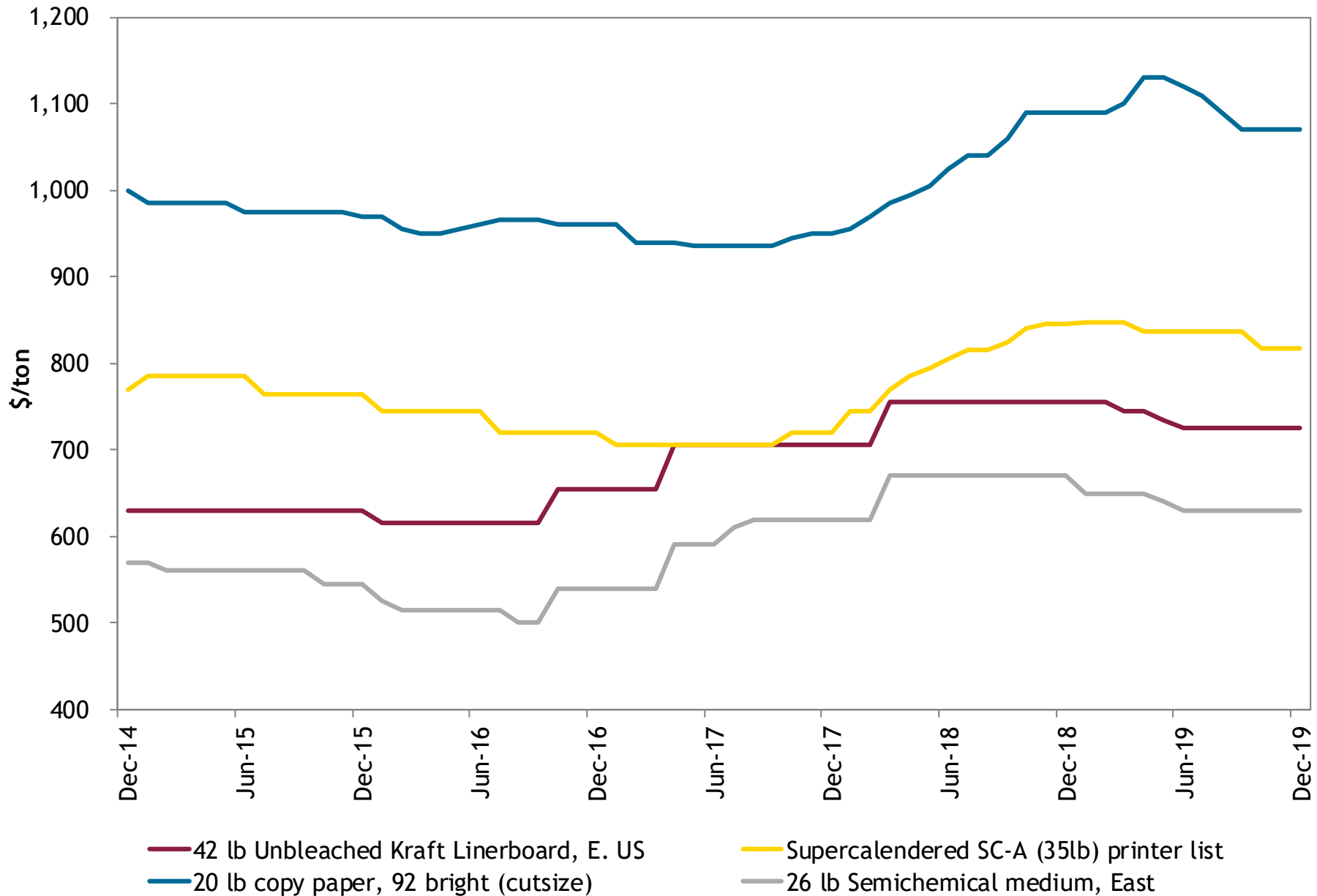


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# Paper



# Packaging And Paper Benchmark Prices



Source: Fastmarkets RISI.



## CIBC's North American Containerboard Supply/Demand Model

(MM tons)	2014	2015	2016	2017	2018	2019	2020E	2021E	2022E	2023E	2024E
Total Canada Demand	2.0	2.0	2.1	2.1	2.2	2.2	2.2	2.3	2.3	2.3	2.3
Total United States Demand	30.2	30.6	31.2	32.2	32.6	32.4	32.5	32.9	33.4	34.0	34.8
<b>Total North American Demand</b>	<b>32.2</b>	<b>32.6</b>	<b>33.4</b>	<b>34.3</b>	<b>34.7</b>	<b>34.6</b>	<b>34.8</b>	<b>35.1</b>	<b>35.7</b>	<b>36.3</b>	<b>37.2</b>
Incremental Annual North American Demand	0.6	0.4	0.7	0.9	0.4	(0.1)	0.2	0.4	0.5	0.7	0.8
Total Canada Demand Growth Rate	5.9%	3.1%	3.5%	1.6%	1.7%	1.6%	0.8%	1.4%	0.7%	0.9%	1.4%
Total United States Demand Growth Rate	1.6%	1.2%	2.1%	2.9%	1.3%	-0.5%	0.5%	1.0%	1.6%	1.9%	2.3%
Total North American Demand Growth Rate	1.9%	1.3%	2.2%	2.8%	1.3%	-0.4%	0.5%	1.1%	1.5%	1.9%	2.2%
Canada Capacity	2.2	2.3	2.3	2.5	2.7	2.8	2.8	2.8	2.8	2.9	2.9
United States Capacity	36.8	37.4	38.0	38.4	39.5	41.0	42.2	43.3	44.5	45.5	45.9
<b>North American Capacity</b>	<b>39.0</b>	<b>39.7</b>	<b>40.3</b>	<b>40.9</b>	<b>42.3</b>	<b>43.7</b>	<b>45.0</b>	<b>46.1</b>	<b>47.3</b>	<b>48.4</b>	<b>48.8</b>
Incremental Annual North American Capacity	0.6	0.6	0.6	0.6	1.3	1.5	1.2	1.1	1.2	1.0	0.4
North American Creep		1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	0.9%	0.9%
Canada Capacity Growth Rate	9.8%	1.0%	1.0%	9.7%	8.9%	1.0%	1.0%	1.0%	1.0%	0.9%	0.9%
United States Capacity Growth Rate	1.2%	1.6%	1.7%	1.1%	2.9%	3.6%	2.9%	2.6%	2.8%	2.2%	0.9%
North American Capacity Growth Rate	1.7%	1.6%	1.6%	1.6%	3.3%	3.5%	2.8%	2.5%	2.7%	2.2%	0.9%
Canada Op. Rate (Prod to Cap)	92.4%	95.1%	95.5%	93.6%	94.6%	95.0%	94.7%	94.8%	94.5%	94.3%	94.5%
United States Op. Rate (Prod to Cap)	96.1%	95.1%	95.4%	96.5%	94.5%	90.8%	88.5%	87.1%	85.8%	85.4%	86.3%
<b>North American Op. Rate (Prod to Cap)</b>	<b>95.9%</b>	<b>95.1%</b>	<b>95.4%</b>	<b>96.3%</b>	<b>94.5%</b>	<b>91.0%</b>	<b>88.9%</b>	<b>87.5%</b>	<b>86.4%</b>	<b>85.9%</b>	<b>86.8%</b>

Source: Company reports, Fastmarkets RISI and CIBC World Markets Inc.



## CIBC's North American Containerboard Supply/Demand Model

### Start-up/closure

Qtr	Yr	Company	City, State/Province	Country	Nameplate capacity (000 tpy)	Grade
Q1 / 2018		Midwest Paper (fka Appleton)	Combined Locks, WI	USA	350	recycled medium/liner
Q2 / 2018		PCA	Wallula, WA	USA	400	kraftliner
Q2 / 2018		Hood Container	St. Francisville, LA	USA	120	kraftliner
Q2 / 2018		PCA	DeRidder, LA	USA	150	kraftliner
Q3 / 2018		Norpac	Longview, WA	USA	90	recycled medium/liner
Q3 / 2018		Verso	Androscoggin, ME	USA	200	kraftliner
Q3 / 2018		International Paper	Maysville, KY	USA	150	recycled medium/liner
Year					<b>1,460</b>	
Q3 / 2019		ND Paper	Biron, WI	USA	255	recycled medium/liner
Q4 / 2019		Pratt	Wapakoneta, OH	USA	400	recycled medium/liner
Year					<b>655</b>	
Q1 / 2020		McKinley Paper (BioPappel)	Port Angeles, WA	USA	180	recycled medium/liner
Q1 / 2020		Verso	Duluth, MN	USA	48	recycled medium/liner/kraft paper
Q2 / 2020		International Paper	Selma, AL	USA	450	kraftliner
Q2 / 2020		WestRock	North Charleston, SC	USA	(288)	linerboard
H1 / 2020		WestRock	Florence, SC	USA	30	kraftliner (net)
Q4 / 2020		ND Paper	Rumford, ME	USA	120	white top linerboard
Q4 / 2020		New-Indy	Catawba, SC	USA	400	kraftliner
Year					<b>940</b>	
Q1 / 2021		Green Bay Packaging	Green Bay, WI	USA	445	recycled linerboard
Year					<b>445</b>	
H1 / 2022		Cascades	Bear Island, VA	USA	400	recycled medium/liner
TBA / 2022		Pratt (CIBCe)	California	USA	370	recycled medium/liner
TBA / 2022		Domtar (CIBCe)	Ashdown, AR	USA	400	kraftliner
Year					<b>1,170</b>	

Source: Company reports, Fastmarkets RISI and CIBC World Markets Inc.



# CIBC's North American Tissue Supply/Demand Model

(000 tons)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020E	2021E	2022E	2023E	2024E
North American Demand Growth Rate	2.1%	1.1%	1.5%	1.4%	1.3%	2.1%	1.9%	1.9%	1.8%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%
North American Capacity Growth Rate	0.6%	0.5%	-0.4%	2.2%	1.4%	0.1%	2.4%	2.5%	1.8%	2.3%	2.5%	2.2%	1.8%	1.3%	0.9%

North American Op. Rate (Prod to Cap)	93.0%	93.8%	95.4%	94.3%	94.0%	95.7%	95.0%	94.1%	94.2%	93.7%	93.0%	92.4%	92.3%	92.7%	93.4%
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North American Op. Rate (Demand to Cap)	95.9%	96.5%	98.3%	97.5%	97.3%	99.2%	98.8%	98.3%	98.2%	97.6%	96.7%	96.1%	96.0%	96.3%	97.0%
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## Additions / Removals

Timing	Company	Location	Country	Technology	Capacity (000 tpy)
Q2 / 2018	Georgia-Pacific	Augusta, GA	USA	CONV	(34)
Q2 / 2018	Sofidel	Circleville, OH	USA	NTT	77
Q4 / 2018	First Quality	Anderson, SC	USA	TAD	70
Q4 / 2018	Kimberly-Clark	Fullerton, CA	USA	CONV	(66)
Q4 / 2018	Sofidel	Circleville, OH	USA	NTT	77
Year					<u>124</u>
Q1 / 2019	Soundview Paper	Elmwood Park, NJ	USA	CONV	(70)
Q2 / 2019	Clearwater Paper	Shelby, NC	USA	NTT	70
Q3 / 2019	Cascades	Toronto, ON	Canada	CONV	(49)
Q3 / 2019	Georgia-Pacific	Crossett, AR	USA	CONV	(34)
H2 / 2019	Georgia-Pacific	Palatka, FL	USA	TAD	80
H2 / 2019	Irving Tissue	Macon, GA	USA	TAD	83
Q4 / 2019	Sofidel	Inola, OK	USA	TAD	80
Year					<u>161</u>
Q1 / 2020	Sofidel	Inola, OK	USA	TAD	80
Q1 / 2020	First Quality	Lock Haven, PA	USA	TAD	70
TBD / 2020	Georgia-Pacific	Naheola, AL	USA	CONV	30
Year					<u>180</u>
Q1 / 2021	Kruger Products	Sherbrooke, QC	Canada	TAD	77
H1 / 2021	Kimberly-Clark	Mobile, AL	USA	NTT	35
Year					<u>112</u>
Q1 / 2022	Irving Tissue	Macon, GA	USA	TAD	83
Year					<u>83</u>

Source: Company reports, Fastmarkets RISI and CIBC World Markets Inc.



# Paper & Forest Products Coverage Universe

- Our top picks heading into 2020 are Cascades and Canfor (both trading at substantial discounts to their closest peers). Our other Outperformer names include Canfor Pulp (trading well below Mercer), Hardwoods (room for the multiple gap vs. U.S. peers to narrow), Interfor (attractive U.S. South exposure) and Stella-Jones (expecting an M&A catalyst by early Q2/20).

Company	Ticker	Rating	Price 1/20/20	Price Target	Return to target	52 Week Low	52 Week High	Dividend Yield	Net Debt to Cap	Net Debt to EBITDA	Liquidity Last Qtr (\$MM)	Shares O/S (MM)	Mkt Cap (\$MM)	Enterprise Value (\$MM)	FCF '20E Yield	FCF '21E Yield	2020E EV/EBITDA	Mid-Cycle EV/EBITDA
Acadian Timber	ADN	NT	\$16.63	\$17.00	9%	\$15.52	\$17.97	7.0%	25%	4.2x	\$14	16.7	\$278	\$369	5.4%	5.4%	16.1x	16.8x
Canfor	CFP	OP	\$13.77	\$15.00	9%	\$8.55	\$18.92	0.0%	40%	13.5x	\$455	125.2	\$1,724	\$3,009	11.5%	12.1%	6.8x	5.7x
Canfor Pulp	CFX	OP	\$10.09	\$12.00	21%	\$7.36	\$19.80	2.5%	5%	0.3x	\$116	65.2	\$658	\$692	3.0%	15.8%	7.3x	4.3x
CanWel	CWX	NT	\$5.46	\$5.50	11%	\$4.24	\$5.71	10.3%	56%	5.2x	\$25	77.7	\$424	\$854	2.6%	10.3%	9.4x	9.5x
Cascades	CAS	OP	\$11.93	\$14.00	20%	\$7.55	\$13.44	2.7%	57%	3.7x	\$475	95.5	\$1,140	\$3,309	13.1%	13.8%	5.5x	5.5x
Conifex	CFF		\$0.76															
Domtar (US\$)	UFS	NT	\$39.87	\$41.00	7%	\$31.72	\$53.89	4.6%	26%	1.2x	\$755	61.7	\$2,460	\$3,302	9.9%	12.6%	6.2x	6.0x
Hardwoods	HDI	OP	\$17.19	\$19.00	13%	\$10.78	\$17.16	2.0%	23%	1.1x	\$61	21.5	\$370	\$500	3.7%	5.9%	5.8x	5.6x
Interfor	IFP	OP	\$15.59	\$17.00	9%	\$10.91	\$18.42	0.0%	22%	4.8x	\$381	67.3	\$1,049	\$1,299	0.8%	-1.2%	6.7x	6.2x
KP Tissue	KPT	NT	\$9.89	\$10.00	8%	\$7.73	\$10.10	7.3%	69%	5.2x	\$154	62.2	\$615	\$1,255	-49.1%	6.2%	7.5x	5.6x
Mercer (US\$)	MERC	NT	\$13.25	\$12.00	-5%	\$10.12	\$17.74	4.2%	55%	2.0x	\$544	66.0	\$874	\$1,593	4.5%	10.6%	7.4x	5.1x
Norbord (C\$/US\$)	OSB	NT	\$39.92	\$38.00	-3%	\$26.31	\$40.32	2.0%	49%	3.8x	\$286	81.7	\$3,261	US\$3,177	7.8%	6.8%	7.6x	6.3x
Resolute (US\$)	RFP		\$4.49															
Richelieu	RCH	NT	\$28.70	\$30.00	5%	\$20.03	\$28.99	0.9%	0%	0.0x	\$73	57.2	\$1,641	\$1,633	4.1%	4.5%	14.5x	13.2x
Stella-Jones	SJ	OP	\$38.76	\$47.00	23%	\$36.00	\$48.28	1.4%	34%	2.3x	\$210	68.9	\$2,671	\$3,355	4.7%	5.7%	10.0x	9.3x
West Fraser	WFT	NT	\$61.01	\$56.00	-7%	\$43.93	\$80.13	1.3%	27%	5.7x	\$580	68.8	\$4,200	\$5,171	3.0%	3.0%	8.3x	7.5x
Western FP	WEF	NT	\$1.23	\$1.25	9%	\$1.13	\$2.20	7.3%	20%	3.7x	\$141	376.5	\$463	\$593	-4.9%	-2.4%	11.9x	5.9x

OP - Outperformer; NT - Neutral; UN - Underperformer.

1) Norbord share price and dividend in CAD, all other financial data in USD.

2) Canfor's EV/EBITDA multiple adjusted for the company's 54.8% interest in Canfor Pulp.

\*All commodity prices in this presentation are shown in U.S. dollars (unless stated otherwise).

Source: Company reports, FactSet and CIBC World Markets Inc.





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Questions?

# Commodity Deck

Commodity	Grade	Unit (US\$)	Latest	Forecast														CIBCe	15 Yr
			21-Jan	2015	2016	2017	2018	2019	Q1/20E	Q2/20E	Q3/20E	Q4/20E	2020E	2021E	2022E	2023E	2024E	Mid-Cycle	Nom. Avg
US Housing	Single-Family starts (SAAR)	000	1,055	713	785	852	873	879	961	961	961	961	961	919	913	938	967	1,022	806
	Multi-Family starts (SAAR)	000	553	394	392	358	376	388	374	374	374	374	374	341	338	347	358	378	300
	Total starts (SAAR)	000	1,608	1,107	1,177	1,210	1,249	1,267	1,335	1,335	1,335	1,335	1,335	1,260	1,250	1,285	1,325	1,400	1,107
	Proportion of Single-Family starts	%	66%	64%	67%	70%	70%	69%	72%	72%	72%	72%	72%	73%	73%	73%	73%	73%	72%
FX	CADUSD		0.77	0.78	0.76	0.77	0.77	0.75	0.76	0.75	0.75	0.74	0.75	0.72	0.71	0.71	0.71	0.80	0.88
	USDCAD		1.31	1.28	1.33	1.30	1.30	1.33	1.32	1.33	1.33	1.35	1.33	1.39	1.41	1.41	1.41	1.25	1.15
	EURUSD		1.11	1.11	1.11	1.13	1.18	1.12	1.12	1.14	1.15	1.16	1.14	1.17	1.14	1.14	1.14	1.25	1.27
	USDEUR		0.90	0.90	0.90	0.89	0.85	0.89	0.89	0.88	0.87	0.86	0.88	0.85	0.88	0.88	0.88	0.80	0.80
Lumber	Random Lengths Composite	\$/mfbm	379	330	345	413	459	356	397	397	417	382	398	363	358	378	392	369	334
	W. SPF #2&Btr 2x4	\$/mfbm	393	277	305	401	480	359	425	415	430	390	415	370	365	385	400	375	309
	W. SPF #3/Utility 2x4	\$/mfbm	274	208	240	323	372	284	305	305	330	300	310	290	290	310	325	300	248
	SYP 2x4 West	\$/mfbm	391	376	408	432	501	383	410	415	440	405	418	385	380	400	415	390	363
	SYP 2x4 Central	\$/mfbm	375	372	408	427	493	379	405	410	435	400	413	380	375	395	410	385	358
	SYP 2x4 East	\$/mfbm	392	382	425	454	525	406	420	425	450	415	428	395	390	410	420	395	368
	E.SPF #1&2 2x4 GL (Delivered)	\$/mfbm	469	377	399	486	565	441	501	501	528	483	503	459	453	477	495	466	395
	Coast Hem-Fir Studs	\$/mfbm	380	305	335	391	458	344	375	375	396	361	377	342	337	356	370	348	368
WRC Green Deck Architect Knotty 2x6	\$/mfbm	1,340	1,180	1,213	1,484	1,493	1,347	1,340	1,340	1,340	1,340	1,340	1,340	1,345	1,350	1,360	1,360	1,149	
Panels	OSB North Central (7/16")	\$/msf	225	208	269	354	350	209	250	290	295	265	275	245	240	260	270	290	242
	OSB South East (7/16")	\$/msf	198	187	245	331	314	187	225	265	270	240	250	215	210	235	250	275	222
	OSB Western Canada (7/16")	\$/msf	177	169	233	327	306	166	205	250	260	230	236	210	210	235	250	275	219
	Plywood Toronto (3/8") [delivered]	C\$/msf	409	429	428	507	548	459	450	495	505	470	480	470	470	480	505	515	401
	Plywood Toronto (3/8") [delivered]	\$/msf	313	336	324	393	423	346	342	371	379	348	360	338	334	341	359	412	347
	MDF West (3/4")	\$/msf	605	615	615	621	625	624	615	615	615	615	615	620	620	620	620	620	549
Pulp	NBSK Net (China)	\$/tonne	570	630	583	696	851	623	590	630	650	690	640	710	800	675	685	700	675
	BEK Net (China)	\$/tonne	455	612	492	645	750	564	465	505	525	565	515	590	700	575	585	590	604
	NBHK Spot (North America)	\$/tonne	490	591	515	601	746	596	500	540	560	600	550	630	740	620	630	635	597
	BCTMP Hardwood Net (China)	\$/tonne	465	429	451	582	637	480	455	480	500	530	491	550	630	505	515	520	536
Packaging	Unbleached Kraft Linerboard, E. US (42 lb)	\$/ton	715	630	625	693	747	734	725	715	705	700	711	690	700	715	720	700	572
	Semichemical medium, East (26 lb)	\$/ton	615	557	520	592	662	638	630	620	610	605	616	595	605	620	625	600	516
Wastepaper	Old Corrugated Containers (OCC)	\$/ton	24	81	92	138	76	35	25	38	42	45	38	45	50	55	55	60	99
	Sorted Office Papers (SOP)	\$/ton	86	144	141	159	188	129	90	100	100	100	98	115	125	135	140	155	155
UGW	Supercalendered SC-A (35lb) printer list	\$/ton	818	775	733	709	803	835	815	810	810	810	811	810	825	805	800	780	799
CGW	No. 5 40 lb Offset Rolls LWC	\$/ton	835	795	735	739	827	857	835	830	830	830	831	830	845	825	820	800	823
UFS	20 lb copy paper, 92 bright (cutsizes)	\$/ton	1,070	979	960	942	1,029	1,095	1,070	1,070	1,070	1,070	1,070	1,090	1,095	1,075	1,070	1,050	993
	50 lb offset rolls, 92 bright	\$/ton	980	869	873	835	923	994	980	980	980	980	980	995	1,000	980	975	950	870
Newsprint	Newsprint 45-g (27.7-lb) East	\$/tonne	691	575	598	623	740	732	685	680	680	680	681	680	690	675	670	675	662

Source: Random Lengths, Fastmarkets RISI, IndustryIntel, Brian McClay & Associates, Bloomberg, FEA and CIBC World Markets Inc.



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## CIBC World Markets Inc. Price Chart

For price and performance charts, please visit CIBC on the web at <https://researchcentral.cibcwm.com/rcportal/pricecharts> or write to CIBC World Markets Inc., 161 Bay Street, 4th Floor, Toronto, ON M5H 2S8, Attn: Research Disclosure Chart Request.



# CIBC World Markets Inc. Stock Rating System

Rating	Abbreviation	Description
<b>Stock Ratings</b>		
Outperformer	OP	Stock is expected to outperform similar stocks in the coverage universe during the next 12-18 months.
Neutral	NT	Stock is expected to perform in line with similar stocks in the coverage universe during the next 12-18 months.
Underperformer	UN	Stock is expected to underperform similar stocks in the coverage universe during the next 12-18 months.
Not Rated	NR	CIBC World Markets does not maintain an investment recommendation on the stock.
Restricted	R	CIBC World Markets is restricted (due to potential conflict of interest) from rating the stock.

<b>Sector Ratings (note: Broader market averages refer to S&amp;P 500 in the U.S. and S&amp;P/TSX Composite in Canada.)</b>		
Overweight	O	Sector is expected to outperform the broader market averages.
Maketweight	M	Sector is expected to equal the performance of the broader market averages.
Underweight	U	Sector is expected to underperform the broader market averages.
None	NA	Sector rating is not applicable.

"Speculative" indicates that an investment in this security involves a high amount of risk due to volatility and / or liquidity issues.

For Stock Ratings prior to December 09, 2016 click here: [CIBC Stock Rating System](#)

Ratings Distribution\*: CIBC World Markets Inc. Coverage Universe

(as of 21 Jan 2020)	Count	Percent	Inv. Banking Relationships	Count	Percent
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Neutral	159	47.2%	Neutral	155	97.5%
Underperformer	10	3.0%	Underperformer	10	100.0%
Restricted	4	1.2%	Restricted	4	100.0%

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