



**Westlake  
Chemical**



# Westlake Chemical Corporation

Citi 2021 Basic Materials Virtual Conference

Third Quarter 2021

# Westlake Chemical Corporation

A Leading Integrated Chemicals and Building Materials Company



**Net Sales**

**\$10,236 Million**

**EBITDA** <sup>(1,2)</sup>

**\$2,949 Million**

**Net Income** <sup>(3)</sup>

**\$1,484 Million**

(TTM 3Q 2021)



**Our mission is to create long term value with a risk adjusted return approach.**

**Vinyls** (TTM 3Q 2021)

**\$2,083 million EBITDA**<sup>(1)</sup>

70% of total EBITDA<sup>(4)</sup>

**Olefins** (TTM 3Q 2021)

**\$908 million EBITDA**<sup>(1)</sup>

30% of total EBITDA<sup>(4)</sup>

## Our Mission:

- Profitable bottom line growth.
- In businesses we understand.
- Globally in areas we can gain an edge.
- In a disciplined and opportunistic manner.

## Strategic Action Update:

- Disciplined, financially conservative strategy:
  - Pending \$1.2B acquisition of Hexion's epoxy business.
  - Strategic acquisition of Boral's North American building products division, LASCO pipe fittings and Dimex.
  - Increased Ethylene JV ownership to expand integrated vinyls margins.
  - Recent global PVC, VCM & Chlor Alkali expansions increase integration.
- Strong balance sheet with focus on costs and cash generation.



Notes: (1) See page 23, (2) Includes WLK Corporate EBITDA, (3) Net Income attributable to WLK, (4) Excludes WLK corporate EBITDA

# Westlake's Pending Acquisition of Hexion Epoxy Adds A New Growth Platform With Sustainable Applications

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- Epoxies expand Westlake's integrated materials business into attractive global high-growth, innovative, and sustainably oriented end-use products including: wind turbine blades, EV automotive light weighting, aerospace and consumer coating applications.
- Hexion epoxy is a global leader with strong positions across all key applications
  - Highly innovative with majority of business in specialty areas of epoxy
  - Leading positions: #1 in wind energy globally, #2 in aviation in Europe, and #2 in automotive In North America.
  - Significant global scale with 8 manufacturing sites and 5 R&D labs across 3 continents with 330 patents and TTM Revenue of \$1.5 billion<sup>(1)</sup>.
- The acquisition of Hexion's epoxy business enhances Westlake's chloralkali and olefins vertical integration strategy bringing attractive growth and synergy opportunities.
- \$1.2 Billion purchase price, subject to customary adjustments, expected to be fully funded with existing cash on hand.
- Transaction expected to close in the first half of 2022.
- Transaction expected to be accretive in the first year of combined operations.

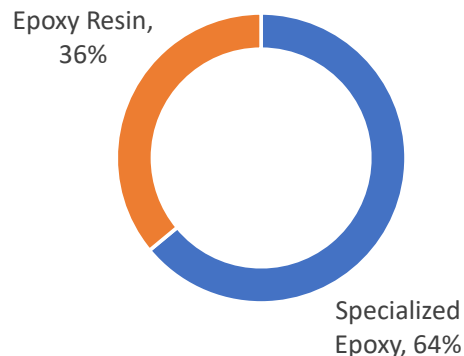


(1) TTM: trailing twelve months as of Sept 30, 2021

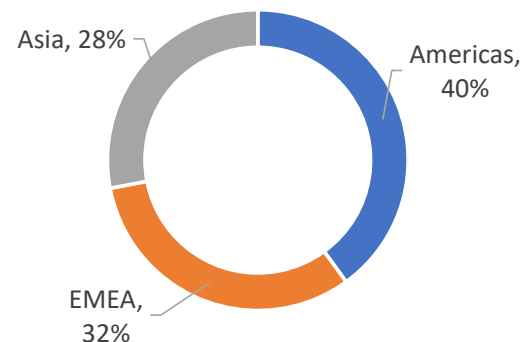
# Hexion Epoxy Overview

- Global integrated manufacturing footprint from epoxy raw materials through customized specialty products in attractively growing end products and international markets.
- Utilizes differentiated technology driven by a focus on R&D and new product development with a growing focus on ESG and sustainability oriented products.
- Leading specialty resins, coatings and composites positions with global diversification and attractive applications.
  - Downstream specialized epoxy business represents majority of revenue with superior process technology and product innovation and leading positions in wind energy and light weighting for aviation and automotive.
  - Upstream epoxy resin business fully integrated with leading positions in liquid epoxy resins and BPA.

Sales by Product



Sales by Geography



# Westlake, A Global Diversified Product Mix

## A Global Leading Producer:

### Chlor Alkali

2nd largest Chlor Alkali producer in the world, capitalizes on globally low cost natural gas for power in North America.

### PVC

2nd largest producer of PVC in the world leveraging the high level of product integration and long-term low cost feedstocks.

### Low Density Polyethylene

A global leader in specialty autoclave LDPE, 2nd largest producer of Low Density Polyethylene in the Americas.

### Building Products

A North American leader with a robust nation wide footprint.

### Epoxy<sup>(1)</sup>

Global leader in specialty Epoxy for wind (#1), aero (#2), and automotive (#2). Global leader (#2) in epoxy resin

## World Wide Presence:

### North America

Highly integrated, low cost production of PE, PVC, caustic soda and epoxy:

- 11 Chemical sites.
- 20+ Polymer product sites.
- 1 Epoxy R&D site
- 3 Epoxy Manufacturing sites

### Europe

A global leader in specialty PVC, epoxy, and a leading global PVC compounder:

- 5 Chemical sites.
- Downstream value added polymer compound products.
- 3 Epoxy R&D sites
- 4 Epoxy Manufacturing sites

### Asia

High quality epoxy, PVC resin and film products in a growth region:

- 2 Chemical sites.
- 3 Polymer product sites.
- 1 Epoxy R&D site
- 1 Epoxy Manufacturing site

1. Pending close of Hexion epoxy acquisition

# Advancing Sustainability

## Protecting the Environment

Westlake has numerous programs designed to promote safe, ethical, environmentally and socially responsible practices including: a worldwide recycling program, operating in an energy efficient manner and reducing water usage and emissions. As discussed in our 2020 sustainability report, Westlake has reduced greenhouse gas emissions by 8.73% despite an increase in production of 4.84% from 2016 to 2020.



## Developing Green Products

Westlake offers certified climate-friendly caustic soda utilizing renewable energy Guarantees of Origin (GOs). The CO<sub>2</sub> footprint of this low-carbon caustic soda introduced to the European market under the brand name **GreenVin** is reduced by more than 30% compared to conventional caustic soda. Westlake offers **PVC Oriented Pipe** delivering PVC pipe that uses less material while delivering the enhanced strength and capabilities of current PVC pipes. Through the acquisition of Dimex, one of the largest processors of post-industrial recycled plastic material in the United States, Westlake expands product portfolio to include a variety of consumer products. We are continuing to develop products that are in line with our sustainability goals while meeting the need for greener products.

## Participating in Multi-Industry Associations for Environmental Protection

Westlake is a proud partner with the following organizations to drive sustainable action to eliminate plastic waste, capture more flexible food packaging waste for recycling and support vinyls' sustainable impact in the world, along with many other initiatives.



# Westlake Makes Essential Products To Protect and Enhance Our Daily Lives

Westlake's products support over half of the 17 Sustainable Development Goals adopted by the United Nations:



Westlake's products are used for many essential goods that are particularly important in today's environment:

## Chlor Alkali

Used in water treatment, disinfectants, paper, tissues and cardboard packaging.

## PVC

Used in medical equipment and supplies as well as a variety of construction and infrastructure uses, such as fresh and waste water piping.

## Building Products

Used for more affordable and energy efficient housing .

## Low Density Polyethylene

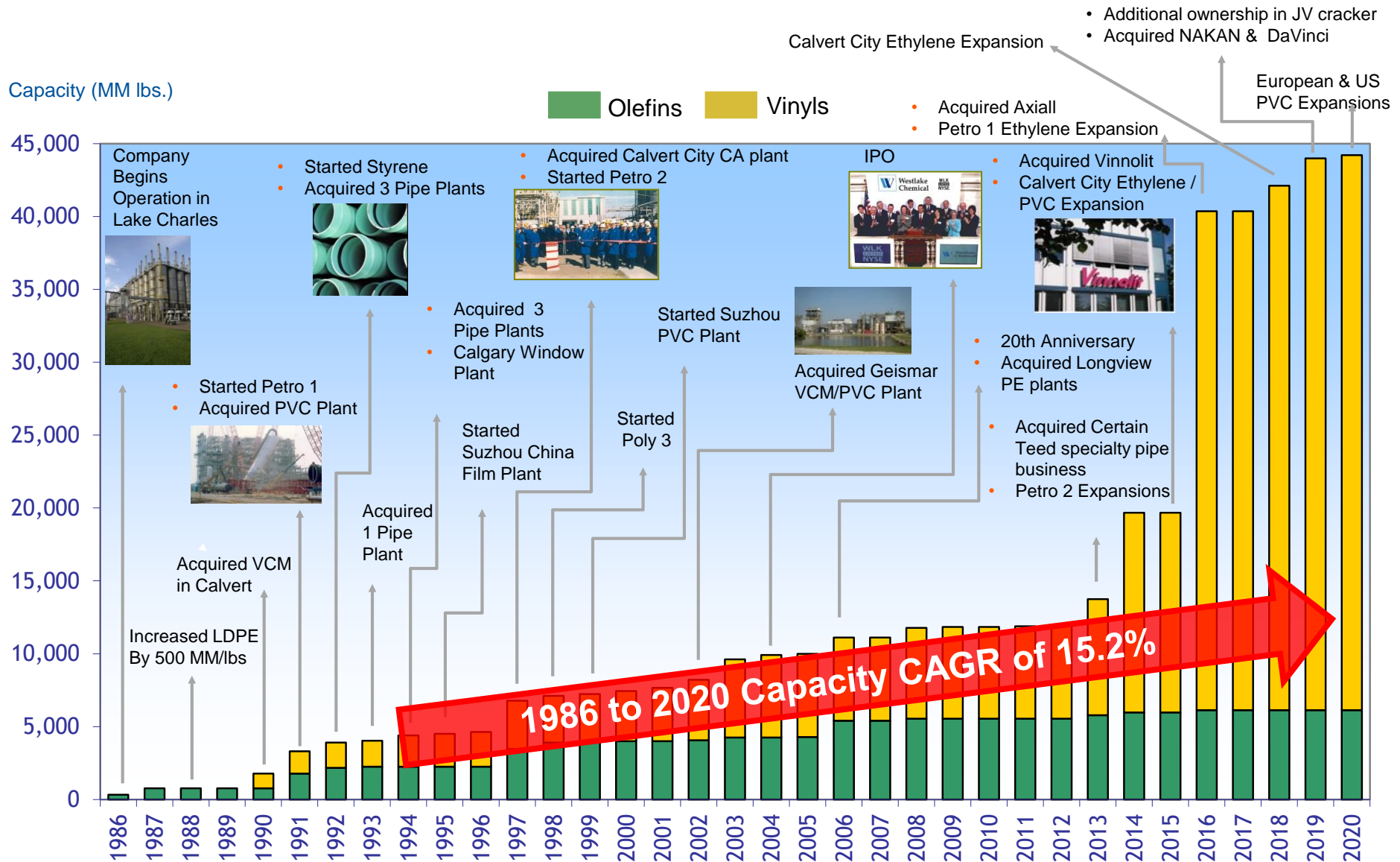
Used for medical applications and food packaging.

## Epoxy<sup>(1)</sup>

Used for wind power, light weighting of planes and cars, and other high performance composites.

1. Pending close of Hexion epoxy acquisition

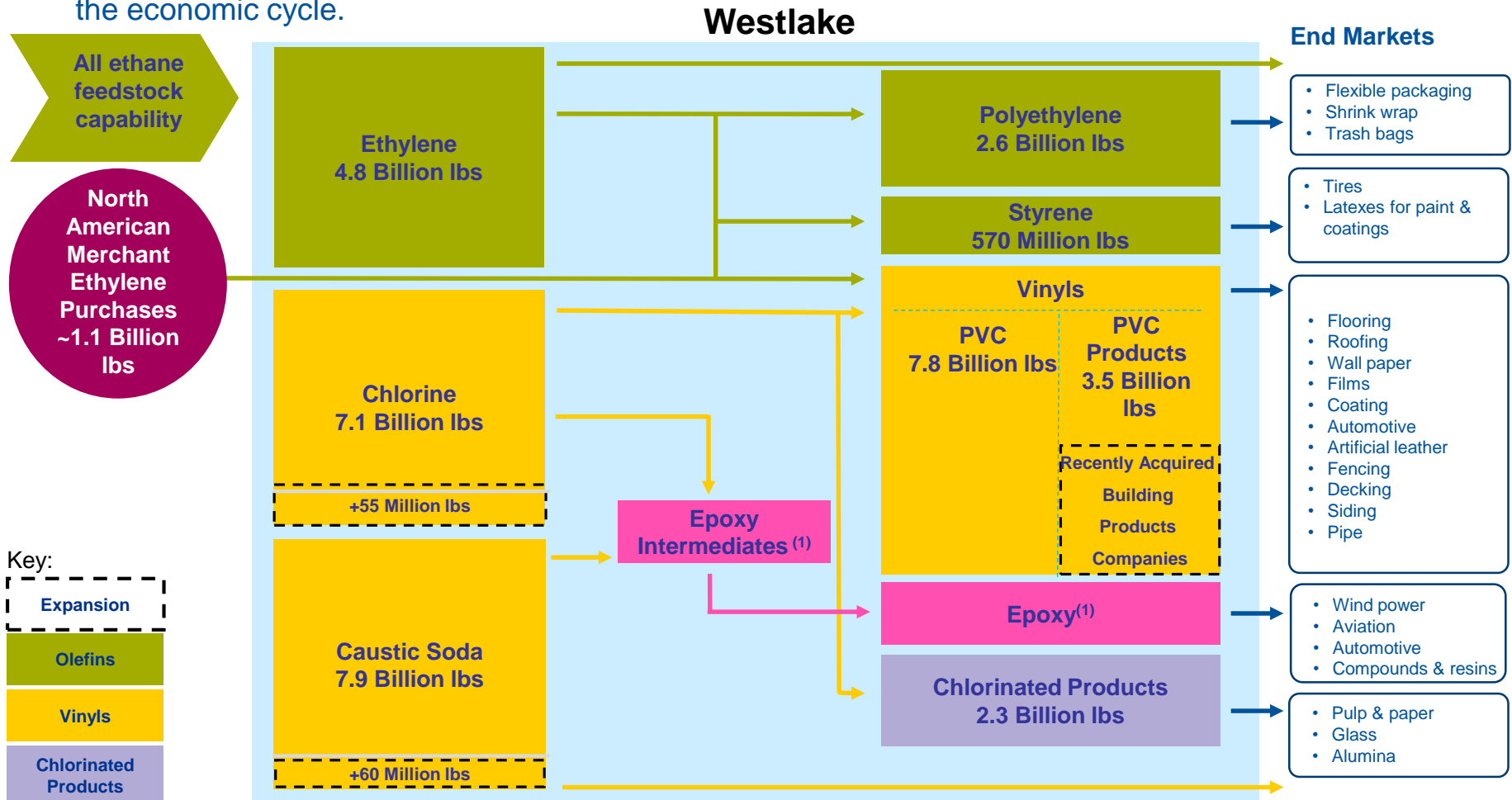
# Strategic Growth Diversifies Product Lines and Further Strengthens Integration Advantage



# Globally Advantaged Cost Position With A Very High Degree of Product Integration

**Westlake Chemical has a long-term strategic cost advantage:**

- North America has a long-term cost advantaged position through abundant supply of Ethane from shale, electricity from natural gas and ample salt compared to global markets.
- Integration from feedstock to final product captures margin across the production chain and throughout the economic cycle.



1. Pending close of Hexion epoxy acquisition

# Highlights to Westlake's Recently Completed 2021 Building Products Acquisitions

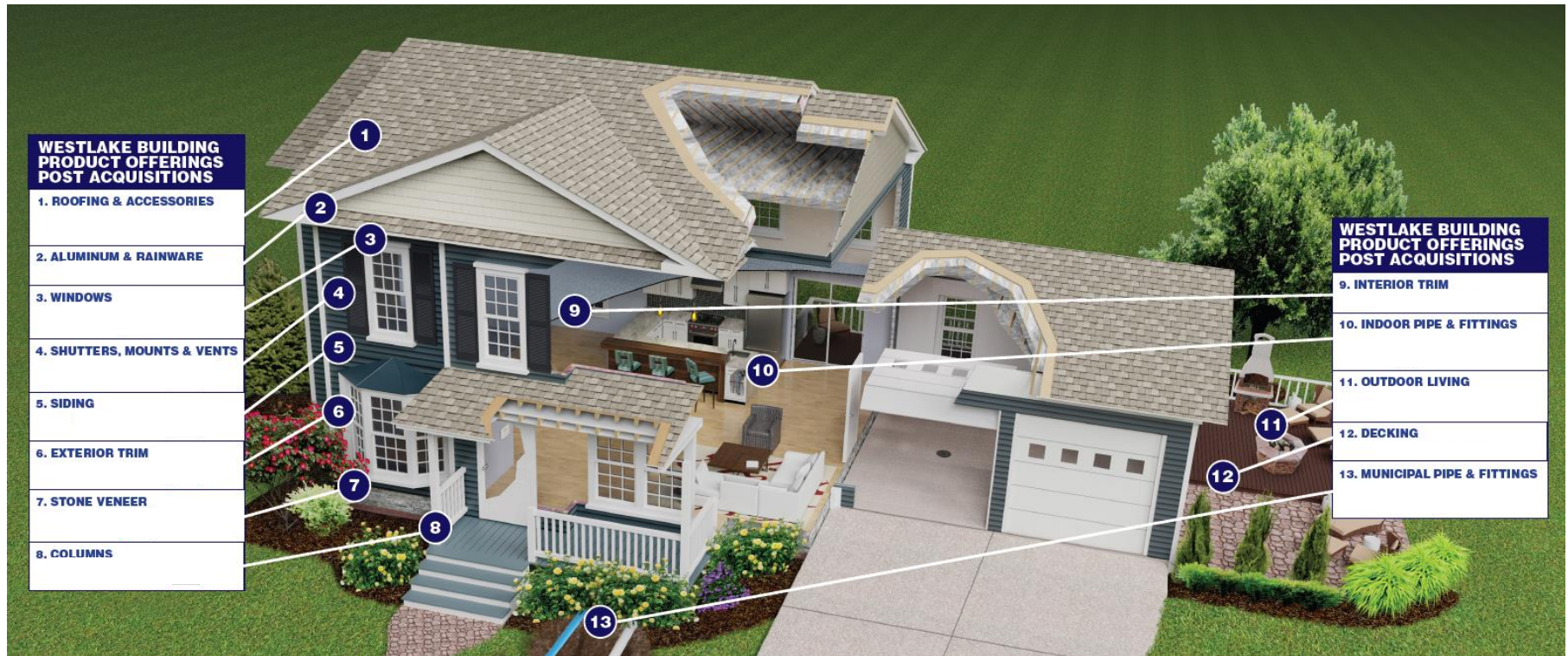
Boral, LASCO and Dimex's market leading brands expands Westlake's portfolio of innovative products that deliver low maintenance and environmentally friendly sustainable products driving customer satisfaction. This portfolio of products:

- Significantly enhances scale and diversification of Westlake's leading building products.
- Further enhances Westlake's position in the attractive and growing North American housing market.
- Creates additional value by capturing cost and revenue synergies from enhanced cross-selling opportunities.
- Builds on Westlake's history of growth and successful acquisition integration.
- Expands Westlake further into environmentally conscious markets and products.

**Note:**  
LASCO closed August 19, 2021  
Dimex closed Sep 10, 2021  
Boral closed Oct 1, 2021



# Extensive Building Products Offerings



Westlake's recent building products acquisitions create leading market positions in the housing and repair & modeling markets which drives enhanced customer satisfaction and expands our building products offerings.



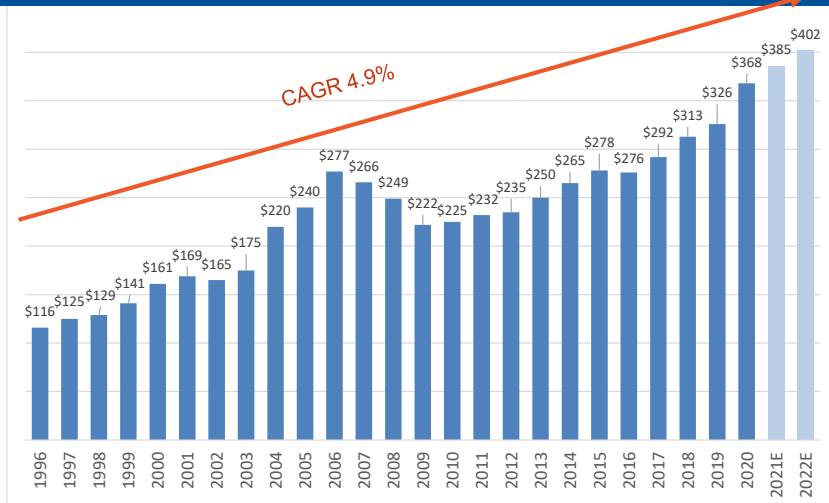
# Secular and Structural Strength in Housing Supports Attractive Opportunities in PVC and Building Products Growth

Secular trends to drive U.S. housing demand growth, which will benefit Westlake's Building Products and PVC businesses:

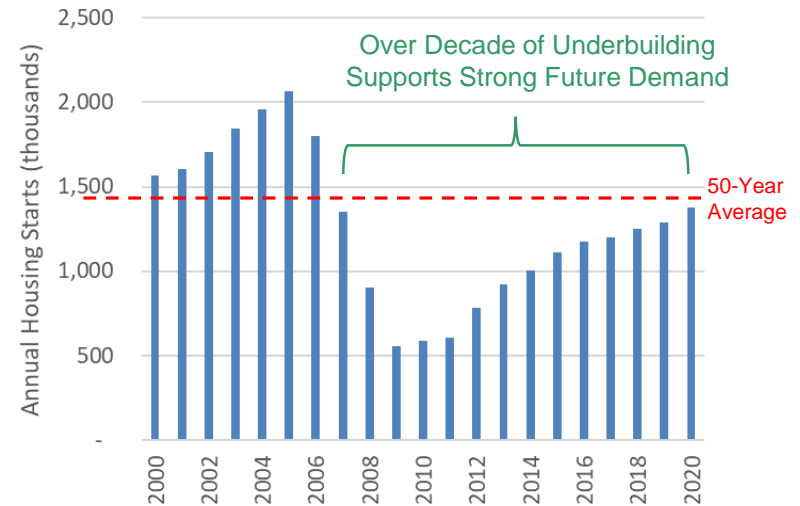
- Favorable demographics with increasing number of U.S. population to be in peak household formation years.
- Underbuilding of homes since 2007-2009 financial recession creates significant cumulative deficit in available homes today
- Impact from COVID-19 pandemic increasing preferences for single family housing.

Source: Harvard JCHS

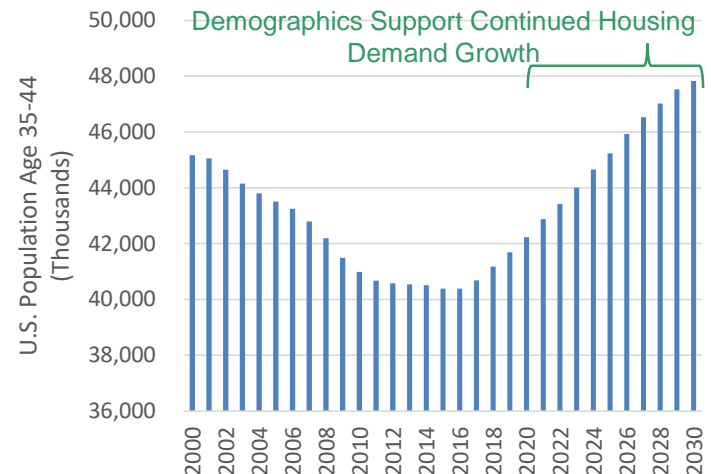
## U.S. Repair and Remodel Expenditures (\$B)



## U.S. Housing Starts 2000 - 2020



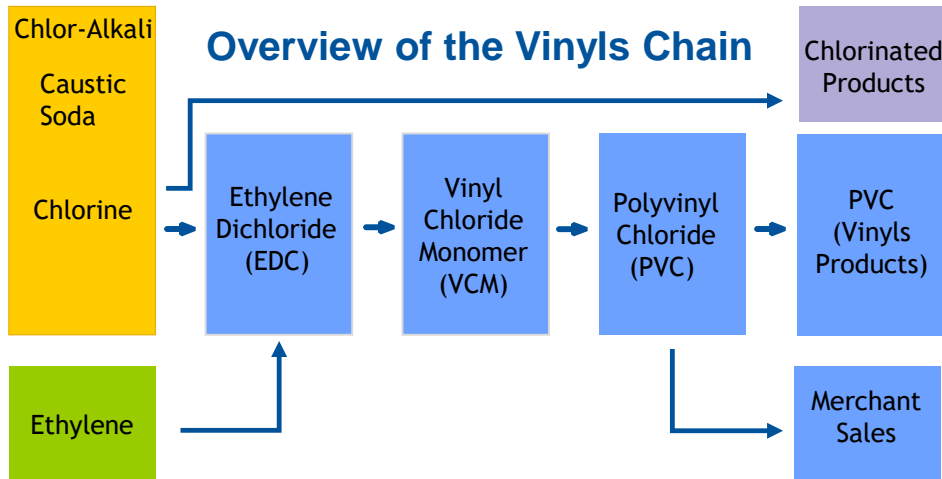
## U.S. Population Age 35-44: Peak Household Formation Years



Source: U.S. Bureau of the Census, OECD

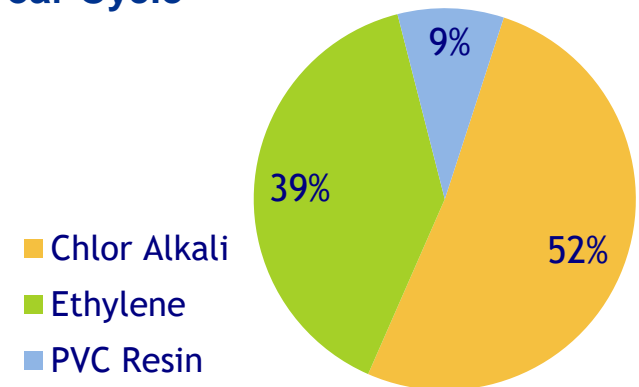
# Low Cost Producer of PVC

## Combined with High Integration Captures Margin



**Majority of Margin Captured in Chlor-Alkali and Ethylene.**

**Average Vinyls Industry Margin Distribution Over the Last 10 Year Cycle**

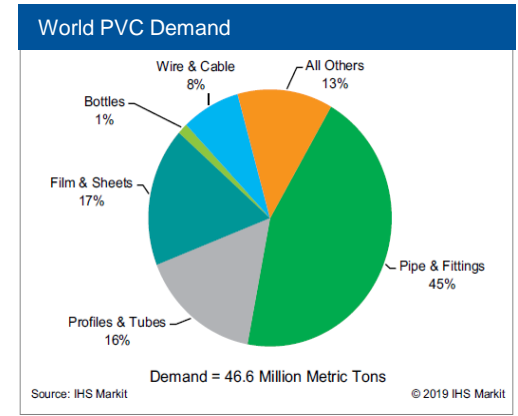
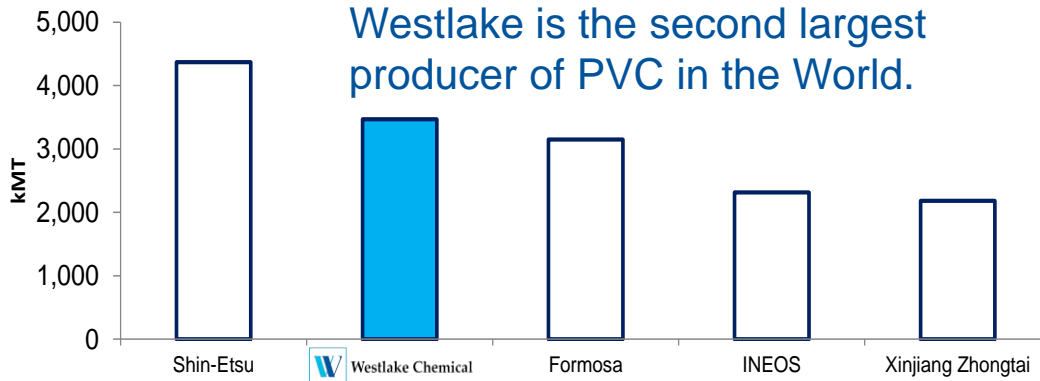


- **Westlake has made numerous PVC debottlenecks that inexpensively capture more integrated margin**
- Integration has allowed Westlake to operate its chlorovinyls plants at higher operating rates than US industry average.
- Increased ownership in the Westlake – Lotte JV Ethylene cracker expands Ethylene integration advantage.
- Through backward integration into Chlor Alkali (shale gas based power) and ethylene (shale gas based ethane), Westlake is consistently one of the lowest cost PVC producers globally.
- Cost competitive PVC exports as Westlake sits long-term at the low end of the cost curve.
- Complexity of vinyls chain drives value and raises barriers to entry.

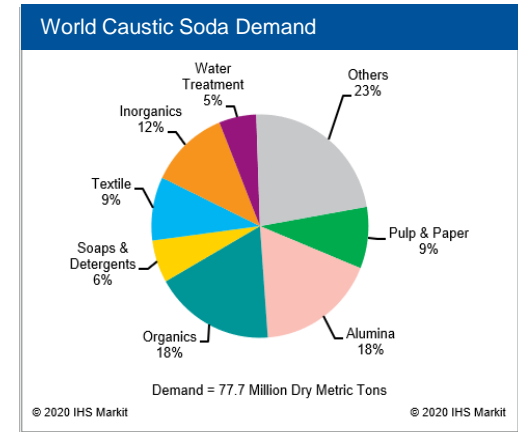
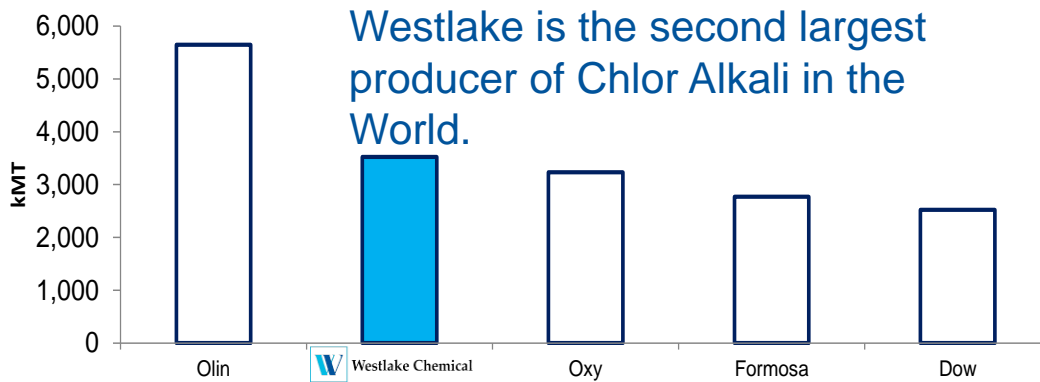


# A Global Chlorovinyls Leader with Enhanced Scale

2021 Global PVC capacity (KMT)



2021 Global Chlor-Alkali capacity (KMT)



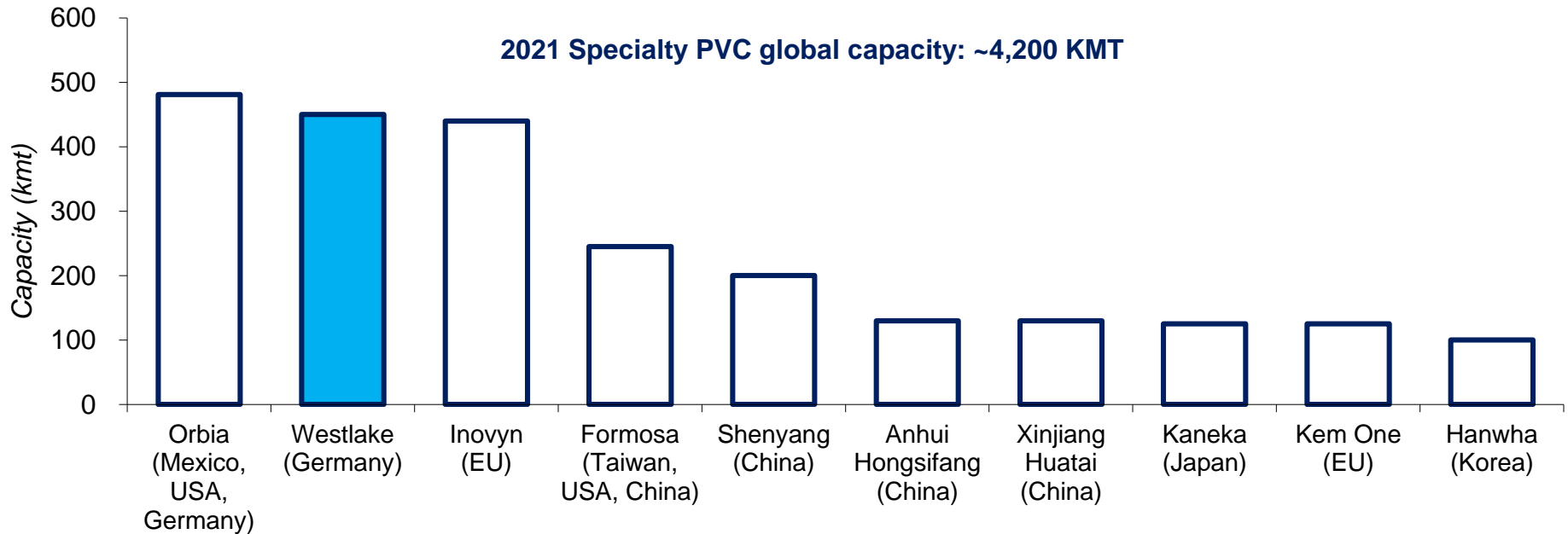
## Solid Fundamentals for PVC and Chlor Alkali:

- Supply / demand balance with minimal announced capacity additions in both PVC and Chlor Alkali expected to provide healthy forward fundamentals.
- Westlake is a globally low cost producer of PVC and Chlor Alkali.



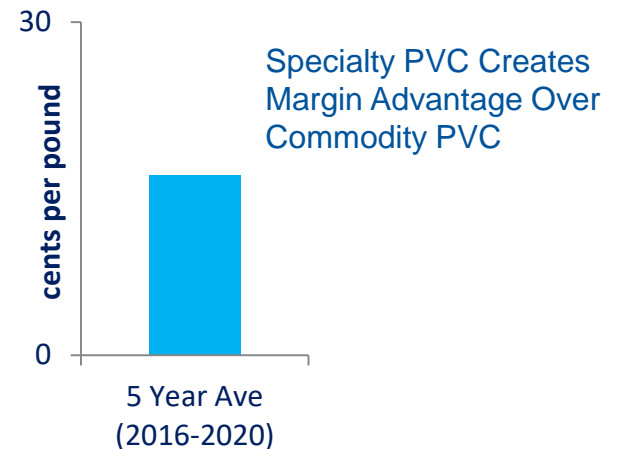
# Westlake is a Global Leader in Specialty PVC

**Westlake / Vinnolit is a leading producer of specialty PVC**



Westlake's Vinnolit operations provide specialty PVC which:

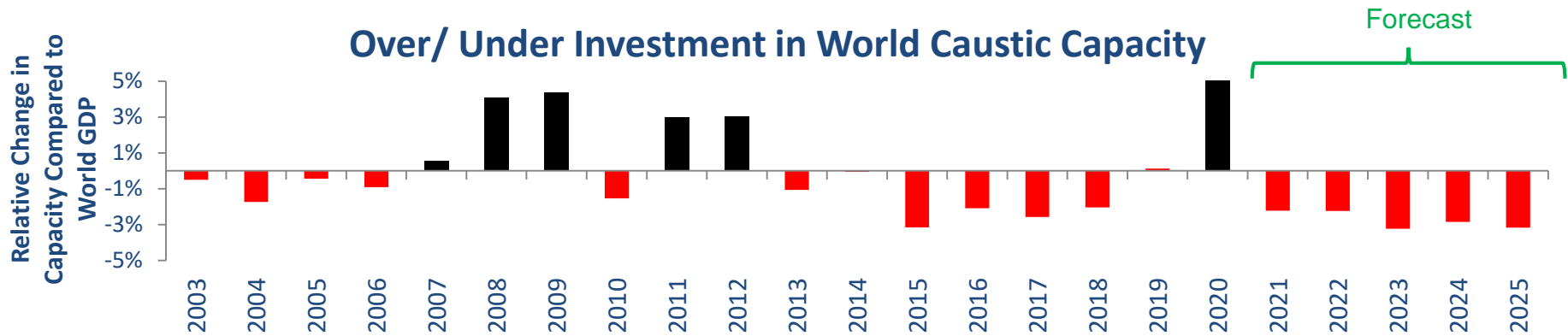
- Delivers higher margins and diversifies end market demand vs. commodity PVC.
- Broadens Westlake's market channels.



Source: IHS Markit

# Fundamentals in Chlor Alkali Constructive

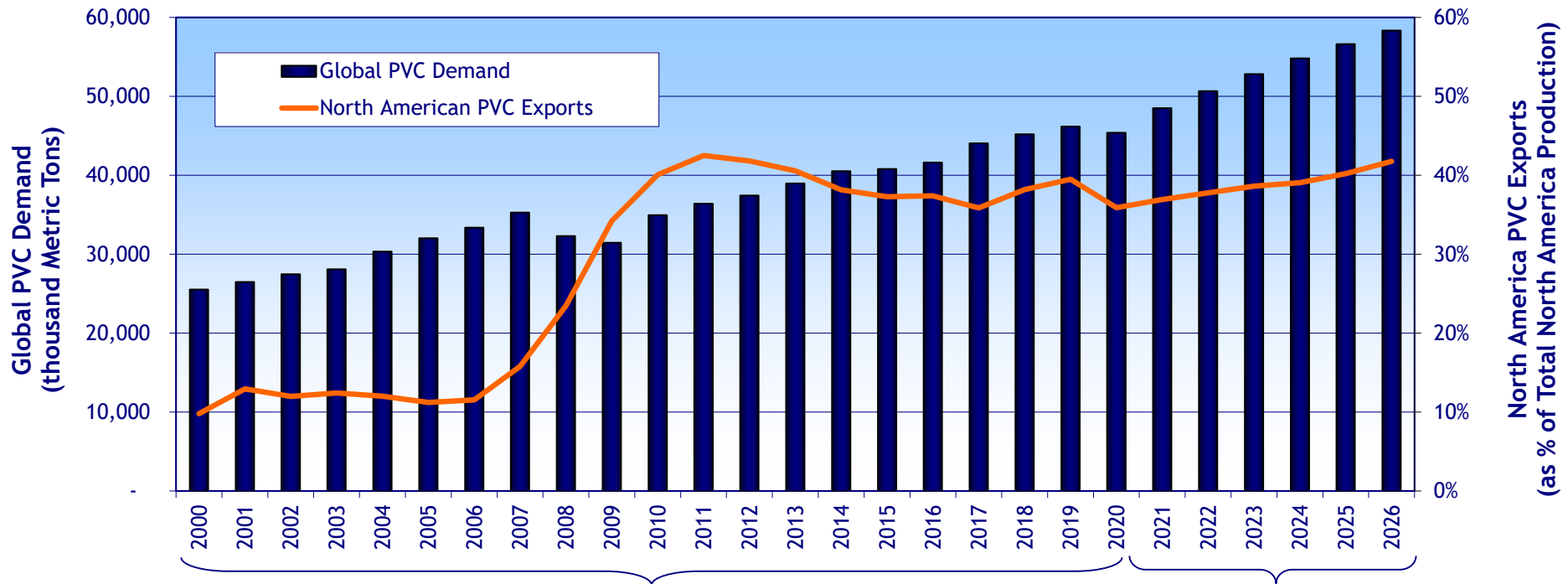
Significant under investment positions the industry to benefit as demand grows



- Integrated facilities in North America benefit from consistently low cost feedstocks and natural gas.
- Outlook for demand growth outpaces industry capacity additions.



# Growing Global PVC Demand Supports North American Exports



Source: IHS Markit

2000 – 2020 Global Demand CAGR = 2.9%

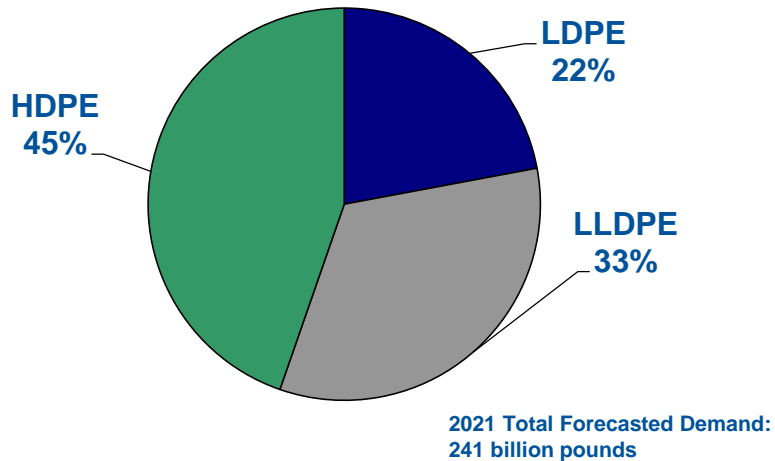
2021 – 2026  
Global Demand  
CAGR = 3.8%

- Global growth in PVC demand is forecasted to continue growing well into the future.
- Producers with a high level of integration benefit with higher margins over the cycle.
- Global growth in PVC demand and long-term advantaged feedstocks in PVC production supports North American production.

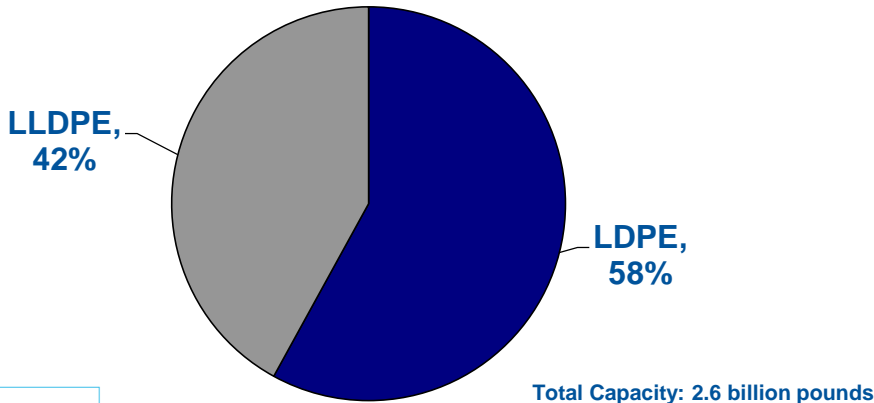


# Advantaged Polyethylene Product Mix

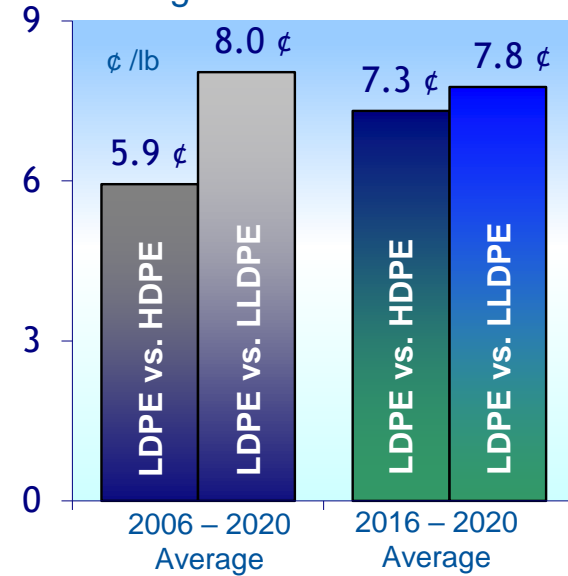
2021 Global Industry Demand  
(% share)



Westlake Capacity (% share)



LDPE is More Profitable than LLDPE and HDPE  
Average Margin Advantage of LDPE vs. Other PE Grades



Specialty PE<sup>(1)</sup> Is Even More Profitable



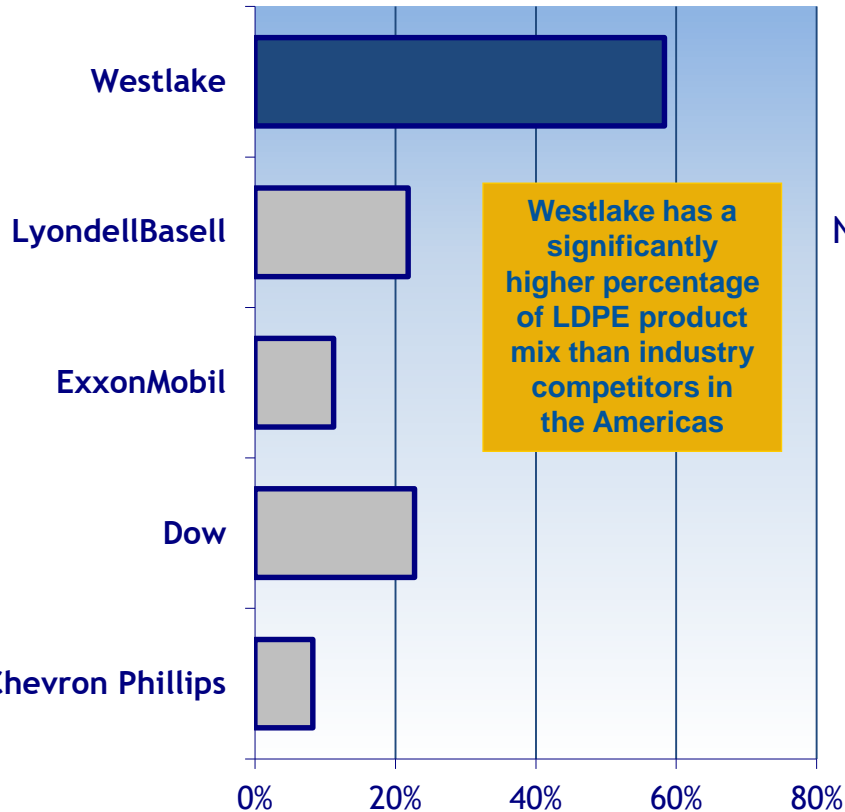
Note (1): Chart above reflects a mix of both specialized and differentiated products for LDPE and LLDPE.



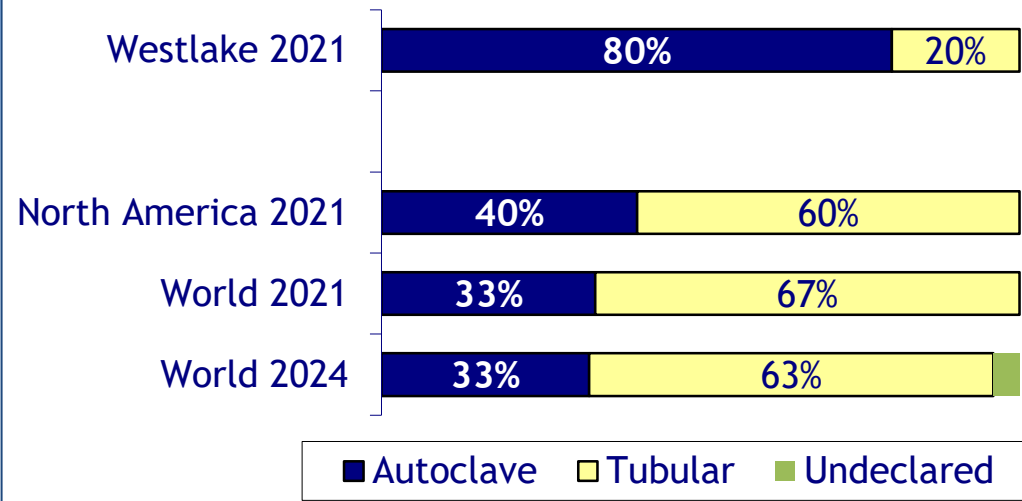
# Advantaged Product Mix

## Westlake's Unique LDPE Focus

### LDPE Capacity as a Percentage of Total Company PE Capacity



### The Specialty Advantage



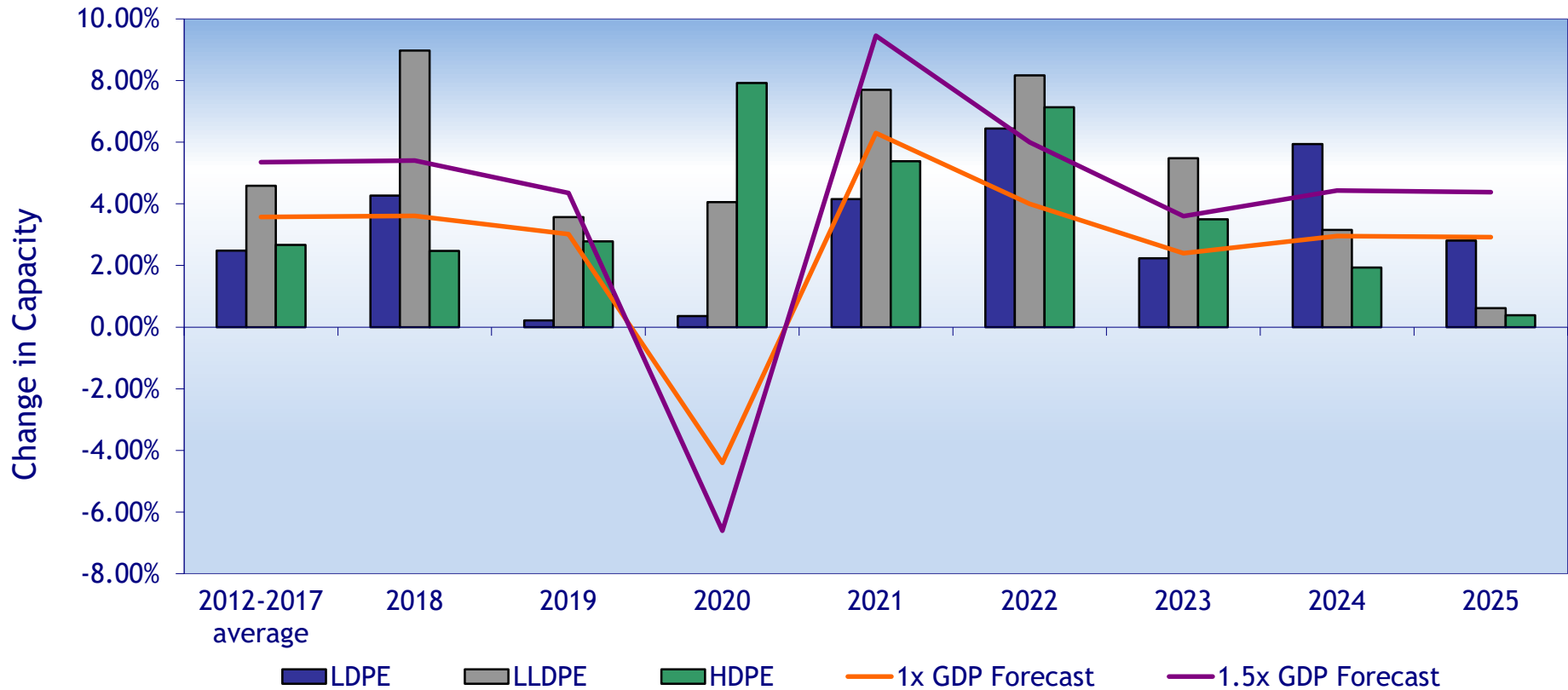
### Autoclave vs Tubular LDPE:

- Autoclave LDPE is a more specialty product with broader applications and better margins; Westlake's focus into food packaging applications provides demand stability.
- Supply/demand balance for autoclave grows tighter.



# Global Polyethylene Capacity Additions are Focused on LLDPE and HDPE, not on LDPE

World Polyethylene Capacity Growth by Product



Westlake is focused on LDPE:

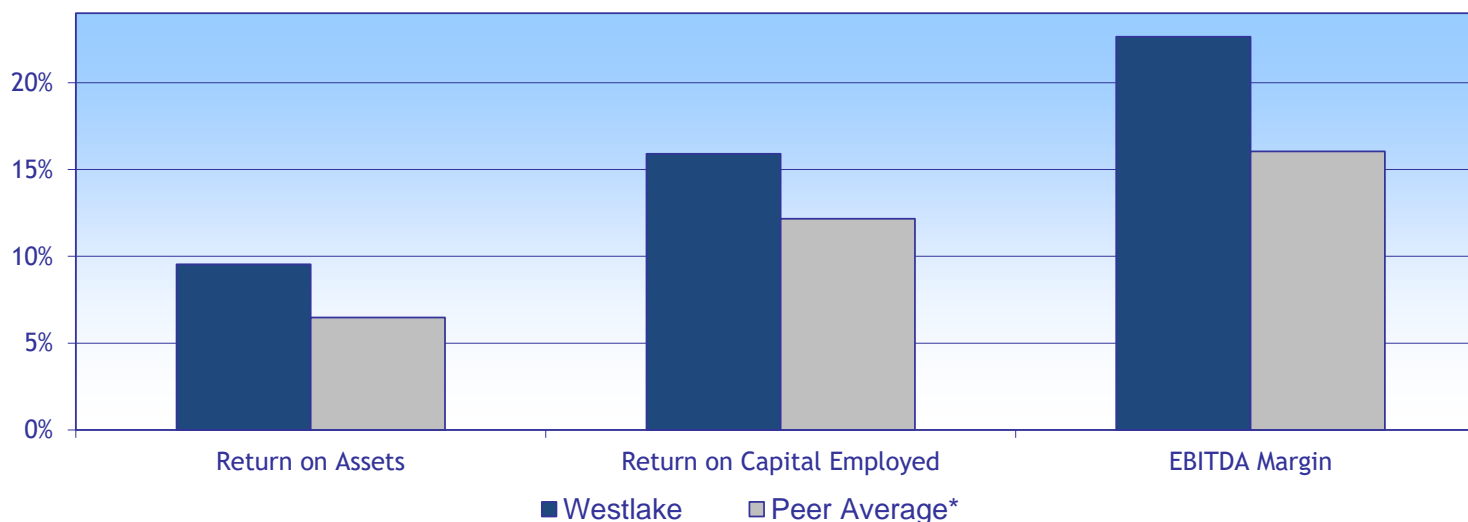
- Global polyethylene demand grows between 1.0x to 1.5x GDP.
- LDPE capacity additions are limited and almost all commodity grade.
- Westlake focus on food packaging provides stable demand support in 2020.



# A History of Financial Discipline

- A leading materials company founded and operated on value creation.
- A global, diversified products producer fueled by long-term low cost feedstock.
- High level of product integration drives higher operating rates with higher margin specialty production in Polyethylene and PVC.
- Strong integrated domestic sales channels provide opportunity for acquisition synergies.
- Disciplined investment culture and a strong balance sheet provide for ability to weather economic cycles and generate strategic growth over time.

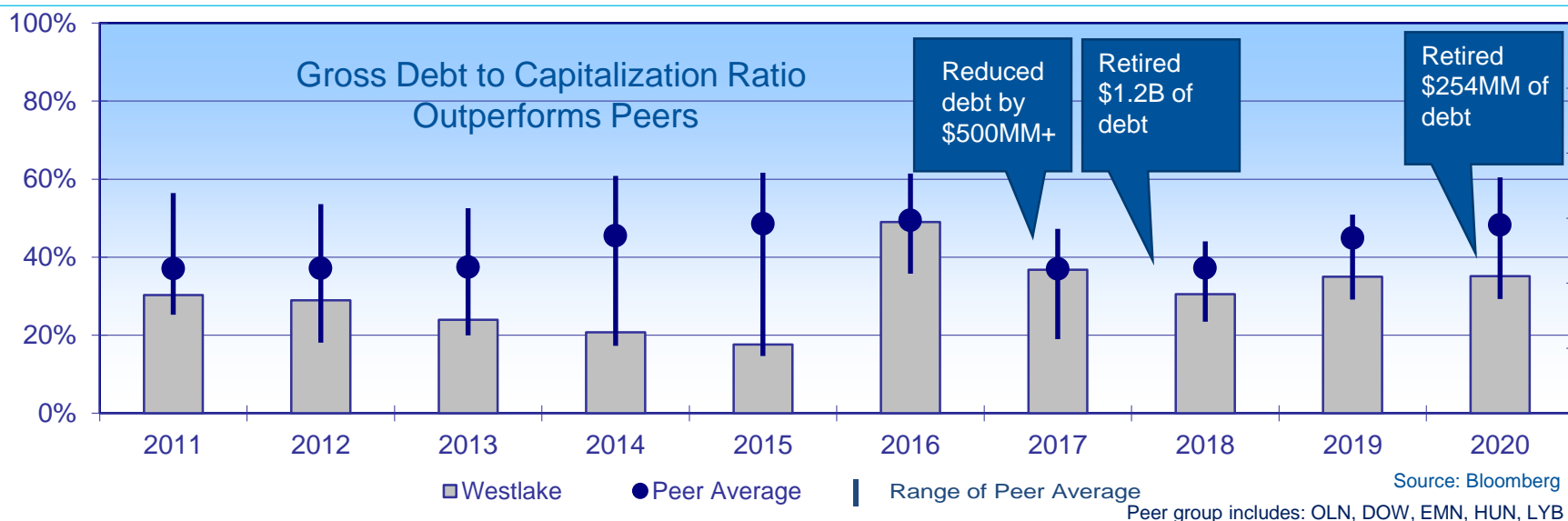
2011 – 2020



Source: Bloomberg

\*Peer averages as of latest available data  
includes: EMN, HUN, OLN, LYB, DOW

# Conservative Financial Profile



## Westlake:

- Is committed to maintaining solid investment grade credit metrics and ratings.
- Has shown a significant growth in business while maintaining a conservative balance sheet.

## Westlake Chemical Partners (WLKP) provides Westlake Chemical Corporation (WLK) with:

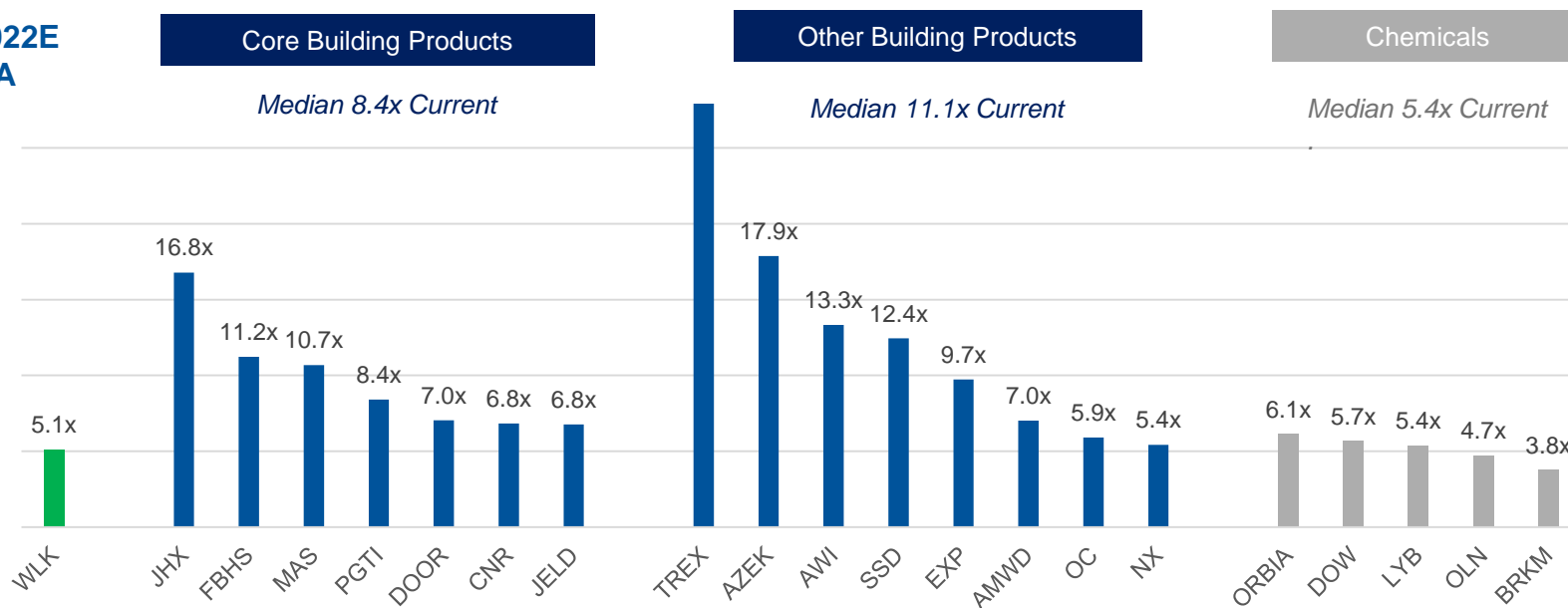
- Allows Westlake Chemical Corporation to capture a premium EBITDA multiple and reinvest it back into its chemical business, providing cost effective capital to fund future needs.
- Over \$500MM of equity proceeds raised by Westlake Partners has been reinvested by Westlake Chemical to generate incremental EBITDA at WLK.

Agency	Rating
S&P	BBB
Fitch	BBB
Moody's	Baa2

# Addition of Boral NA Creates Building Materials Business in Scale on Par to Large Stand-Alone Public Peers

- Acquisition of Boral's North American Building Products creates a Building Products business at Westlake comparable in size to many large publicly traded stand-alone peers
- Building Products companies consistently trade at premium TEV/EBITDA multiples relative to chemical companies.
- Addition of BNA significantly increases the portion of Westlake attributable to these higher valued earnings and cash flow associated with Building Products.

EV / 2022E  
EBITDA



Note: Values per Bloomberg as of November 2, 2021. JHX: James Hardie, FBHS: Fortune Brands, MAS: Masco, PGTI: PGT Innovations, DOOR: Masonite, CNR: Cornerstone, JELD: Jeld-wen TREX: Trex Company, AZEK: Azek Company, AWI: Armstrong, SSD: Simpson, EXP: Eagle Materials, AMWD: American Woodmark, OC: Owens Corning, NX: Quanex, Orbia: Orbia, Dow: Dow Inc., LYB: LyondellBasell, OLN: Olin, BRKM: Braskem

# Strategic Investment Drives EBITDA Growth

**Westlake Chemical continues its proven record of strategically deploying capital to fund future bottom line growth**

Strategic Growth Delivers Strong Results

## Proven Results

Added Ethylene Capacity

Added PVC Capacity

Added Chlor Alkali Capacity

Acquired Vinnolit and Specialty PVC Products



Added Ethylene Capacity

Acquired Axiall

Acquired NAKAN

Acquired DaVinci



Adding PVC Capacity

Added Ethylene Capacity

Acquired Boral NA, LASCO and Dimex in 2<sup>nd</sup> half of 2021

Pending Hexion Epoxy Acquisition, anticipated close in 1H 2022



## Future EBITDA

- Timely investments to integrate the full value chain drive EBITDA.
- Conservative balance sheet provides strength to weather economic cycles and fund future opportunistic growth.



# Reconciliation of Westlake EBITDA to Net Income and to Cash Flow from Operating Activities (in \$ millions)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	TTM 3Q 2021
Adjusted EBITDA	\$ 584	\$ 780	\$ 1,118	\$ 1,330	\$ 1,244	\$ 1,015	\$ 1,841	\$ 2,101	\$ 1,407	\$ 1,246	\$ 2,948
Debt Retirement Cost	-	(7)	-	-	-	-	-	-	-	-	-
EBITDA	584	773	1,118	1,330	1,244	1,015	1,841	2,101	1,407	1,246	2,948
Less:											
Income Tax (Provision) Benefit	(142)	(200)	(332)	(399)	(298)	(138)	258	(300)	(108)	42	(456)
Interest Expense	(51)	(43)	(18)	(38)	(35)	(79)	(159)	(126)	(124)	(142)	(164)
Depreciation & Amortization	(132)	(144)	(158)	(208)	(246)	(378)	(601)	(641)	(713)	(773)	(796)
Non Controlling Interest	-	-	-	(6)	(19)	(21)	(35)	(38)	(41)	(43)	(48)
Net Income	259	386	610	679	646	399	1,304	996	421	330	1,484
Non Controlling Interest	-	-	-	6	19	21	35	38	41	43	48
Changes in operating assets & liabilities and others	86	233	49	288	374	346	723	313	785	778	494
Deferred income taxes	14	6	94	59	40	101	(534)	62	54	146	42
Cash flow from operating activities	\$ 359	\$ 624	\$ 753	\$ 1,032	\$ 1,079	\$ 867	\$ 1,528	\$ 1,409	\$ 1,301	\$ 1,297	\$ 2,068
Vinyls EBITDA	48	131	207	247	398	415	1,095	1,439	1,032	957	2,083
Olefins EBITDA	549	655	944	1,126	863	699	803	715	407	303	908
Corporate EBITDA	(13)	(13)	(33)	(43)	(17)	(99)	(57)	(53)	(32)	(14)	(43)
Westlake Adjusted EBITDA	\$ 584	\$ 773	\$ 1,118	\$ 1,330	\$ 1,244	\$ 1,015	\$ 1,841	\$ 2,101	\$ 1,407	\$ 1,246	\$ 2,948

## Note 1 from page 2: Non-GAAP Financial Measures

This presentation includes the non-GAAP measure EBITDA. A reconciliation to net income and to cash flow from operating activities is included above.



# Safe Harbor Language

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This presentation contains certain forward-looking statements including statements regarding managing working capital, lowering operating costs and reducing capital expenditures and the timing of the Petro 2 turnaround. Actual results may differ materially depending on factors such as general economic and business conditions; the cyclical nature of the chemical industry; the availability, cost and volatility of raw materials and energy; uncertainties associated with the United States, Europe and worldwide economies, including those due to political tensions in the Middle East and elsewhere; current and potential governmental regulatory actions in the United States and Europe and regulatory actions and political unrest in other countries; industry production capacity and operating rates; the supply/ demand balance for our products; competitive products and pricing pressures; instability in the credit and financial markets; access to capital markets; the COVID-19 pandemic and the response thereto; terrorist acts; operating interruptions including leaks, explosions, fires, weather-related incidents, mechanical failure, unscheduled downtime, labor difficulties, transportation interruptions, spills and releases and other environmental risks; changes in laws or regulations; technological developments; our ability to implement our business strategies; creditworthiness of our customers; and other factors described in our reports filed with the Securities and Exchange Commission. Many of these factors are beyond our ability to control or predict. Any of these factors, or a combination of these factors, could materially affect our future results of operations and the ultimate accuracy of the forward-looking statements. These forward-looking statements are not guarantees of our future performance, and our actual results and future developments may differ materially from those projected in the forward-looking statements. Management cautions against putting undue reliance on forward-looking statements. Every forward-looking statement speaks only as of the date of the particular statement, and we undertake no obligation to publicly update or revise any forward-looking statements.

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