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Bain outlook on Automotive industry dynamics 2023/24: Impact of "Hurricane" scenario on OEMs and suppliers

Executive Version

December 2022 / January 2023

In 2023/24 **OEMs and suppliers will likely step into a "Hurricane"** scenario

- Global auto market **dropped due to Covid-19 to 77M units in 2020** (-14% vs. 90M in 2019), only slightly **re-bounding to 80M in 2021**. **Supply shortages** and **supply chain challenges** are still restricting volume to **ca. 80M in 2022**
- Despite the volume drop, the **industry-wide supply shortage** results in a **record OEM profitability in 2021/22**, as OEMs focused on most profitable models and increased prices: **OEM average margin of 8.6%, up ca. 3%p** vs. 2010-19
- As **suppliers** can forward only **part of their cost increase** (energy, material, etc.) **to OEMs**, they already face a **"Perfect Storm" scenario** with **supplier average margin dropping to 5.3% in 2021/22, down ca. 2%p** vs. 2010-19
- In **2023/24, the situation for OEMs will flip:** Chip supply will be relieved by mid 2023, while **customer sentiment and willingness to buy expected to drop** given **economic slowdown/ recession**, high energy cost, inflation, etc.
- **Scenarios for industry-wide** volume/ price development depend on external factors such as GDP, energy cost, inflation, etc. but also on the specific **behavior of key OEMs** and to which extent the **current price umbrella can be secured**
- Most likely, the **industry will step into a "Hurricane" scenario** with industry-wide **OEM profit margins collapsing to 4-6%** in 2023/24 (volume OEMs will be impacted most, with less impact of premium and luxury OEMs), risk of backsliding into former **"supply push" patterns**, deteriorating transaction prices with **increasing discounts to defend market shares**. Significant **further cost reduction and transformational efforts** required for OEMs to increase resilience of their business models
- In this "Hurricane" scenario the **pressure on suppliers will further increase**, deteriorating suppliers' average margins to **3-5%** in 2023/24; increasing number of suppliers will face **liquidity challenges**, increasing the **need for transformational and restructuring actions** and selective OEM support to prevent insolvencies of system-critical suppliers

Immediate initiation/ expansion of transformational actions needed for both OEM and suppliers

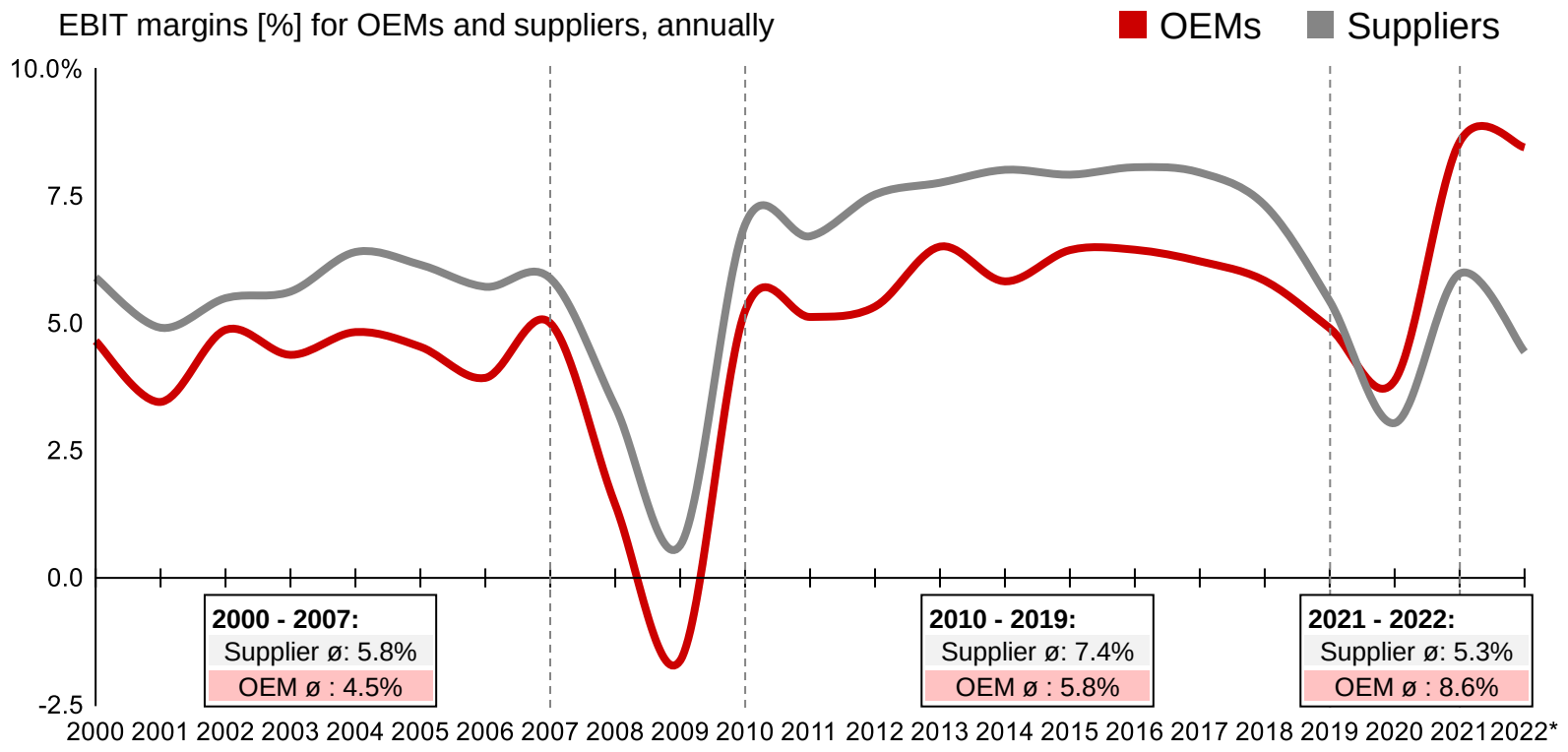
After exceptional 2021/22 with Covid and supply constraints, the **industry will likely get into a "Hurricane" scenario** driven by supply rebound in economic slowdown

	Traditional auto industry (2010-2019)	**Covid and aftermath** (2021/22)	**Economic slowdown** (2023/24)
Supply	Capacity expanded ahead of demand: Structural over-supply in the industry e.g., in Europe 24% (4 M units)	Supply break-down due to supply-chain issues, supply shortage (chips), etc.	Supply shortage expected to fade early/ mid 2023
Demand	Global growth industry with unit growth of 2.4% p.a. 2010-2019, while Europe and North America have peaked already	Break-down of demand in 2020, but quick re-bound in 2021/22	Economic slowdown/ recession negatively impacting customer sentiment and willingness to buy
Price level	"Supply push" industry: Aggressive use of discounts to drive volume and capacity utilization results in "race to the bottom"	Entire industry increased avg. selling prices (better mix, higher prices), building price umbrella with strict pricing discipline	Price/ discount measures of OEMs to push plant utilization likely start a price downward spiral in the industry
Cost level	Ongoing cost reductions, but strict cost discipline varying by OEMs	Increasing cost for energy, material, etc., not fully compensated by cost reduction; often no massive structural measures	While some cost positions (e.g., personnel) will further increase, strict cost reduction measures required to reduce total cost and improve resilience
OEM margin (industry average)	**5.8%** ***"Supply push"***	**8.6%** ***"Demand pull"***	**avg. 4-6%** ***"Hurricane"***
Supplier margin (industry average)	**7.4%** ***"Steady-state"***	**5.3%** ***"Perfect storm"***	***avg. 3-5%*** ***"Hurricane"***

High spread across:
- *Volume: −2 to +4%*
- *Premium: +6 to +12%*

The **pandemic reversed the long-lasting industry dynamics** in favor of OEMs

Historical EBIT Margins



Sales (index-ed)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
	85	85	84	78	82	84	83	99	99	79	100	109	116	112	121	137	141	141	151	153	126	152
	61	63	62	60	65	75	76	84	92	71	100	119	123	120	132	155	163	163	177	180	151	173

CAGR (2010 - 2019): Supplier ø: 6.8% OEM ø : 4.8%

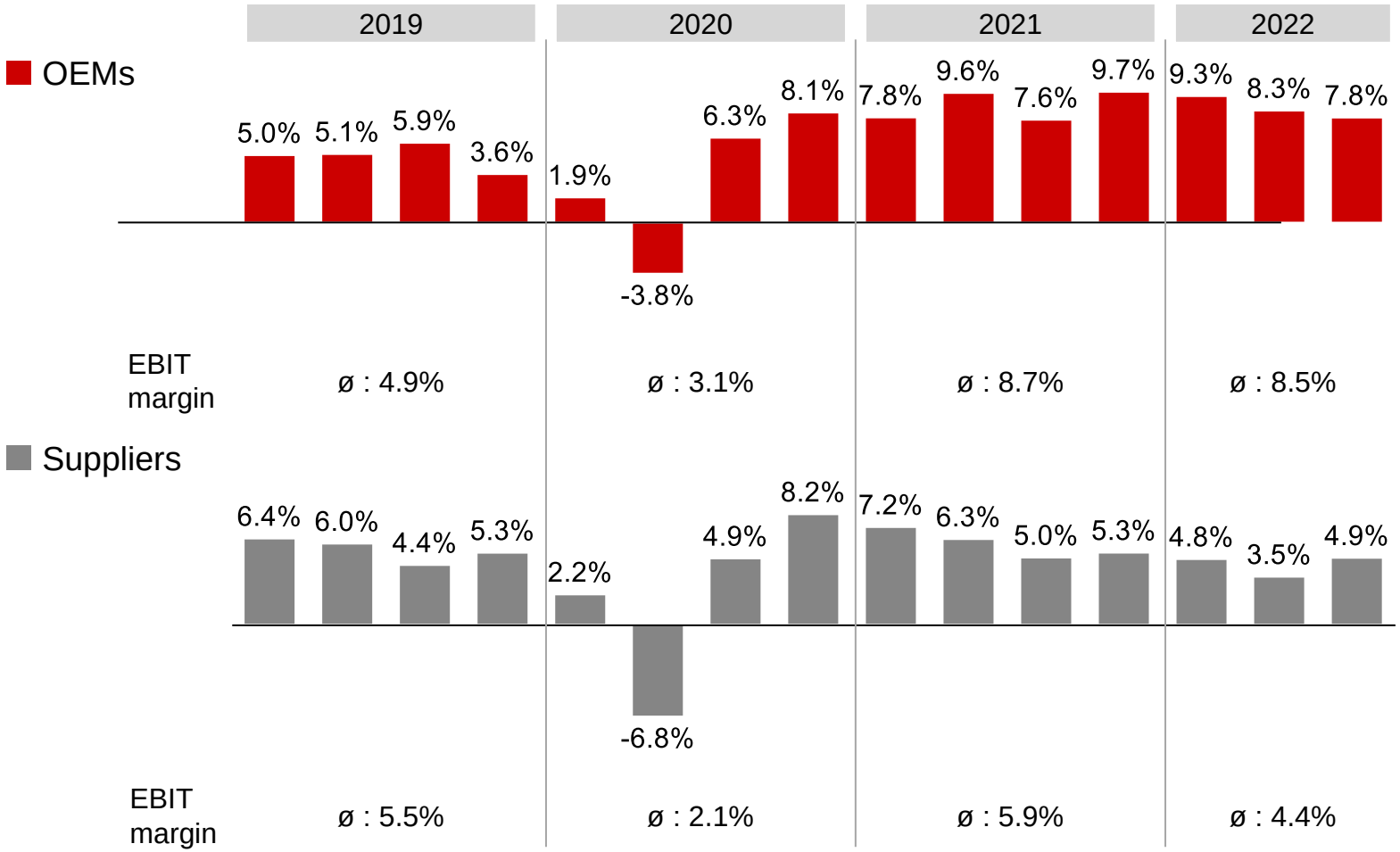
Comments

- **Suppliers' average margin traditionally ca. 1-2%p higher than OEMs'** average margin over two decades from 2000-2019
- **Suppliers'** margin **peaked in 2015-2017 at ca. 8%** with value-add shift from OEMs to suppliers
- In **Covid-year 2020, supplier average margin** for the **first time over two decades below OEMs average margin**
- Gap even **further widening in 2021/22** with **OEM average on record level**, while **suppliers' lowest since 2008/09 crisis**

Note: Revenues and EBIT indexed to 2010 using historical FX rates; OEMs: N=15; Suppliers: N=30;*) Preliminary 2022 including Q1-Q3 financials – Q3 OEMs N=12; Suppliers N=23; Source: S&P Capital IQ

OEM average with strong 8.5% margin in Q1- Q3 2022, while suppliers' average eroded to just 4.4%

EBIT margins [%] for OEMs and suppliers, quarterly



Take-aways

- With massive supply shortage in 2021 and 2022 (Covid-19, chips, Ukraine, …) **OEMs achieved 3%p higher margins than suppliers** due to richer product mix, reduced end customer discounts, etc.
- **Suppliers suffer from higher material cost, energy cost, etc.** that they can only partially forward to OEMs
- Increasing **number of suppliers face liquidity challenges** that will likely require **special support** in in order to prevent insolvency, also from OEMs

Note: Revenues and EBIT indexed to Q1/2019 using historical FX rates; quarters refer to calendar years; OEMs: N=15; Suppliers: N=30; 2022 Q3 normalized based on OEMs N=12, Suppliers N=23
Source: S&P Capital IQ

Different **scenarios for industry dynamics** in 2023/24: **Most likely OEMs and suppliers will step into the "Hurricane" scenario**

	Storm	Hurricane	Tsunami
Economic development	Economic slowdown with potential short recession (EU and potentially USA) impacts customer sentiment/ willingness to buy until quicker bounce-back in 2024	Economic slowdown and recession (EU and potentially USA) negatively impacts customer sentiment/ willingness to buy	Broader global economic downturn incl. recessions and further exceptional events (e.g., Taiwan) hit customer sentiment/ willingness to buy hard
Competitive and supply chain dynamics	With fading supply shortages in early/ mid 2023, premium mix shift recedes; OEMs keep up better pricing discipline than before Covid times	With fading supply shortages in 2023, premium mix shift recedes, and leading OEMs discount prices to push volumes and improve market share	With fading supply shortages in 2023, OEMs slide into “supply push“/ "race to the bottom" principles, starting downward price spiral to defend market shares
Cost dynamics	After historical peak in 2022, material/ energy cost pressure marginally declines, while personnel/ other cost pressure further increases in 2023/24	After historical peak in 2022, material/ energy cost pressure marginally declines, while personnel/ other cost pressure further increases in 2023/24	Material/ energy cost pressure remains close to historical peak in 2022 and is further intensified by escalating pressure on personnel/ other cost in 2023/24
OEM industry margin 2023/24	**6 to 7%**	**4 to 6%** ← *High spread across:* • *Volume: −2 to +4%* • *Premium: +6 to +12%*	**0 to 4%**
	Unlikely (< 20%)	***Likely (> 50%)***	*Possible (20-30%)*

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