

# PSR Webindr

# COVID-19: GLOBAL IMPACT ON PRODUCTION OF MHCV, OFF-HIGHWAY & INDUSTRIAL EQUIPMENT

April 15, 2020

www.powersys.com



APAC, INDIA,

SE ASIA

# Welcome Message

## **Joe Zirnhelt**

# President and CEO

**Power Systems Research** 

Welcome. Thank you for joining us today.

The current global situation is one that is likely to have a deep impact on key segments of the world economies and is unlike anything we have seen in recent times. We believe that the global nature of the pandemic, coupled with its high intensity and potentially longer duration, has the ability to alter the business landscape and patterns in ways not seen previously.

Today's webinar is an effort to share some of these perspectives from our global team and to provide some insights into resolving some of your immediate questions about impact of current situation on some of the segments and markets in which you operate.

	ns Research recasting · Solutions								Q&A AND CONTACTS	
Agenda	01	Welcome & Introduc	elcome & Introduction: Joe Zirnhelt, President and CEO							
	02	Global Overview: Jim Downey, Vice President-Global Data Products								
	North America Overview									
	03	<ul><li>Yosyf Sheremeta,</li><li>Chris Fisher, Senio</li></ul>	0	, 0	s)					
	04	South America Over	<b>view:</b> Ca	rlos Brigan	iti, Manag	ing Directo	or, South /	America		

# 05

Europe Overview: Emiliano Marzoli, Senior Business Development Manager-Europe



#### Asia Overview

- Erik Martin, Director-Asia Region
  - Jinal Shah, Regional Director-South Asia Operations

#### Q&A



# 40+ Years of Growth, Expertise and Innovation

DATA FORECASTING

- Global market research, industry data & forecasting
  - Utilized by engine manufacturers, OEMs, component and parts suppliers, associations, financial analysts, publications and more.
- All segments; global power products/drivetrain industry
- More than 40 years' industry expertise
- Proprietary market studies
- In-house call center
- Market intelligence & modeling



SOLUTIONS



#### Production, Sales & Population Data

Information for multiple industries and markets

#### **Engine and Alternative Powered Applications**





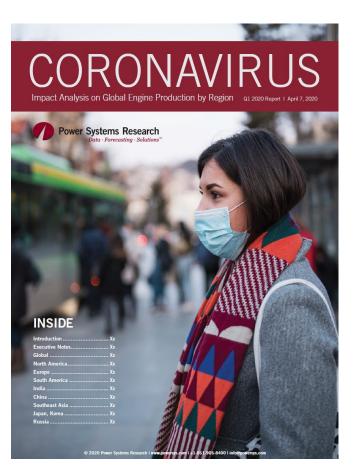
WELCOME	GLOBAL
& INTRO	OVERVIEW

APAC, INDIA,

SE ASIA

## Upcoming Reports – Available to Webinar Attendees

#### **CORONAVIRUS** and its Global Impact on **Engine and Equipment Production**



#### Q1 2020 Truck Production Index (PSR-TPI)



#### First Quarter 2020

Q1 2020 Power Systems Research Truck Production Index (PSR-TPI) falls 31.1%

ST. PAUL, MN - The Power Systems Research Truck Production Index (PSR-TPI) decreased from 122 to 84, or 31.1%, for the three-month period ended March 31, 2020. from Q4 2019. The year-over-year (Q1 2019 to Q1 2020) loss for the PSR-TPI was, 116 to 84, or 27.6%.

The PSR-TPI measures truck production globally and to significantly lower demand in 2020. Prior to the America, Japan & Korea and Emerging Markets.

This data comes from CV Link<sup>™</sup> the proprietary database maintained by Power Systems Research.

All Regions: Prior to the spread of the Coronavirus, most regions were experiencing a slowdown in commercial truck demand. Depending on the duration of the virus, several countries are expected to slip into recession or a significant economic slowdown as a result.

Global Index: The possibility of a global recession now exists but it is uncertain how severe this may be. Some regions will fair better than others

North America: The introduction of the Coronavirus along with an overcapacity of heavy trucks will lead across six regions: North America, China, Europe, South Coronavirus outbreak, concerns about the Chinese tariffs and an overall slowdown in global economic growth were causing some headwinds for truck demand.

> Europe: Prior to the spread of the Coronavirus, a slowdown in demand for medium and heavy commercial trucks in 2020 was expected due to a softening in both the domestic and export markets. The potential fallout from Brexit, unrest in France along with concerns about the impact of tariffs had already placed negative pressure on the European market

#### **TPI** authors



im Downey is vice president global data products at Power stems Research



WELCOME & INTRO GLOBAL NORTH OVERVIEW AMERICA

H SOI CA AME

SOUTH EUROPE AMERICA Q&A AND CONTACTS

APAC, INDIA,

SE ASIA

# **Global Overview**

# Jim Downey Vice President-Global Data Products



# Global Overview - Items Common to All Regions

Impacts of supply & demand working through supply chain.

WELCOME

& INTRO

GLOBAL

**OVERVIEW** 

- Virus working from east to west common cycle expected but differences by region.
- Highlight 2020 projections and where we are with our current Q1 2020 update.
- Regions will cover different scenarios for 2020: Current/Base, Best Case and Worst Case.

Power Systems Research	WELCOME	GLOBAL	NORTH	SOUTH	EUROPE	APAC, INDIA,	Q&A AND
Data · Forecasting · Solutions	& INTRO	OVERVIEW	AMERICA	AMERICA		SE ASIA	CONTACTS
	& INTRO	OVERVIEW	AMERICA	AMERICA		SE ASIA	CONTACT

# **Global Overview**

#### Impacts of supply & demand working through supply chain

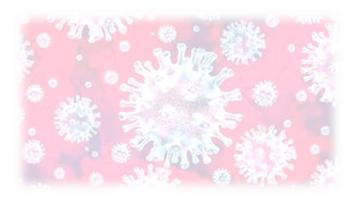
- Governments, organizations and citizens are facing real challenges throughout the globe
- Pandemic is threatening the public's health as well as the stability of economies
  - International supply chains very vulnerable to disruption
  - Production plants have either shortened hours or closed completely in some cases
  - Congestion at ports, containers not being picked up
  - Lower demand in North America will probably affect Chinese production and elsewhere in 2020



# **Global Overview**

Virus working from east to west:

"Common cycle expected but differences by region"



COVID-19 Overview as of 2020-04-14 = Global Coronavirus Cases: 1,970,879

Deaths: 125,678

Recovered: 472,948

- China is re-opening business
- Europe may have hit their peak
- USA varying by state, this week seemingly very important, Most cases and deaths as this point now

Power Systems Research Data · Forecasting · Solutions	WELCOME & INTRO	GLOBAL OVERVIEW	NORTH AMERICA	SOUTH AMERICA	EUROPE	APAC, INDIA, SE ASIA	Q&A AND CONTACTS
<b>Global Overview</b>			5,000	Glo	bal 2020 Proj	ections	
Highlight 2020 projections - where volume our current Q1 2020 update	we are wil	h	4,500 4,000 3,500 3,000 2,500 2,000				
Global Production down in 2020 compared to 2019 by			1,500 1,000 500				
Segment:			-	Agricultural	Construction	Industrial	Medium and Heavy Vehicles
<ul> <li>Agricultural Machinery 9%</li> </ul>				■ 2019	Production 202	0 Production	

- Construction Equipment 9%
- Industrial Segment 10%
- Medium and Heavy Vehicles 16%

Segment	2020 Growth Rates	2021 Growth Rates
Agricultural	-9.2%	-0.27%
Construction	-9.4%	3.8%
Industrial	-10.0%	4.7%
Medium and Heavy Vehicles	-16.2%	2.9%
Total	-11.3%	2.5%



# **Global Overview**

#### Regions will cover different scenarios for 2020: Current/Base Case, Best Case and Worst Case

- North America
- South America
- Europe
- China, Far East, India and Southeast Asia





APAC, INDIA, SE ASIA Q&A AND

CONTACTS



# North America Overview Off-Highway Segments

# Yosyf Sheremeta, PhD

Director of Product Management and Customer Experience



WELCOME	GLOBAL	NORTH	SOUTH	EUROPE	APAC, INDIA,	Q&A AND
& INTRO	OVERVIEW	AMERICA	AMERICA		SE ASIA	CONTACTS

# General situation updates on the COVID-19 in North America:

- Later arrival of COVID-19, spreading from both coasts to mainland
- Strong overall economy pre-Covid with lowest unemployment
- Pandemic has ended the longest economic expansion recorded in US history
- Strong U.S. government support amidst crisis: Interest rates, consumer and business stimulus; direct investments into economic sectors
- U.S. Elections 2020: economic and political risk management
- Social distancing is a new norm; stay at home orders
- Most non-essential businesses are closed (late March mid May)
- Many OEMs are adjusting and shifting their production lines and facilities to manufacture medical supplies and equipment: PPD, ventilators





# Pandemic Impact on OEMs within Off-Highway Equipment segments

- Crisis management mode: situation assessment and short-term planning; budgets and hiring freezes; conducting scenario planning exercises to understand operational implications
- Continued downward pressure on demand, along with supply chain issues, as the COVID-19 pandemic intensifies
- Large OEMs and Components Suppliers shifted critical production among plants in operation
- OEMs with global supply chains may see tier 2 and especially tier 3 suppliers most affected
- Understanding how global manufacturers are managing through disruptions to their supply chains will help all businesses structure their own response and recovery strategy
- Supply chain assessment: risk management and trade policies. The pandemic will result in longerlasting reconfigurations of supply chains to build resilience.
- Mid-term strategic initiatives beyond COVID-19: business review and strategy adjustments (2021-2022)
- M&A: potential to manage and diversify risk among OEMs in North America and globally.



# North America: Recovery Scenarios for Off-Highway Equipment segments

**Best Case (Virus contained in 2-3 months) -** V-shaped recovery propelled by strong economic stimulus, increase of economic activities and return of demand. Near full recovery within 18 months

Base Case (3-6 months) - Demand and recovery activities will re-start in H2 2020 with stronger Q4. Economic cycle reset. Small growth in 2021. Full recovery in 2-3 years

Worst Case (6-18 months) - Prolong impact on North America and world economies, global recession with significant impact on the industry. Complete economic reset across all sectors, industries and geographies. Low demand and slow economic activities in 2021; No significant growth till 2022

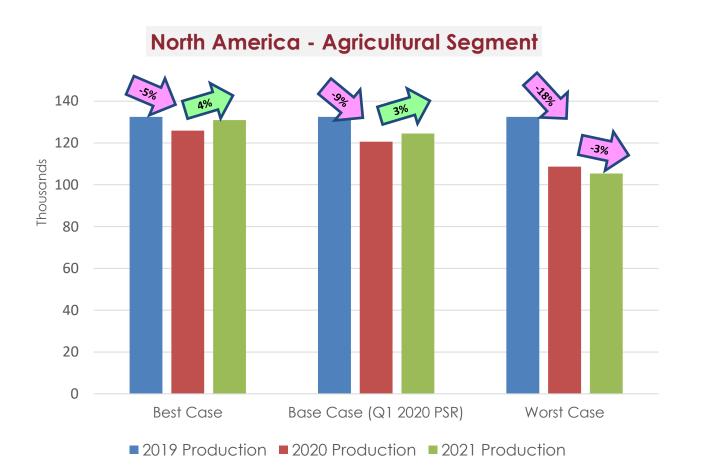


NORTH SOUTH AMERICA AMERICA Q&A AND CONTACTS

APAC, INDIA,

SE ASIA

# Agricultural Equipment: All Applications and HP ranges



\*Base Case Data Source: OE Link<sup>™</sup> Production - Forecast database

- Segment has significantly declined over the past few years and was set to recover in 2020
- Typical growth cycle is 4-5 years
- Recovery will not take place until 2021-2022
- Demand drivers: commodity prices, interest rates, subsidies, global trade/tariffs, weather

#### 2020 Projected Decline:

- Largest impact Balers: -24%
- Smallest Impact Sprayers: -8%



DBAL NORTH RVIEW AMERICA

SOUTH A AMERICA

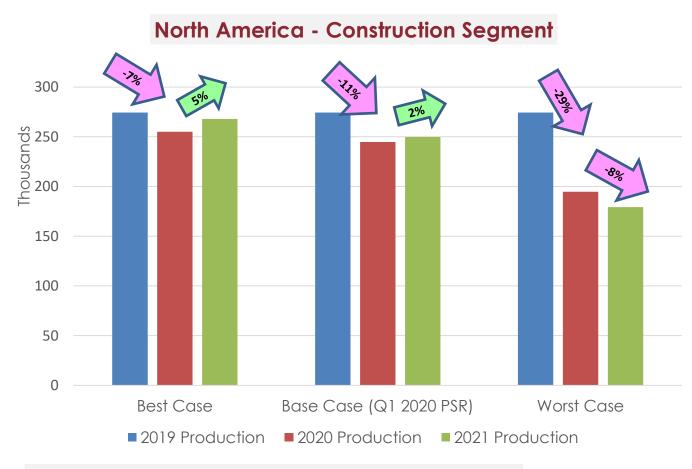
TH EUROPE

Q&A AND CONTACTS

APAC, INDIA,

SE ASIA

# Construction Equipment: All Applications and HP ranges



\*Base Case Data Source: OE Link<sup>TM</sup> Production - Forecast database

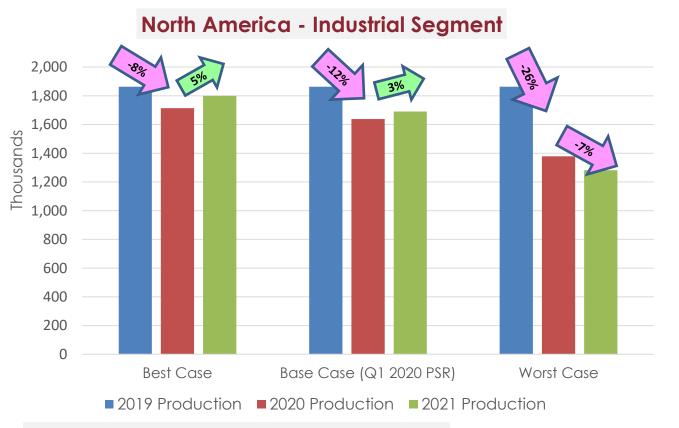
- Complete reset of the growth cycle, regardless of the virus containment.
- Recovery will not take place until 2021-2022
- Government spending may put some Infrastructure investments on hold
- Housing: despite low inventory, new starts will be low in 2020-2021
- Rental companies and small equipment OEMs will suffer most in short-term

#### 2020 Projected Decline:

- Largest impact- Scrapers: -20%
- Smallest Impact- Mixers: -6%



# Industrial Equipment: All Applications and HP ranges



<sup>\*</sup>Base Case Data Source: OE Link<sup>™</sup> Production - Forecast database

- Industrial equipment recovery trend will closely follow Construction segment and will not start until 2021
- Demand for material handling and forklift applications will depend on economic recovery
- Equipment for Oil and Gas industry will suffer most in the short term

#### 2020 Projected Decline:

- Largest impact- Cranes: -16%
- Smallest Impact- Gas Compressors: -6%





# North America Overview Medium & Heavy Vehicles

**Chris Fisher** Senior Commercial Vehicles Analyst



# How have businesses responded that are in the supply chain for equipment production in the Medium & Heavy Vehicles?

- Daimler: Due to part shortages, Daimler extended their shutdown of most North American plants until April 20<sup>th</sup>.
- Navistar: Due to the supply disruption, the Springfield plant ceased production from March 23<sup>rd</sup> and plans to reopen on April 27<sup>th</sup>. Other Navistar plants have also experienced shutdowns.
- PACCAR: Extended their global truck and engine plant shutdowns until April 20<sup>th</sup>.
   PACCAR cited a weaker global outlook for the extended shutdown.
- Basically, most of the plants are currently shut down through the end of April. This may
  get pushed out further during the coming days.



# What are the drivers and influences that will affect final production numbers in 2020?

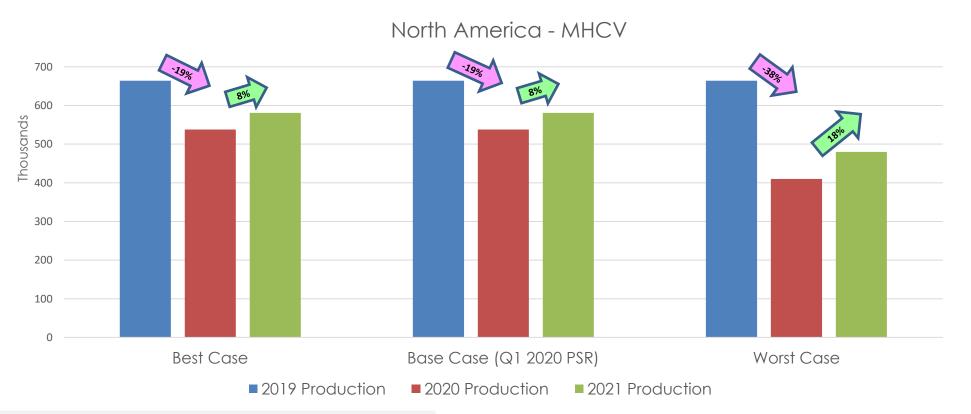
- Truck overcapacity will continue throughout the year. Large fleets will continue to buy on schedule, but smaller fleets will likely push orders back.
- The supply chains are already facing disruption. The key will be how quickly they can get back on-line once this is over.
- All of the OEM's are currently shut down more or less though the end of April. This may be
  extended based upon factors such as further supply chain disruptions, stay-at-home
  orders or continued low truck orders.



# What is our estimate for 2020 production within Medium & Heavy Vehicle segment?

- The introduction of the Coronavirus along with an overcapacity of heavy trucks will lead to significantly lower demand in 2020.
- The length of the stay-at-home order is the primary driver that will affect 2020 production and the economy overall.
  - However, several factors will determine the final production number this year.
  - Class 8 truck production will be particularly vulnerable this year.
- The worst-case scenario would be fleets cancelling currently orders and putting off new orders until Q4 or Q1 2021.
- The best case would be getting much of the country back to work in the next 30-45 days.





\*Base Case Data Source: OE Link<sup>™</sup> Production - Forecast database

- Stimulus props up the economy until business re-opens
- Business able to re-open in later in June
- Truck orders pick up early Q3
- Supply chain prepared for increase orders

- Orders do not pick up until late Q3
- Small fleets put off orders to preserve cash
- "Stay at Home" lasts into Q3
- Truck, engine, supplier plants do not reopen in Q2
- Supply chain not prepared



GLOBAL NORTH OVERVIEW AMERICA SOUTH AMERICA EUROPE

APAC, INDIA, C SE ASIA CO

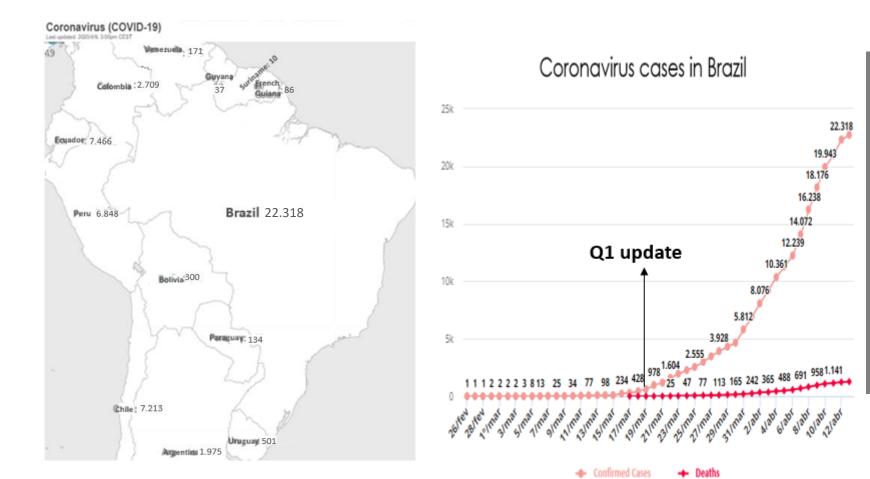
Q&A AND CONTACTS

# South America Overview

# **Carlos Briganti** Managing Director, South America



## General situation updates on the virus in South America



Pandemic epicenter is São Paulo

Q&A AND

CONTACTS

- Peak is expected by 3<sup>rd</sup> week of May
- Only essential activities at work
- Borders closed for 30 days
- Quarantine should last until 3<sup>rd</sup> week of April
- It could be extended depending on evolution of number of cases
- Potential flexibility on regions not affected by coronavirus



WELCOME	GLOBAL	NORTH	SOUTH	EUROPE	APAC, INDIA,	Q&A AND
& INTRO	OVERVIEW	AMERICA	AMERICA		SE ASIA	CONTACTS

## MHV and Off-Highway Machine Plants in Brazil

#### Medium & Heavy Vehicles:

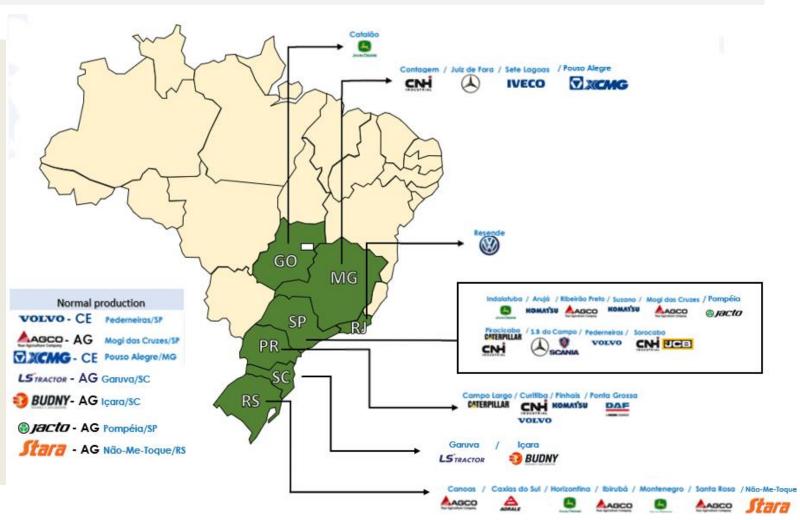
All 07 plants shutdown

#### **Off-Highway**:

- 21 plants 14 shutdown
- Shutdown Start: Mar, 23<sup>rd</sup>
- Shutdown up to: Apr 22<sup>nd</sup> or 30<sup>th</sup>

#### Local suppliers:

Following OEMs shutdown





## UNIQUES FACTORS IN SOUTH AMERICA

- Slums in large cities poor sanitary conditions plus people concentration
- Underestimated number of cases due to lack of quick test
- High level of unemployment (12% in Brazil) plus not formal jobs
- Countries coming from difficult economic conditions:
  - Brazil 2015/2017 recession 2018/2019 low growth rate
  - Argentina under recession
  - Chile social turbulence impacting economy
- Brazil has a unique health system able to attend to all population



# **KEY FACTORS AFFECTING PRODUCTION**

### Factory Shutdowns:

If necessary, to extend beyond May

## Supply Chain:

- 30% to 35% of vehicle and/or machine content are imported components
- Main sources are Europe and China

## Low Demand:

Considering that recovery starts only in last quarter



# Q1 2020 – Current Case

- Pandemic would reach a peak in April
- Partial return to activities in May
- Normal activities in July starting recovery in 2<sup>nd</sup> half
- GPD flat in 2020, based on excessive downturns in Q2 and recovery in H2
- Government inserting \$200 Billion in the economy

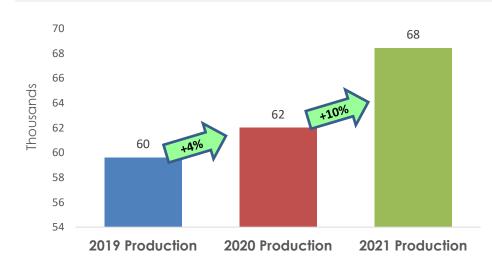
# Q1 2020 – Worst Case

- Extension of pandemic to Q3
- Normal activities in September
- GDP downturns in the range of -5%
- Significant increase on unemployment
- No more resources from government to incent economy after July

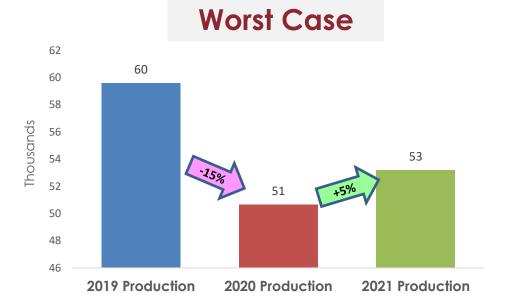
Power Systems Research Data · Forecasting · Solutions	WELCOME & INTRO	GLOBAL OVERVIEW	NORTH AMERICA	SOUTH AMERICA	EUROPE	APAC, INDIA, SE ASIA	Q&A AND CONTACTS

## **Agricultural Segment**

#### Current (Q1 2020 PSR)



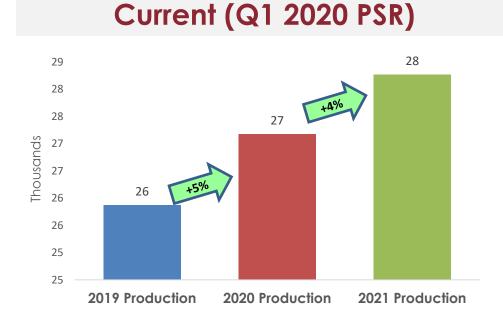
- 2019 was 16% lower than 2018
- Record grain crops expected for 2020: +4%
- Credit available at appropriate interest rate
- Agricultural activities keep working
- Low level of machines exports
- Agricultural commodities keeping current prices



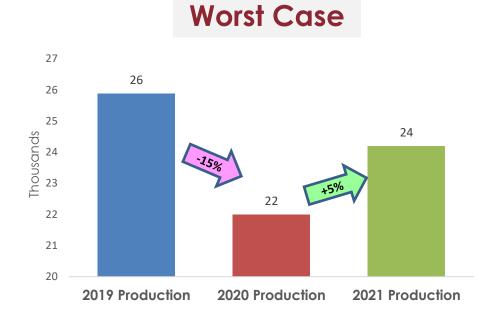
- Extended quarantine period
- Global recession impacting confidence on assuming credit
- Supply chain impacting normal production
- Timing to recovery production

Power Systems Research Data · Forecasting · Solutions	WELCOME & INTRO	GLOBAL OVERVIEW	NORTH AMERICA	SOUTH AMERICA	EUROPE	APAC, INDIA, SE ASIA	Q&A AND CONTACTS	
Construction Segment								

## construction segment



- Government Incentives for Construction
- Mining commodities keeping current prices
- Exports to South America countries due mining

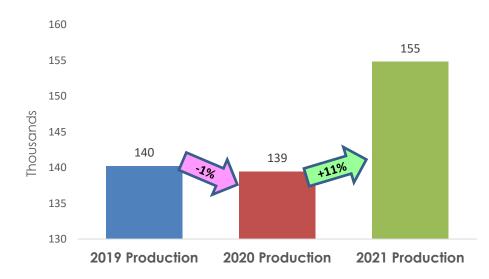


- Extended quarantine period
- Government facing difficulties to support incentives for Construction
- Global recession impacting confidence on assuming credit
- Timing to recovery production

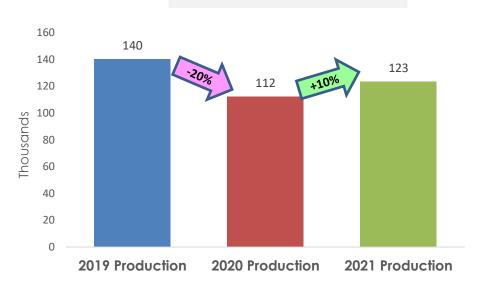
Power Systems Research Data · Forecasting · Solutions	WELCOME & INTRO	GLOBAL OVERVIEW	NORTH AMERICA	SOUTH AMERICA	EUROPE	APAC, INDIA, SE ASIA	Q&A AND CONTACTS

## **MHV Segment**

#### Current (Q1 2020 PSR)



- Trucks mainly supported by Construction and Agricultural segments
- Buses dropping 15%
- No restriction of truck transportation during quarantine



Worst Case

- Impact of potential reduction of Construction activities
- Extended quarantine period
- Global recession impacting confidence on assuming credit
- Timing to recovery production



/ELCOME	GLOBAL
& INTRO	OVERVIEW

w

NORTH AMERICA SOUTH

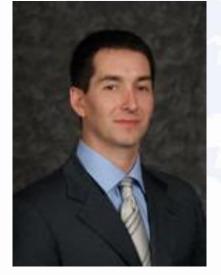
AMERICA

EUROPE

Q&A AND CONTACTS

APAC, INDIA,

SE ASIA



# **Europe Overview**

# **Emiliano Marzoli** Senior Business Development Manager-Europe



WELCOME	GLOBAL	NORTH	SOUTH	EUROPE	APAC, INDIA,	Q&A AND
& INTRO	OVERVIEW	AMERICA	AMERICA		SE ASIA	CONTACTS

## General situation updates on the virus in Europe

- Uncertainty is influencing both the lives of people and business operations. Implications change daily
- General economy has been negatively affected, with some countries already entering recession
- EU Finance ministers approved a €540B package, but has to be voted by the 27 member states
- Most of the countries have adopted a lock down
- Larger manufacturing countries stopped production and are preparing a reduced restart during second half of April
- Effect is dramatic, with confirmed cases and death quickly overtaking China



# Supply chain modifications impacting Medium & Heavy Vehicles and Off-Highway Equipment segments

- OEMs and suppliers are adapting to new countries directives and production has been shut down or reduced in several cases.
- Sales targets and revenue goals have been revised downward
- Many OEMs converted to production of medical appliances, like Ferrari, JCB, Daimler and others
- Switched all possible operations to Smart Working





WELCOME	GLOBAL	NORTH	SOUTH	EUROPE	APAC, INDIA,	Q&A AND
& INTRO	OVERVIEW	AMERICA	AMERICA		SE ASIA	CONTACTS

## Drivers and influences affecting final production volumes

- Governmental limitations
- Low consumption demand
- Poor supply chain
- Business shutdowns
- Companies closing or reducing salaries
- Travel limitations





#### Factors unique to Europe

- No unified front Each member state decides what they think is best
- Heavily quarantined. Many businesses and plants are closed. Uncertain restart date and working hours. Possible reduction of shift hours from 8 hours to 6 hours
- High social pressure to comply to safety enforced by law in many countries
- Healthcare system accessible to everyone, but under severe pressure



WELCOME	GLOBAL	NORTH	SOUTH	EUROPE	APAC, INDIA,
& INTRO	OVERVIEW	AMERICA	AMERICA		SE ASIA

Q&A AND CONTACTS

#### Estimate for 2020 production in key segments

Worst:

Restart Q42020 / early 2021

Heavy legal restrictions

Increased social distancing

Demand remains low





Restart this quarter/early next quarter

A mild recovery in 2021

Slight legal restrictions – shorter working hours

Demand gradually increases to expected levels



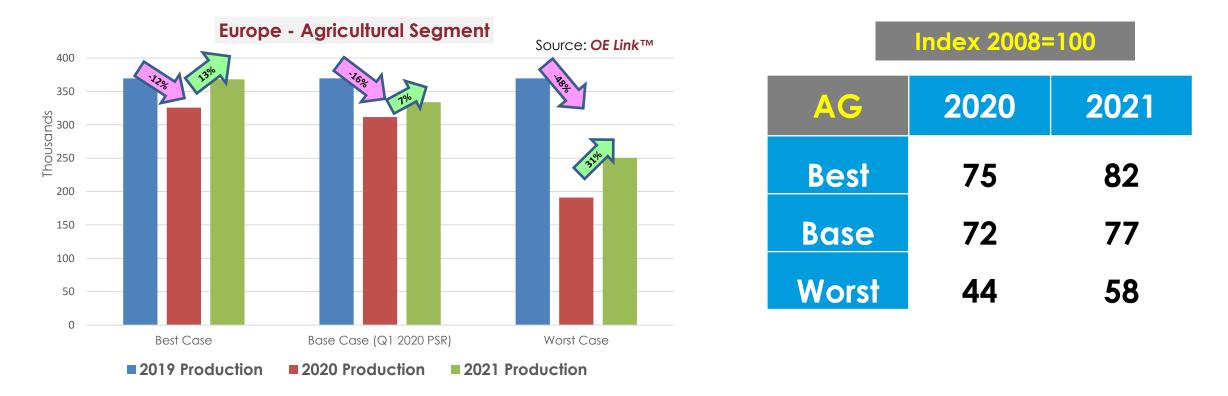
Restart within next few days/weeks

Good recovery through to 2021

Fewer restrictions on businesses and people

Demand rebounds fast to expected levels

Power Systems Research	WELCOME	GLOBAL	NORTH	SOUTH	EUROPE	APAC, INDIA,	Q&A AND
Data · Forecasting · Solutions	& INTRO	OVERVIEW	AMERICA	AMERICA		SE ASIA	CONTACTS

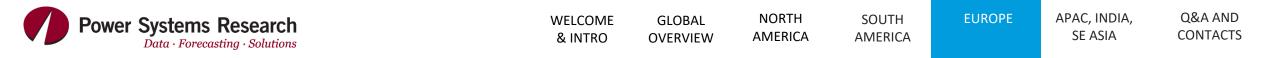


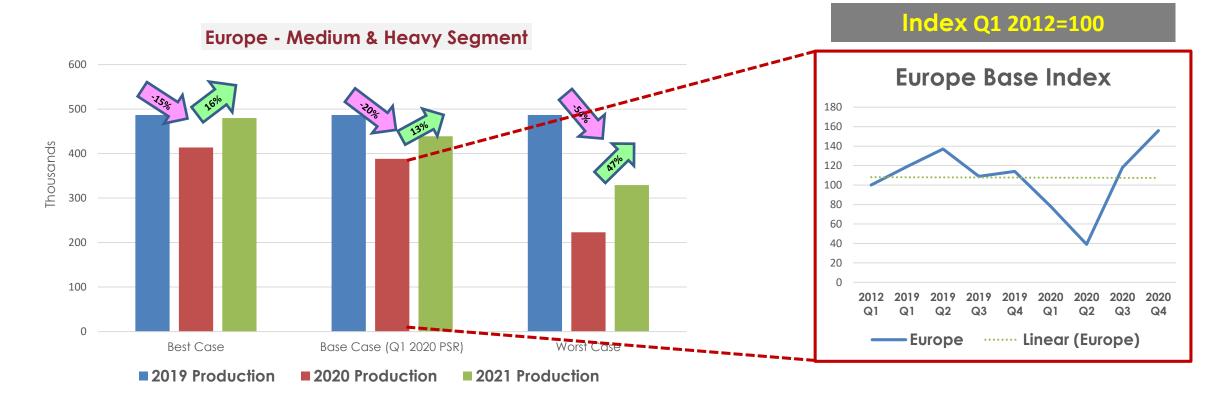
- Agriculture is continuing, which is a stimulus to restart production and services
- Worst Case Scenario, fluctuating commodity prices may impact spending contributing to lower production volumes than expected
- Best Case Scenario, rising commodities pricing and increased food consumption lead to new machinery purchases in 2021

Power Systems Research	WELCOME	GLOBAL	NORTH	SOUTH	EUROPE	APAC, INDIA,	Q&A AND
Data · Forecasting · Solutions	& INTRO	OVERVIEW	AMERICA	AMERICA		SE ASIA	CONTACTS



- Construction is going to be a key segment in the recovery process, as it will certainly be targeted by investments to stimulate the economy. Some production is scheduled to restart this week.
- Industrial segment will be very divided. Some applications like forklifts will continue to see growth at a higher rate than some of the other industrial products. We expect this segment overall to undergo a longer recovery than the Agricultural and Construction segment.





- Slowdown in demand for MHCV due to a softening in domestic and export markets prior to Covid-19
- Potential fallout from Brexit, unrest in France and concerns about the impact of tariffs had put negative pressure on the European market
- Production levels, primarily in Southern Europe, will be extremely weak in Q2 and Q3 of 2020



WELCOME	GLOBAL
& INTRO	OVERVIEW

NORTH SOUTH AMERICA AMERICA EUROPE

APAC, INDIA,

SE ASIA

Q&A AND CONTACTS



# China, Far East and SE Asia Overview

**Erik Martin** Director-Asia Region

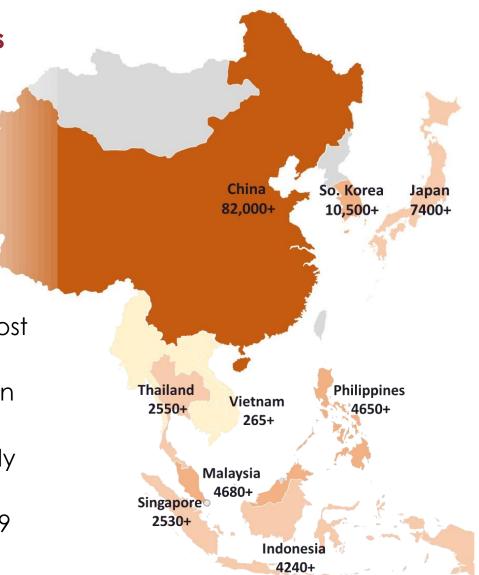


#### CHINA / FAR EAST / SE ASIA Estimated Production Scenarios

- **Realistic** Lockdown ends in April 2020
- Pessimistic Lockdown extends through May 2020
- Worst Case Lockdown extends beyond June 2020

#### CHINA / FAR EAST / SE ASIA Conditions

- CHINA Most workers back; 80% of factories operating; most not at full capacity.
- JAPAN State of emergency April 7. Most businesses remain open.
- SOUTH KOREA Lockdown not in place; businesses generally running; remote work rate high.
- SE ASIA Varying levels of lockdown by country; COVID-19 cases low.





SOUTH AMERICA APAC, INDIA, SE ASIA

EUROPE

Q&A AND CONTACTS

## CHINA – 2020 Impacts on Annual Production Volumes

- CNY & COVID-19 slowed JAN sales; market recovered quickly in MAR; positive sign for H2 recovery.
- Ag Tractors: Peak sales late Fall and Spring. Q1 2020 sharp decline. We expect Fall 2020 to be strong.
- Forklift: JAN key to meet demand around CNY. Q2 not normally a peak, but Q2 2020 sales expected to grow.
- **Excavators:** Sales down 23.5% in JAN; 60% in FEB. Market rebounded in MAR with sales of more than 49,000 units.
- **HD Trucks:** 2019 production 1.19 million units. HD OEMs predict 1.1 million units in 2020.

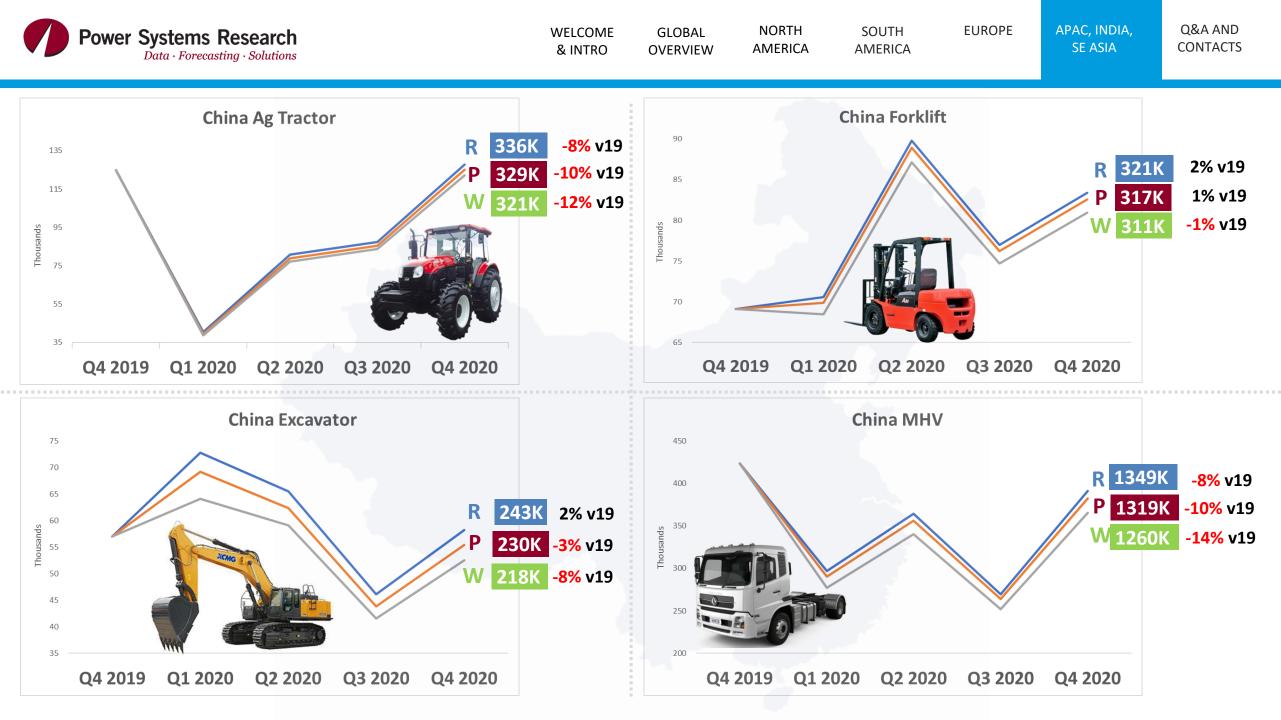






## CHINA – Off-Highway and MHV (HD) OEM and Supplier Comments

- Dongfeng: 2020 MHV production 200,000 units, slightly higher than 2019 (186K). HD Truck volume 120K.
- Tan Xuguang (Weichai Power, ShaanQi, CNHTC) expects 2020 HD Truck production to be 1.1 million units. 2 million China III trucks to be replaced with China VI trucks in 3 years. Government to loosen monetary policy and increase infrastructure investment.
- SANY long boom pump trucks, Volvo, Mercedes-Benz, Scania, Isuzu and Hino require imported chassis. Lack of European chassis production causing shortages.
- COVID-19 in Japan reduced exports of Japanese hydraulic components hampered several large construction OEMs. In turn, prices have risen.
- Domestic companies not yet able to replace imported parts.





Q&A AND

CONTACTS

#### JAPAN / SOUTH KOREA – Commentary on OEMs and Suppliers

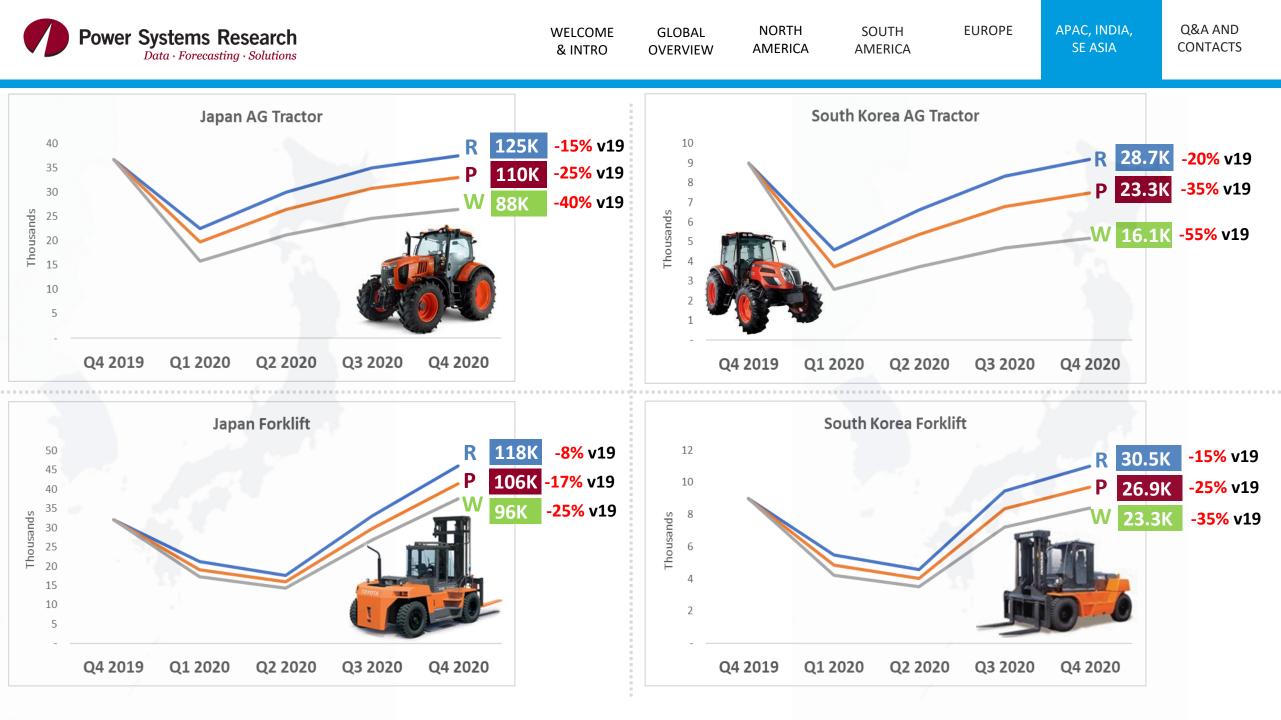
- COVID-19 has led OEMs to implement planned production cuts and work outages to address low demand and worker safety.
- OEMs have tried to reduce inventory and increase profits. This is difficult.
   Despite reduced production orders are expected to fall.
- China parts supply disruption in FEB and MAR temporarily impacted production. Fortunately, domestic suppliers were secured and production in China has since been restored.
- Japanese and Korean parts manufacturers are trying to increase sourcing from domestic sources to reduce reliance on China, but higher domestic material costs are hindering this process.

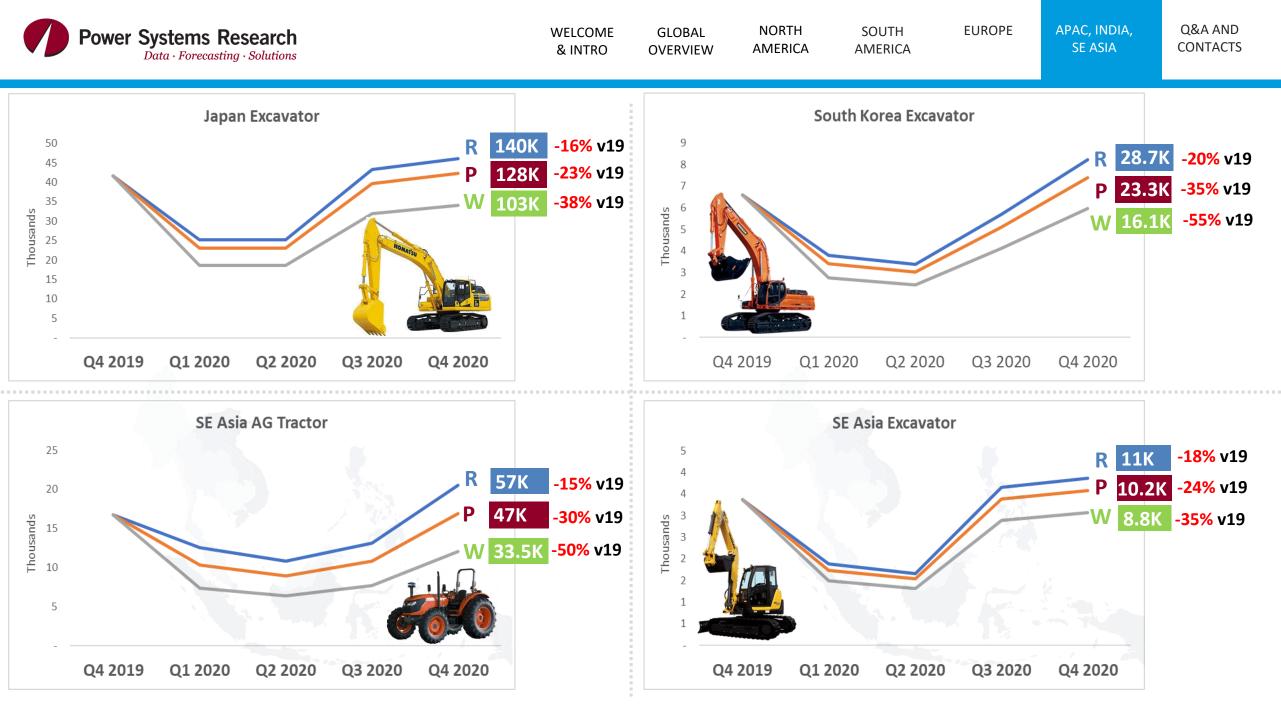


Q&A AND

#### JAPAN / SOUTH KOREA / SE ASIA – 2020 Production Volumes

- Japan OEMs with production bases overseas supply parts to Japan and locally. Overseas sales account for a majority of many OEM's income. So, any decline in global demand will greatly impact their bottom line.
- South Korea OEMs are heavily dependent on exports, so any decline in overseas demand will impact firms there immediately.
- Southeast Asia Plant closure impact will become clearer in the coming months. Production decline in Thailand and Indonesia will be strongly reflected in exports to neighboring countries. Thailand is a manufacturing and logistics hub in Southeast Asia, and if Thailand fails to maintain those capabilities, the impact will be felt across SE Asia.







WELCOME	GLOBAL	NORTH	SOUTH	EUROPE	APAC, INDIA,
& INTRO	OVERVIEW	AMERICA	AMERICA		SE ASIA

Q&A AND

CONTACTS



# **India Overview**

# Jinal Shah Regional Director-South Asia Operations

\*Analysis is done based on the situation as on 14th April 2020. Analysis and forecasts could be subject to change during rapidly changing external environment



WELCOME GLOBAL & INTRO OVERVIEW NORTH AMERICA SOUTH AMERICA

EUROPE

APAC, INDIA, SE ASIA Q&A AND CONTACTS

#### COVID-19 Impact On India: U or L-shaped Recovery expected

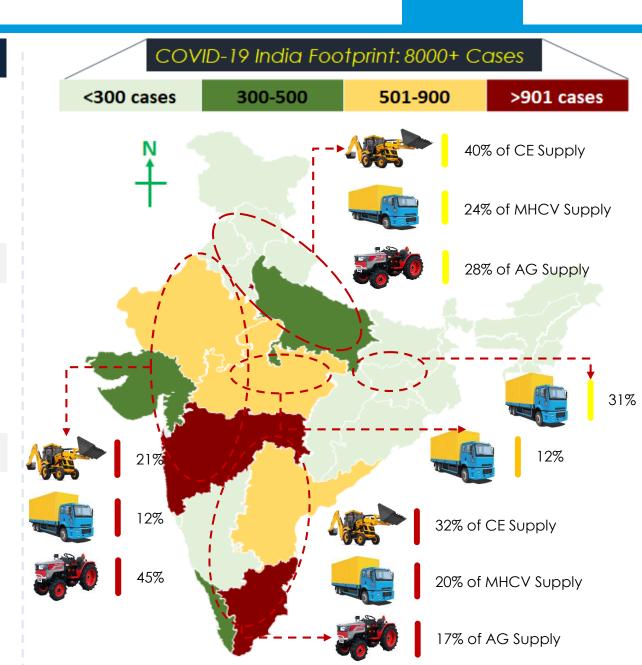
- Uncertainty about the duration and depth of the crisis = policy paralysis
- Bend in trends across sectors; focus on safety & health over business
- Further shrinkage of GDP
- Wave of bankruptcy, job losses, eroding capital of lenders

#### **Demand Side Impact**

- Steep fall in non-essential goods/services and infrastructure
- Slump in demand to continue longer, component exports to NA&EU to take a hit
- Lockdown restrictions to impact inbound logistics

#### Supply Chain Impact

- Factory shutdowns: financial stress → increasing debt → job losses → lower/no capex in short-term
- Adverse impact domestic on inbound & outbound supply, imports of electronic components
- Availability of contract labor post lockdown / gradual opening



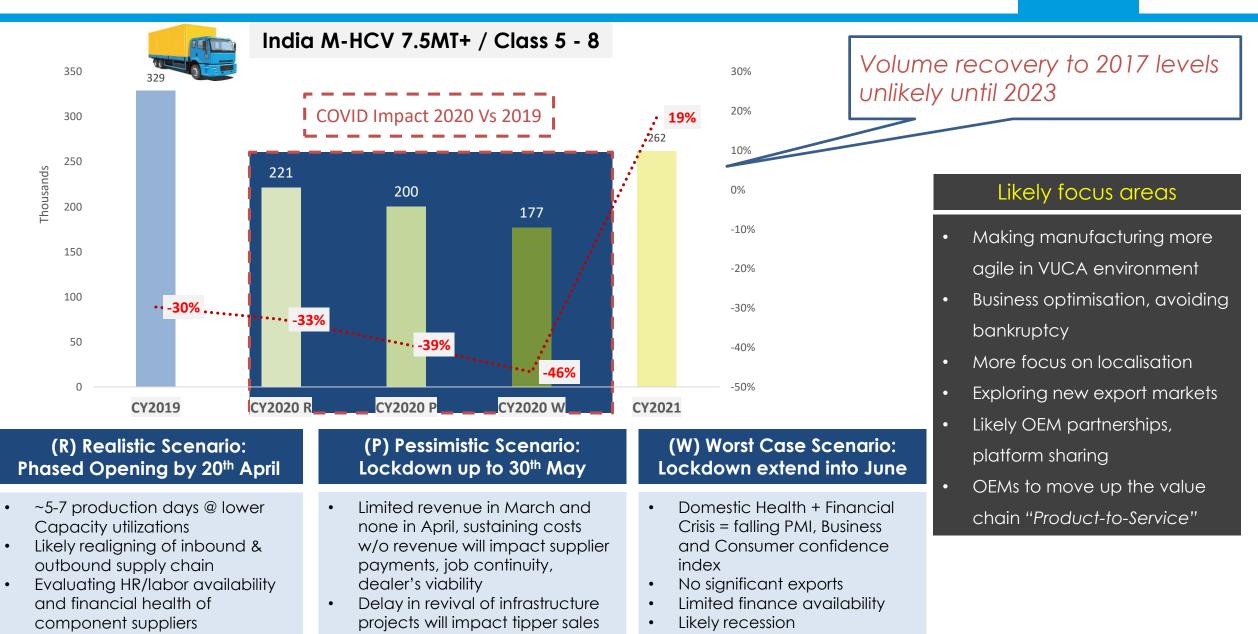


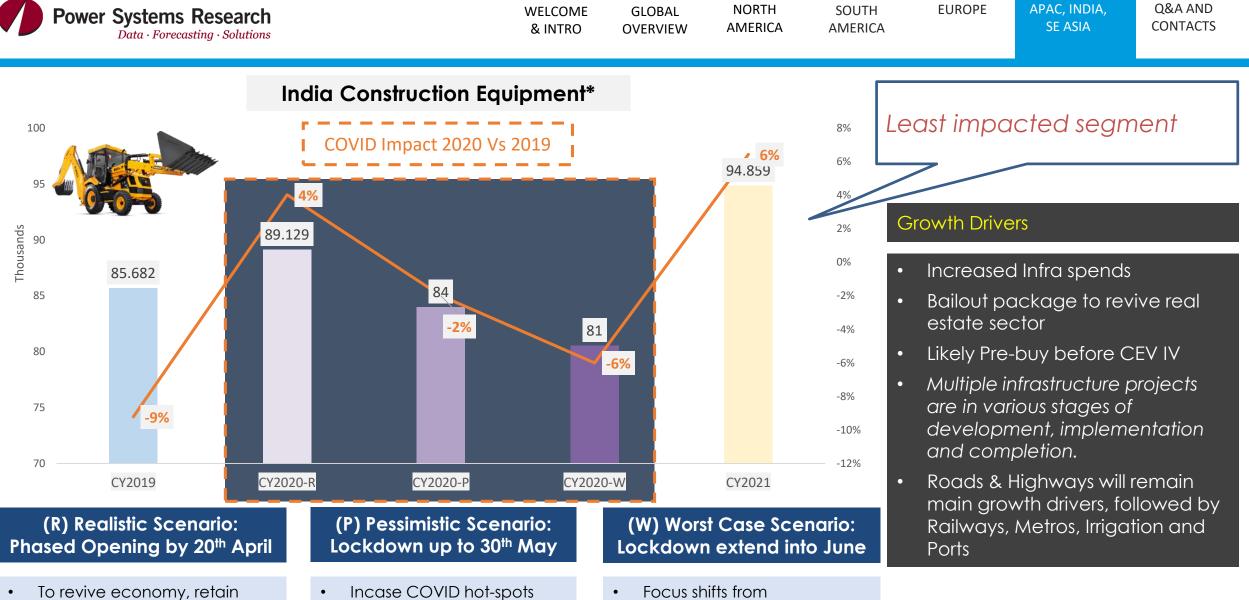
WELCOME	GLOBAL	NORTH
& INTRO	OVERVIEW	AMERICA

SOUTH AMERICA EUROPE

APAC, INDIA,

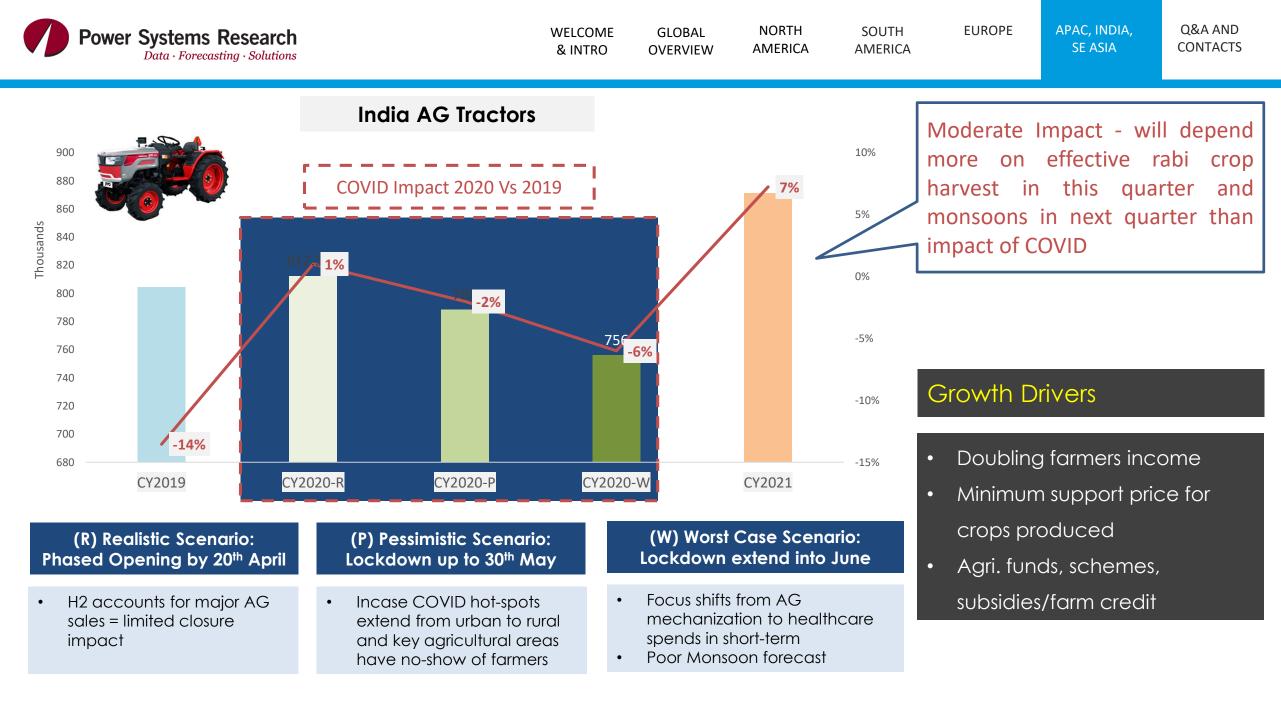
SE ASIA





- To revive economy, retain contract labor, avoid/limit force majeure infrastructure projects likely to revive
- Incase COVID hot-spots and key infrastructure projects coincide with same state/city of continued lock-down
- Focus shifts from infrastructure to healthcare spends in short-term
- Likely recession

\*Excludes Cranes in calculation





#### India Summary: The Silver Lining...

- India likely to avoid recession in 2020 (assuming no second wave of COVID)
- Sustainable growth for foreseeable future in off-road equipment: Under-Developed, Under-Penetrated Infrastructure and Agricultural Mechanisation coupled with Govt. focus on infrastructure and farm mechanisation
- MHCV recovery to 2017 levels unlikely for 4-5 years owing to slower GDP growth, falling freight rates and fleet utilisation levels, high base effect of 2018, excess capacity created due to axle load norms along with competition from upcoming dedicated freight corridor
- India uniquely positioned to attract investments in current situation when most of the world is looking for alternative manufacturing locations and growing domestic demand.



WELCOME	GLC
& INTRO	OVEF

NORTH OBAL RVIEW AMERICA

SOUTH AMERICA EUROPE

APAC, INDIA,

SE ASIA

Q&A AND CONTACTS

# **Questions & Answers**



### **Power Systems Research** – Global Offices and Affiliates\*

**Power Systems Research, Inc.** World Headquarters St. Paul, MN USA info@powersys.com

Power Systems Research, Inc. Detroit Regional Office Ann Arbor, MI USA infode@powersys.com

**Power Systems Research\*** Campinas, BRAZIL infosa@powersys.com Power Systems Research SA European Headquarters Brussels, BELGIUM infobr@powersys.com

Power Systems Research (Beijing) Co., Ltd. Beijing, CHINA infocn@powersys.com

PSR Power Systems Research India Pvt. Ltd. Pune, INDIA infoin@powersys.com **Power Systems Research** 

Far East / SE Asia Research Tokyo, JAPAN infojp@powersys.com

**Power Systems Research\*** Moscow, RUSSIA inforu@powersys.com

www.powersys.com

**Tohan Research, Inc.\*** Tokyo, JAPAN infojp@powersys.com