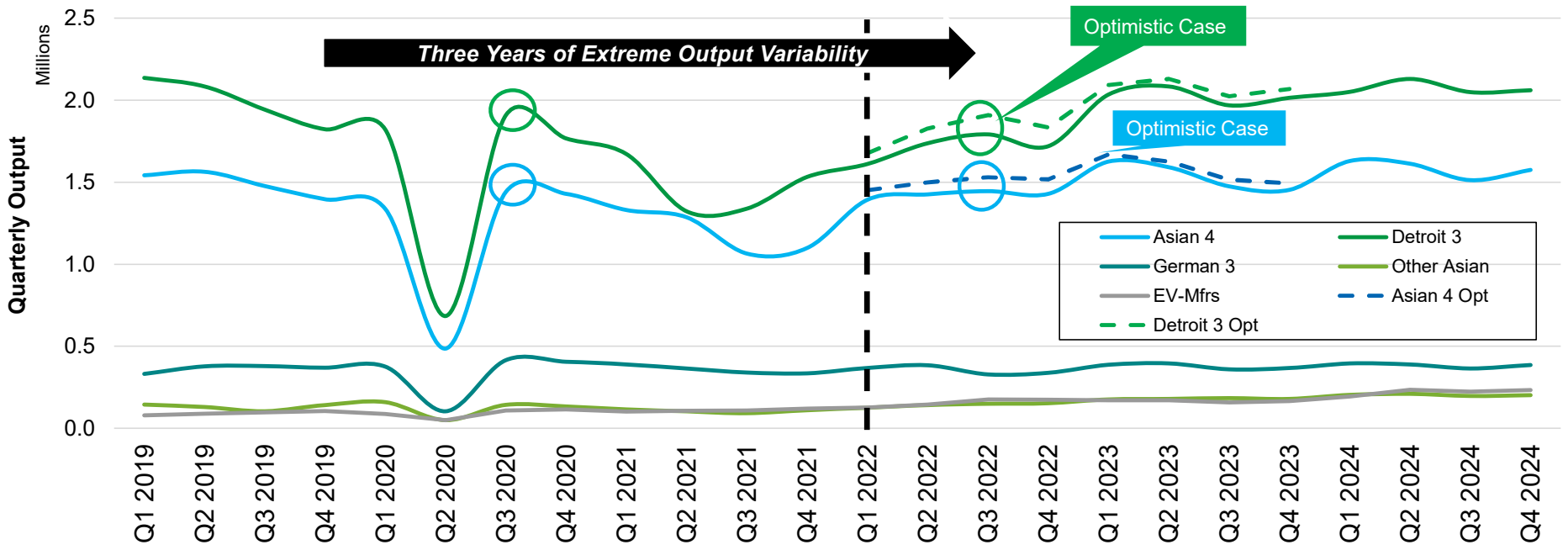
North America Production Volume by Quarter

3Q2021 may be the low point though 2022 is highly variable from a ‘pace’ perspective

North American Production – Volume by OEM Grouping



Source: IHS Markit

Production Outlook: North America – NA Regional Shift

Segment & OEM Shifts Pressure Logistics and Supply Structures

- Mix towards D/E-segment and Full Frame
- Detroit 3 still account for +55% of MW/ONT volume by 2028

- Remarkable stability – newer facilities w/export focus
- Higher concentration on BEV structures

- Rising principally with Tesla in CA & Texas
- Electrified propulsion allows for new supplier ecosystems

- Mid-Mexico has accounts for ~70% of Mex volume
- Rise of C-segment products with increasing luxury and export focus

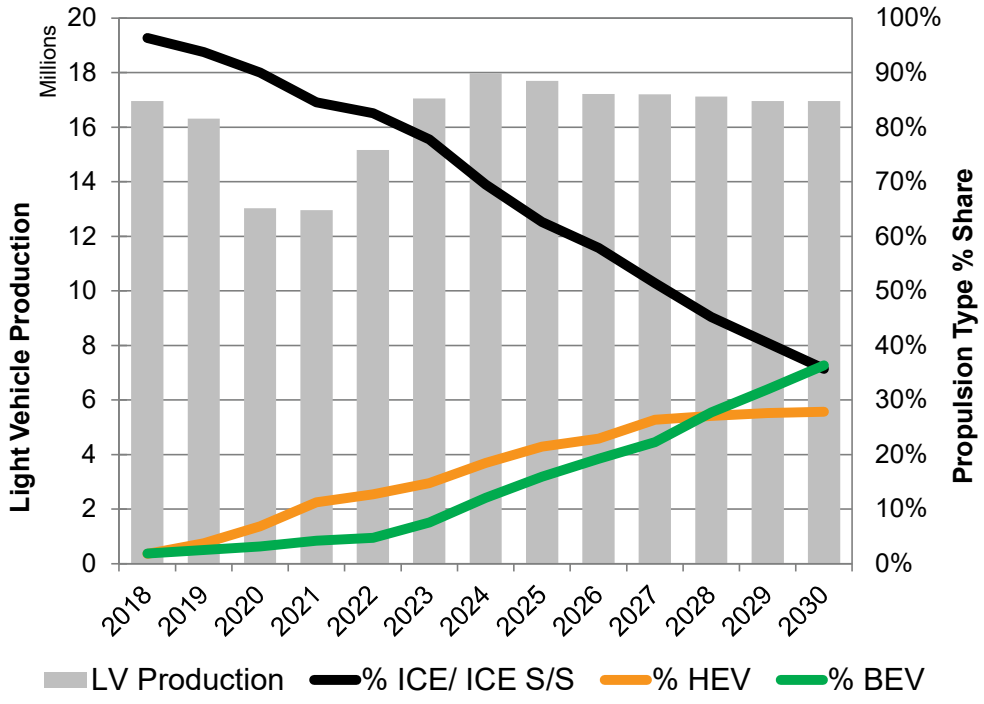
North American Production Overview

BEV share increased on stimulus effects, product availability, hybrid timeline and preference

- Vehicles with internal combustion engines to decline to 64% of total volume by 2030 – a decline of ~ -5% CAGR from 2022 to 2030
- In this analysis, Hybrid Electric Vehicle (HEV) will refer to all forms of electric-assisted propulsion systems though still have an ICE engine present.
  - **Mild-Hybrid Electric Vehicle (MHEV)**
  - **Full-Hybrid Electric Vehicle (FHEV)**
  - **Plug-In Hybrid Electric Vehicle (PHEV)**

  } **HEV**
- Hybrid volume levels out by 2027 as BEV alternatives rise thereafter.
- BEV propulsion growth rises to ~6.2 mil units by 2030 , 36% or a CAGR of 29% from 2022 to 2030.
- In the US, the rise in BEV is more precipitous (due to segment dynamics) – rising to 41% by 2030 – a CAGR rise of 27% per annum through 2030. Conversely, ICE installations will decline 5.6% per annum through 2030.

NA LV Production 2018-2030, Share by Propulsion Type



Note 1: Fuel-cell propulsion removed from analysis due to very low volumes: current and forecast.
Source: IHS Markit Nov 2021

BEV-Only After 2035?

Two More ICE Development Cycles - Finite, Restricted and Riskier

Suppliers need to work backwards to efficiently invest in Multi-Energy Platforms. Only two cycles to amortize major investments, new facilities, ICE innovations.