



# **RI's Automotive Industry amidst the Global Pandemic**

**Kiki Verico, Ph.D. , LPEM FEB UI**

August, 18<sup>th</sup> 2022, Jakarta

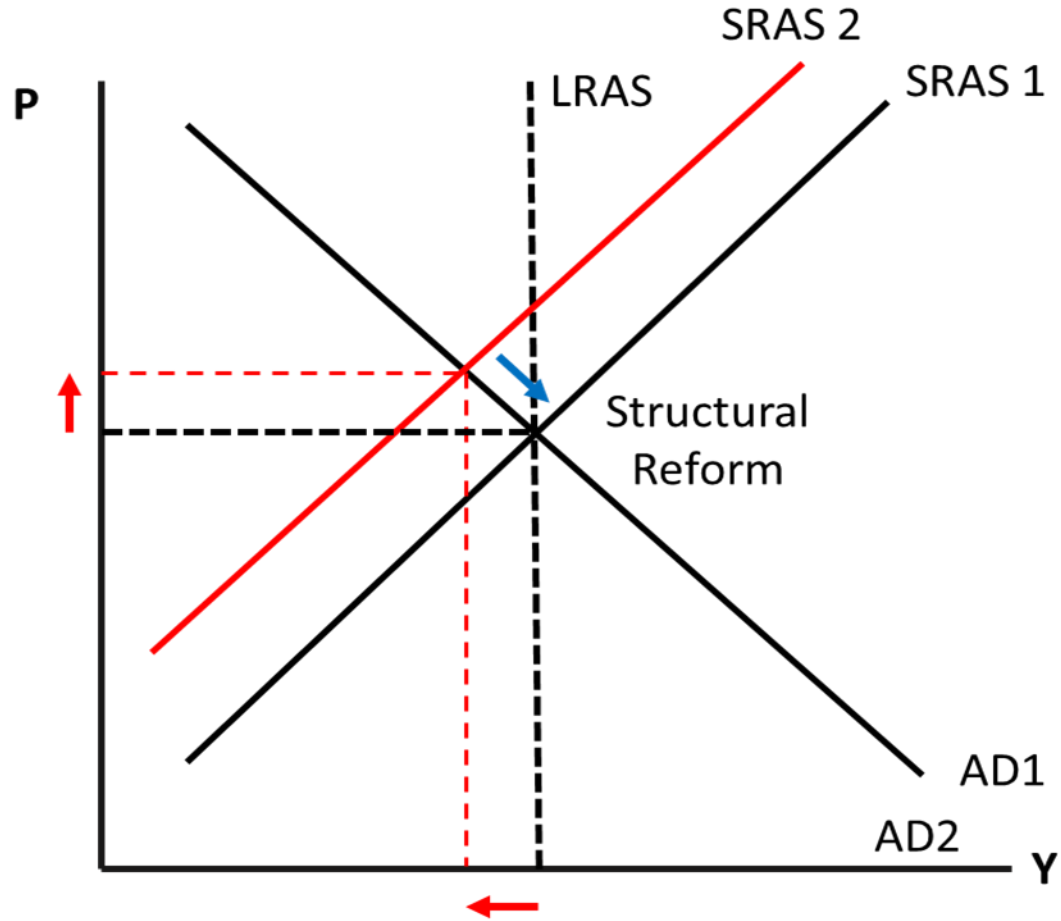
# AUTOMOTIVE INDUSTRY IN INDONESIA: A MACRO VIEW

## Contents:

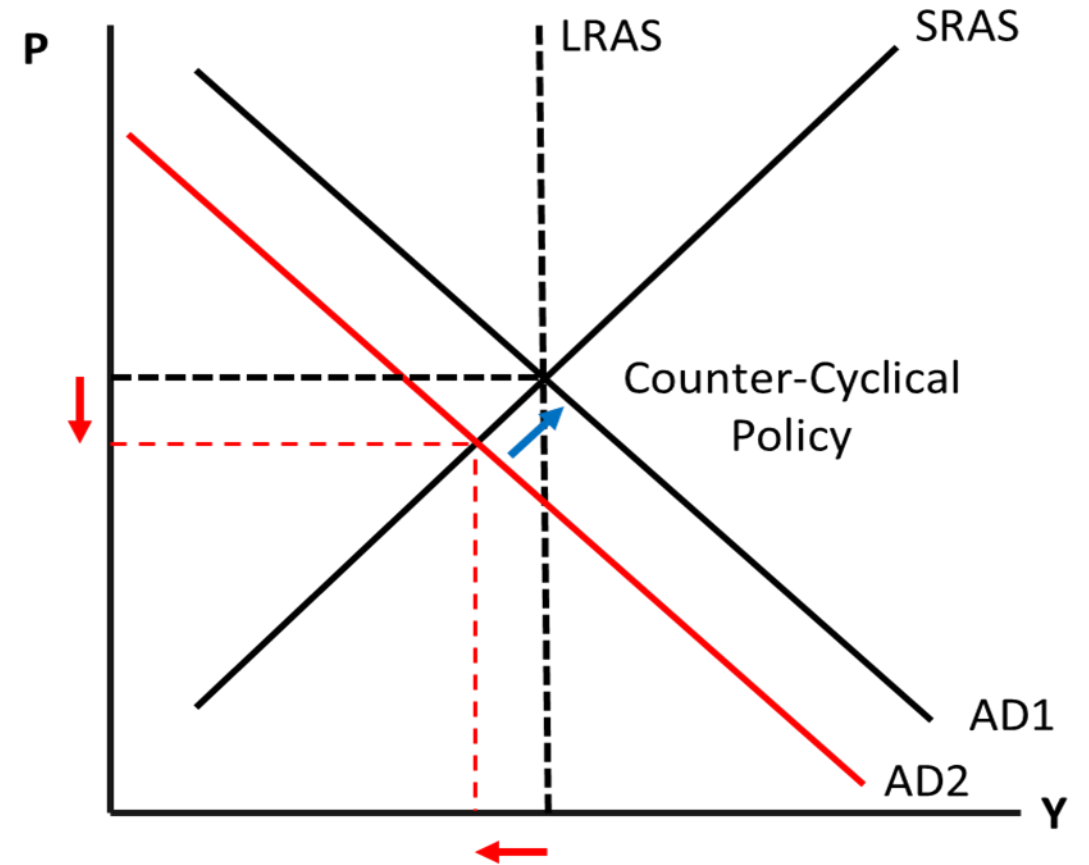
1. Aggregate Demand dropped/Liquidity Trap, Household Consumption declined, Automotive got hard hit, Fiscal Countercyclical and Manufacturing picked up since 3Q21 dan 1Q22
2. Aggregate Demand with Household Consumption start to recover in 2Q22
3. Economy starts to a stable level with above five percent annually in 2022 and outcomes (GDP/Cap, GR, PR, G&Inf/OG, OU) returned Pre-Pandemic Level
4. Keeping inflation rate manageable
5. Long-Run Vision: Forward to Backward Participation Note; Sector Formalization Impacts; Domestic & Bilateral Potentials with Headquarters



1963 and 1998



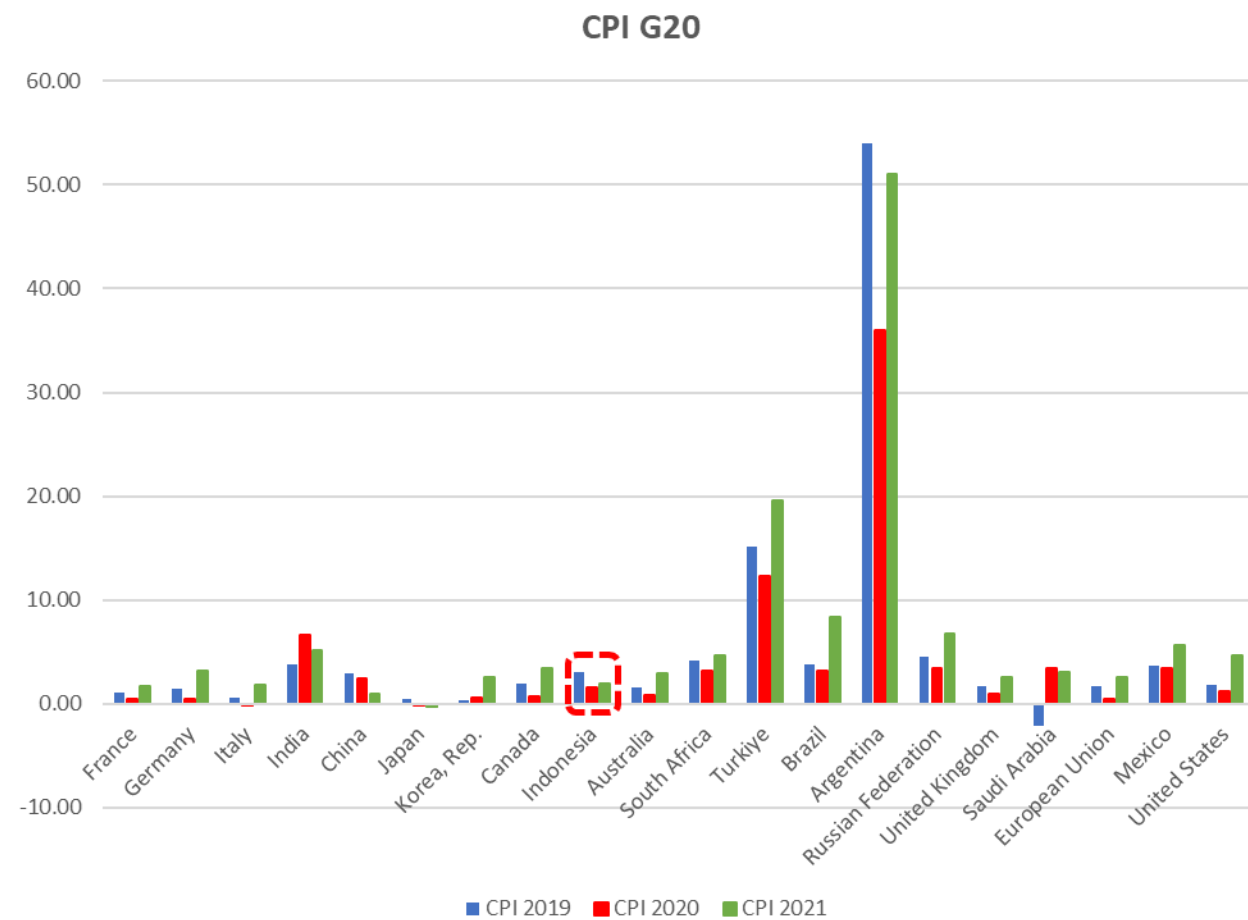
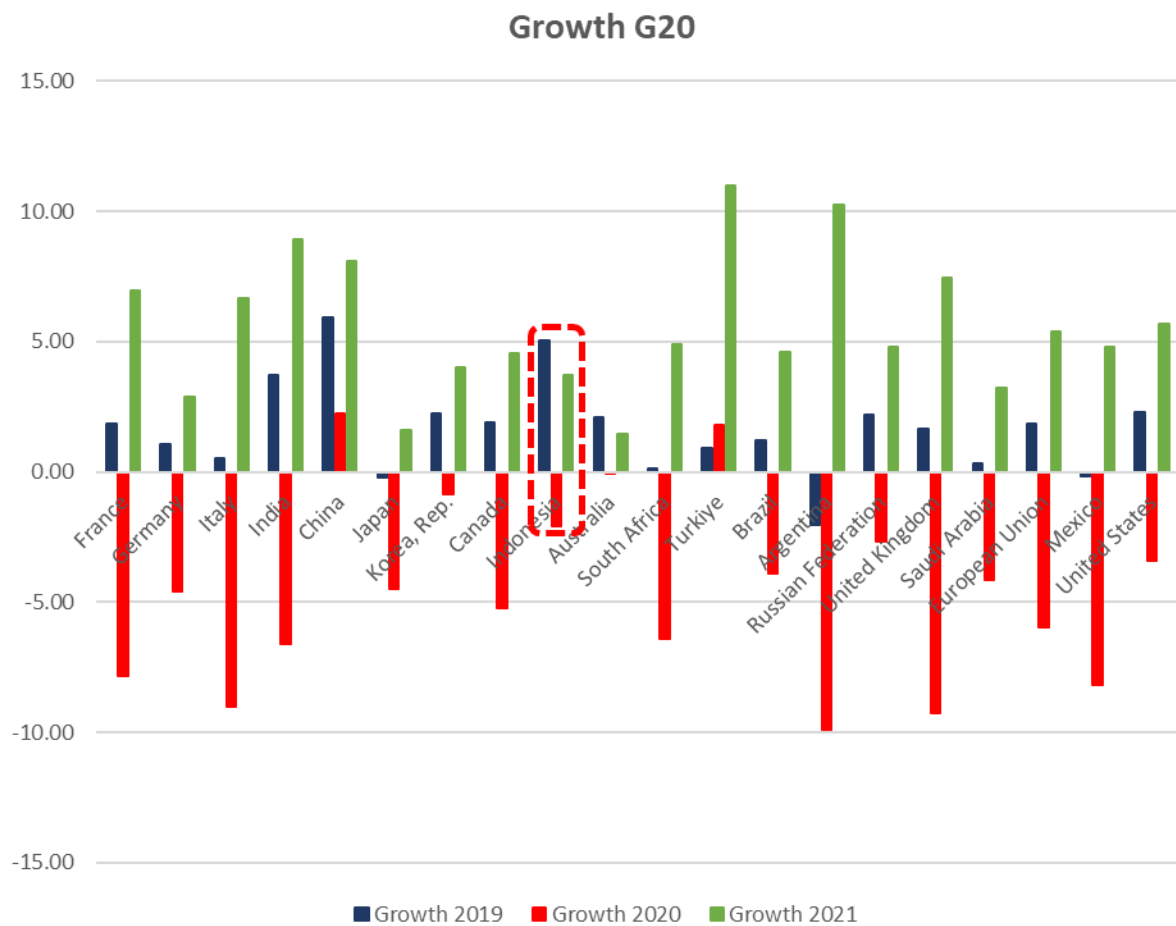
2020



$$AD = C + I + G + CA(X - M)$$

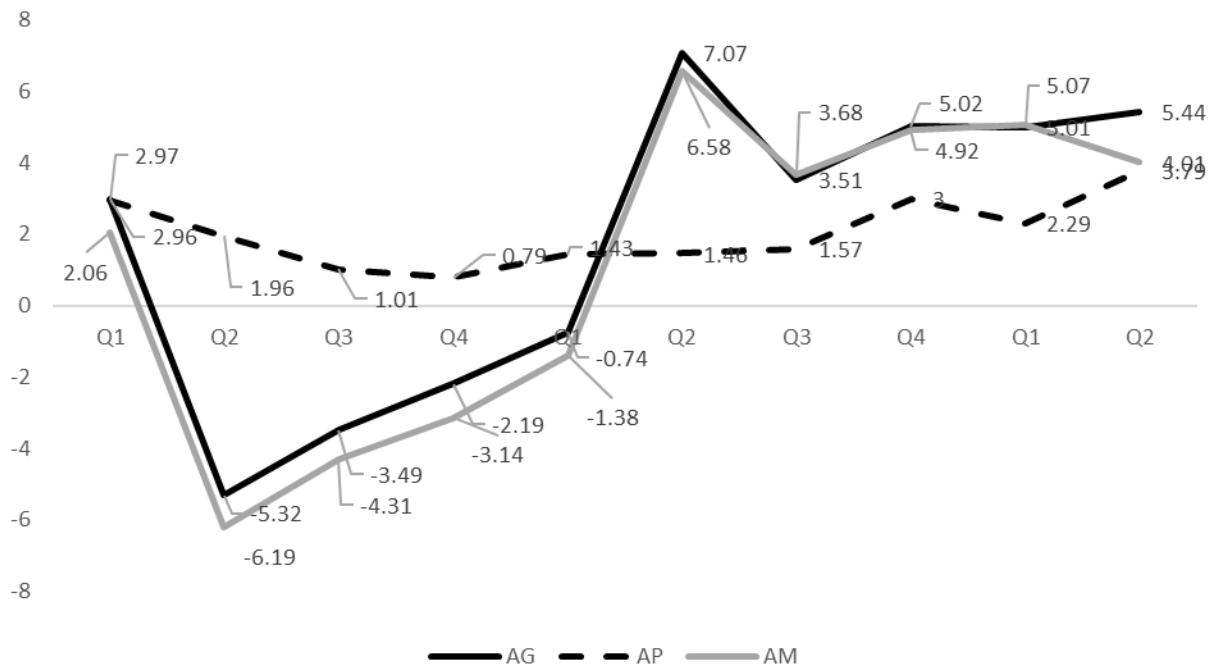
$$M/P = LM \rightarrow St \rightarrow IS(i, Y) \rightarrow AD \text{ Liquidity Trap}$$

$$W/P \rightarrow dL \rightarrow Dy \rightarrow SRAS$$

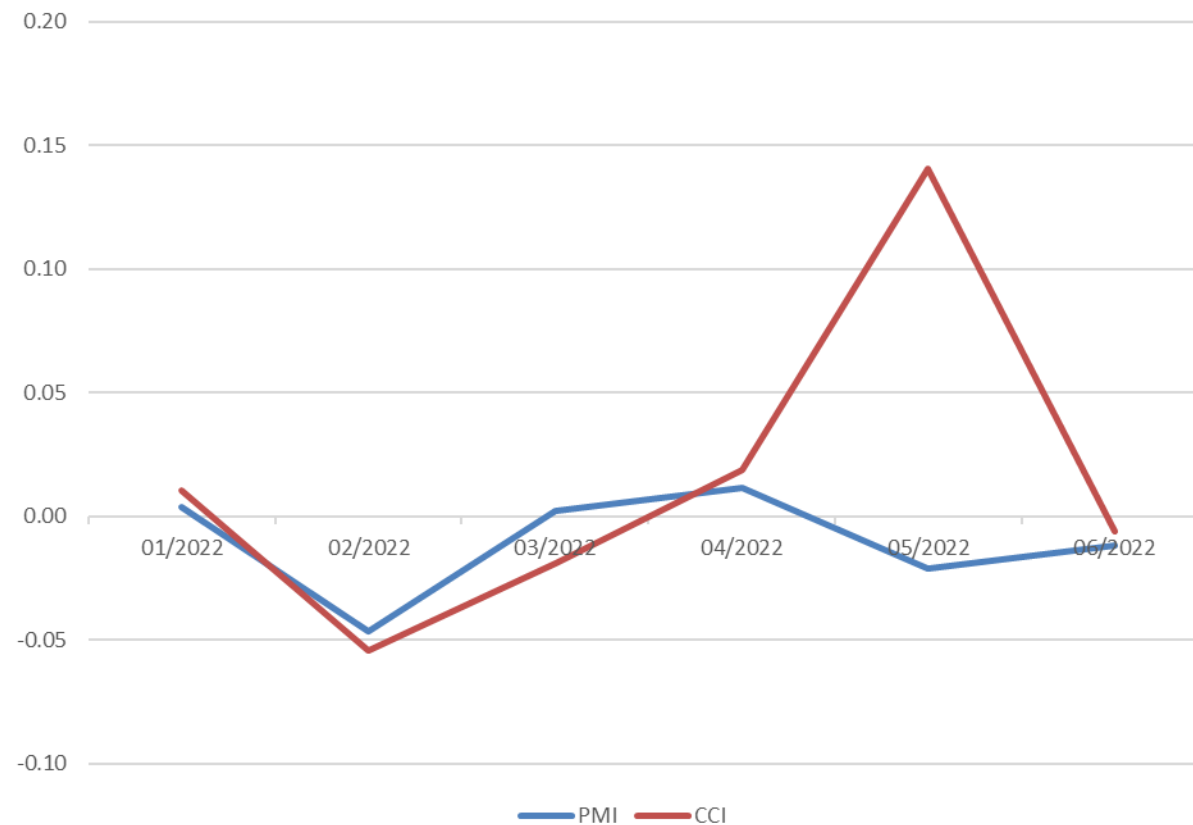


Source: Own calculation based on WDI WB Data, 2022

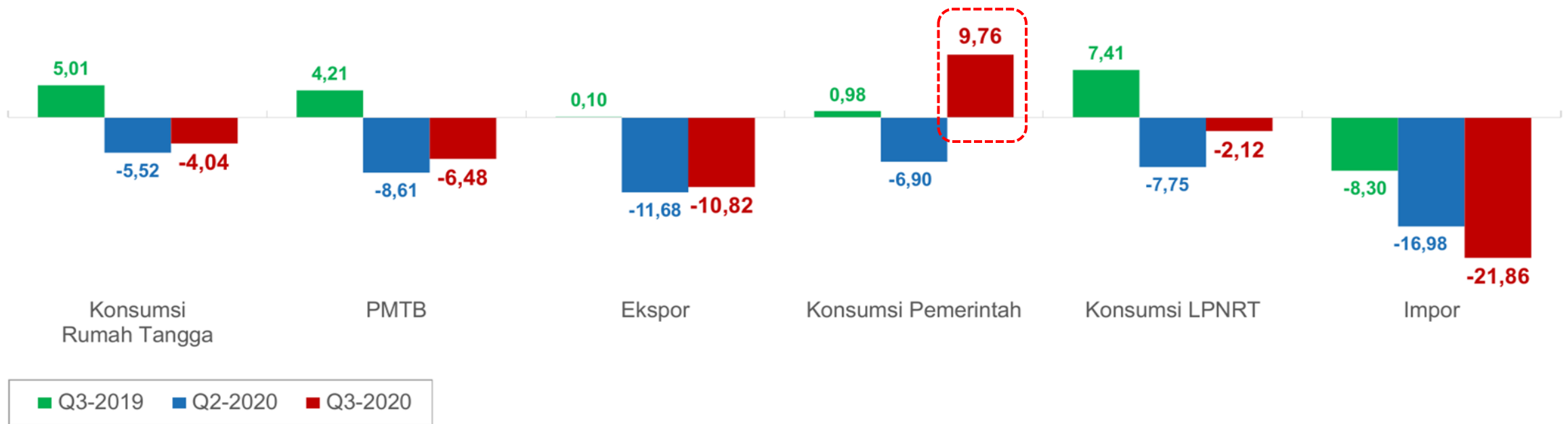
Growth and CPI yoy 1Q20-2Q22



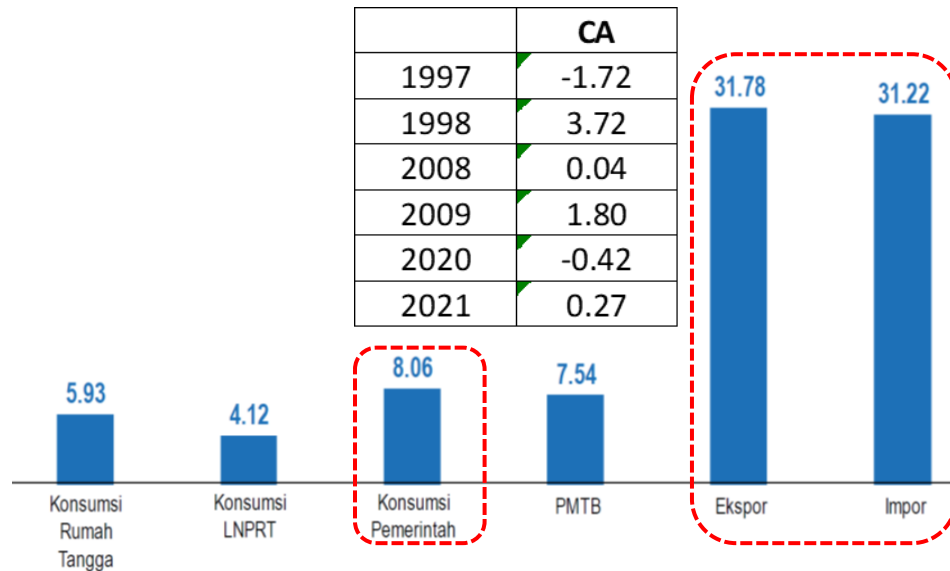
Growth of PMI and CCI, RI 2022



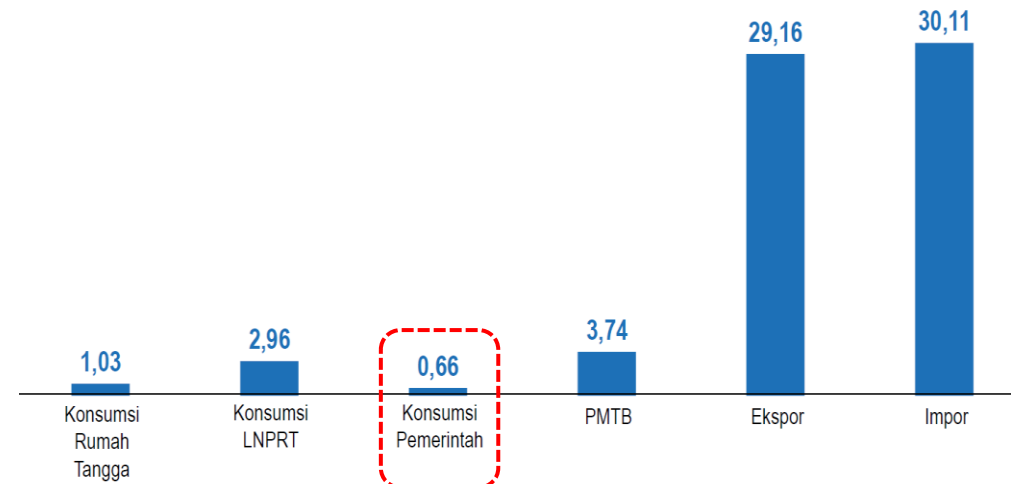
Source: Author's Illustration based on BPS Dataset 2022

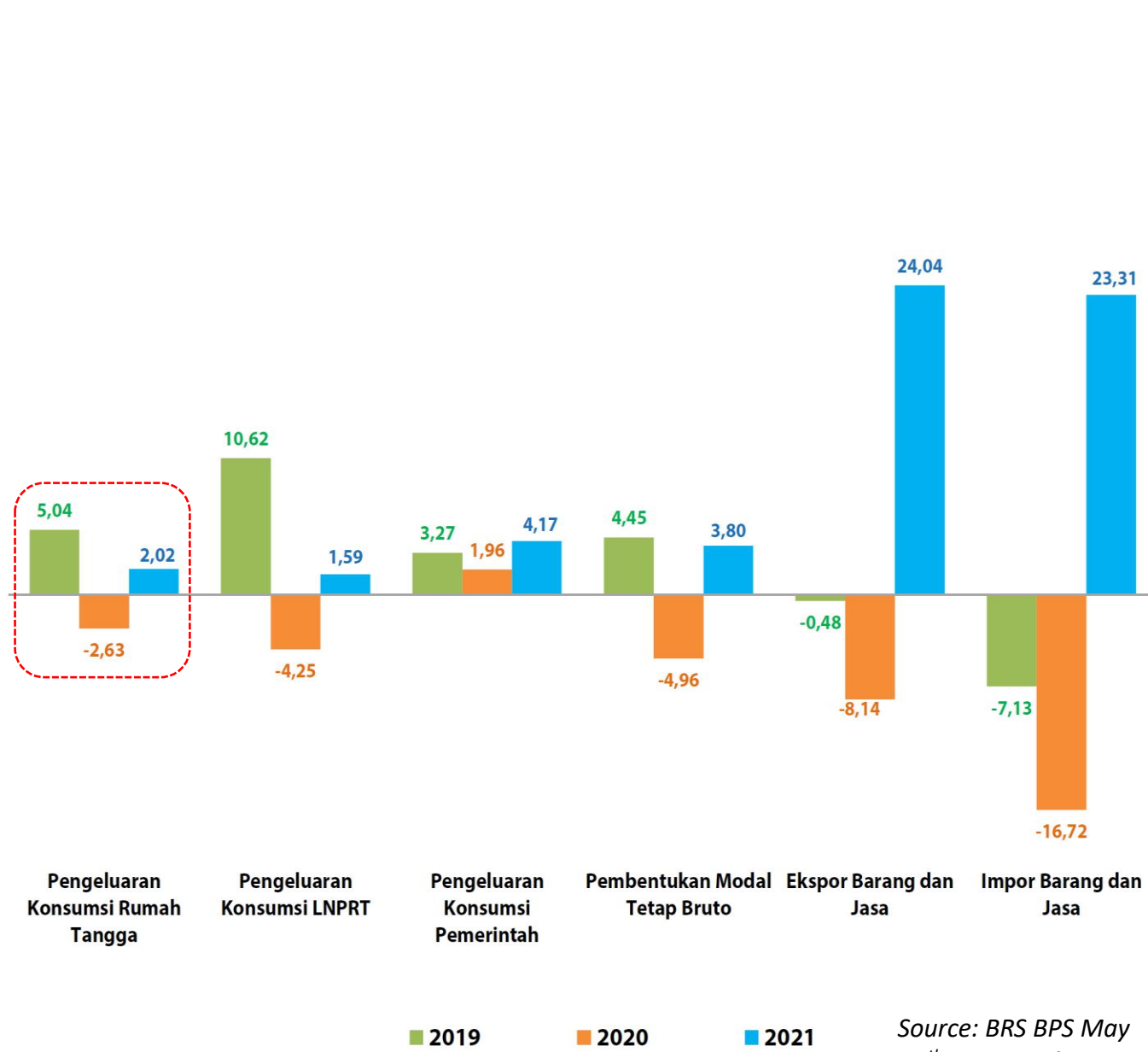


**PERTUMBUHAN EKONOMI TRIWULAN 2-2021 (*y-on-y*) MENURUT PENGELUARAN**  
(84,93% PDB Triwulan 2-2021 berasal dari Konsumsi Rumah Tangga dan Investasi)



**PERTUMBUHAN EKONOMI TRIWULAN 3-2021 (*y-on-y*) MENURUT PENGELUARAN**  
(83,54% PDB Triwulan 3-2021 berasal dari Konsumsi Rumah Tangga dan Investasi)

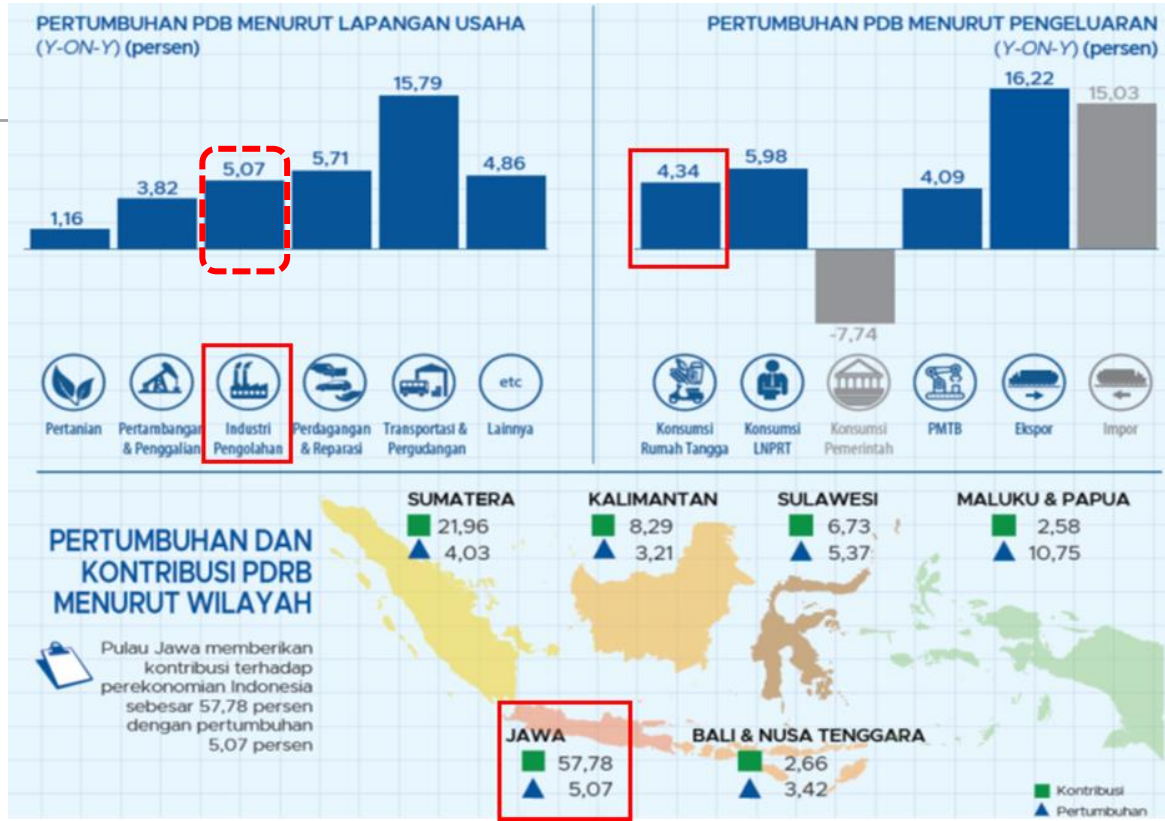
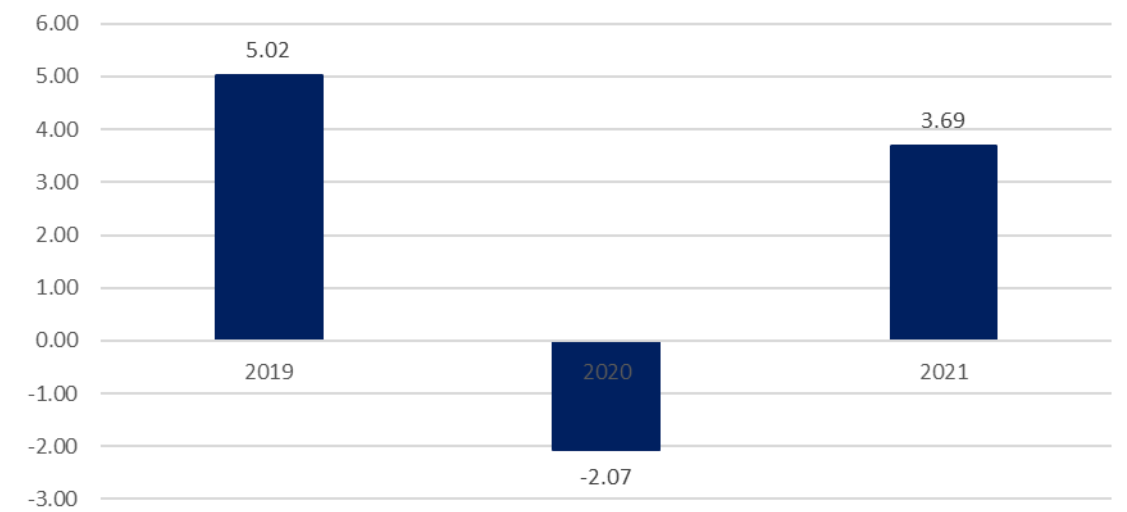




■ 2019 ■ 2020 ■ 2021

Source: BRS BPS May 9<sup>th</sup> 2022 and WDI WB 2022

RI's Economic Growth, 2020-2021



	Decrease	Increase
Strong	Financial Service	Health & Social Activities
	Education	ICT
	Administration Gov	Water
	Real Estate	5.97
	14.84	
Incline		Agriculture
		Mining
		21.74
Decline	Construction	Trade
	Firm Service	Transportation
	Other Service	Accomodation, F&B
	14.25	18.69
Poor	Manufacture	
	Electricity & Gas	
	21.01	

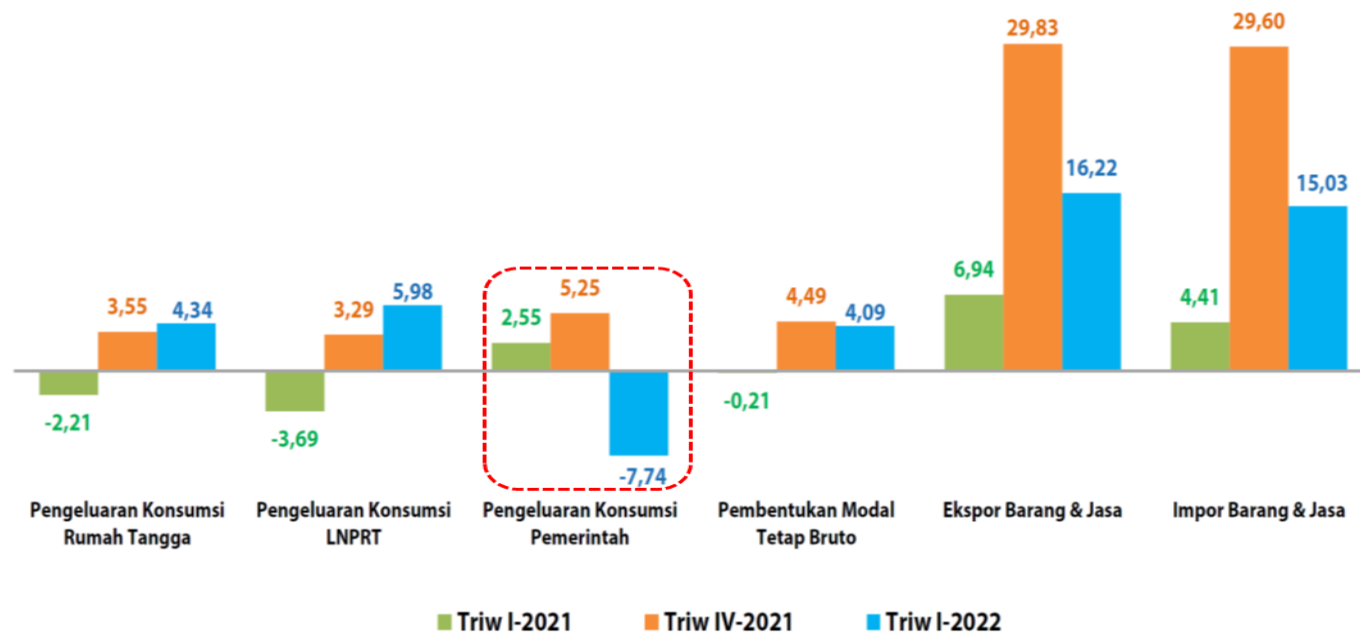
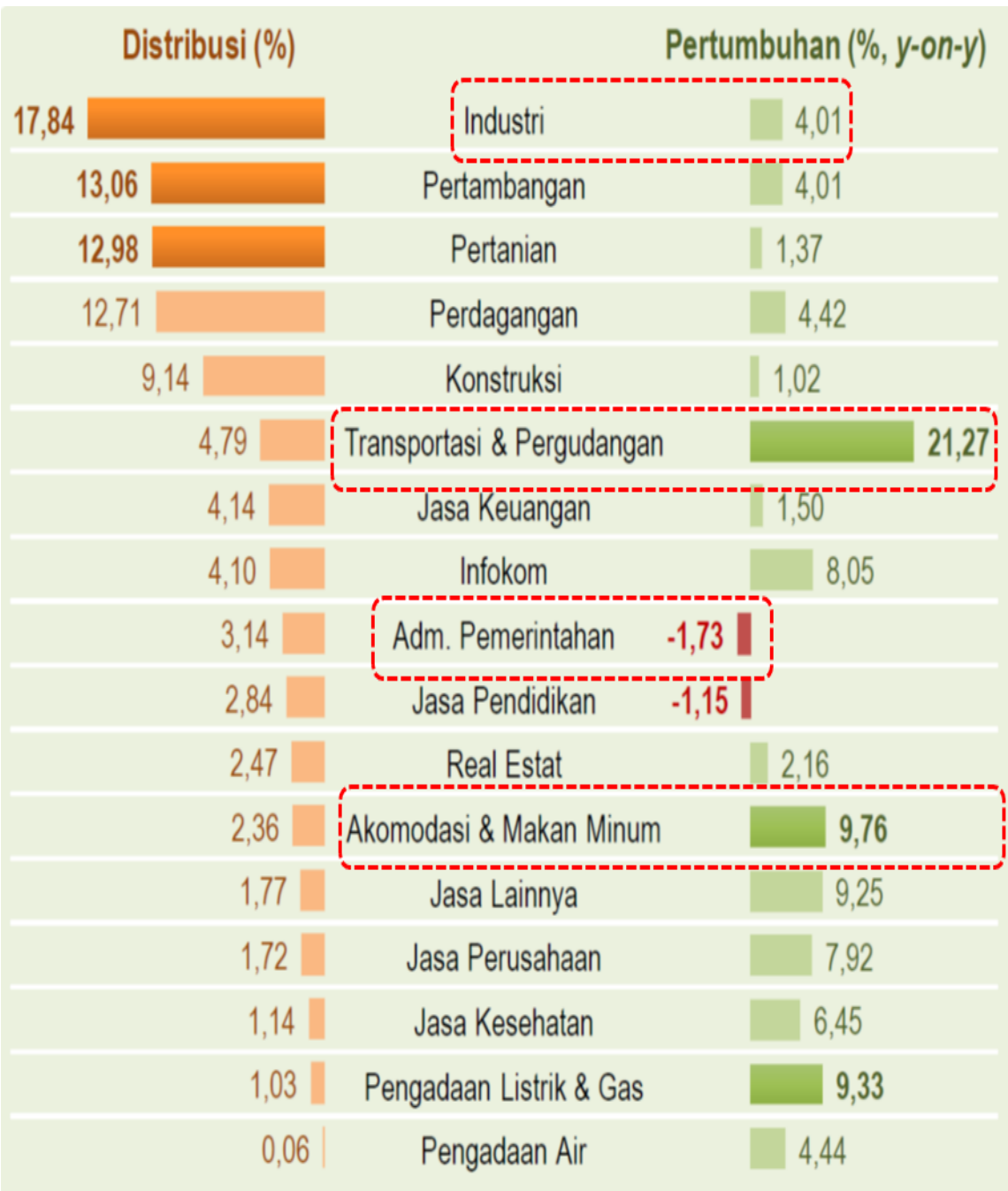
	Decrease	Increase
Strong	Financial Service	Water
	Education	
	Administration Gov	
	Real Estate	
	Health & Social Activities	
	ICT	
Incline	Mining	Agriculture
Decline		Construction
		Trade
	Other Service	Accomodation, F&B
		Firm Service
		Transportation
Poor		Manufacture
		Electricity & Gas

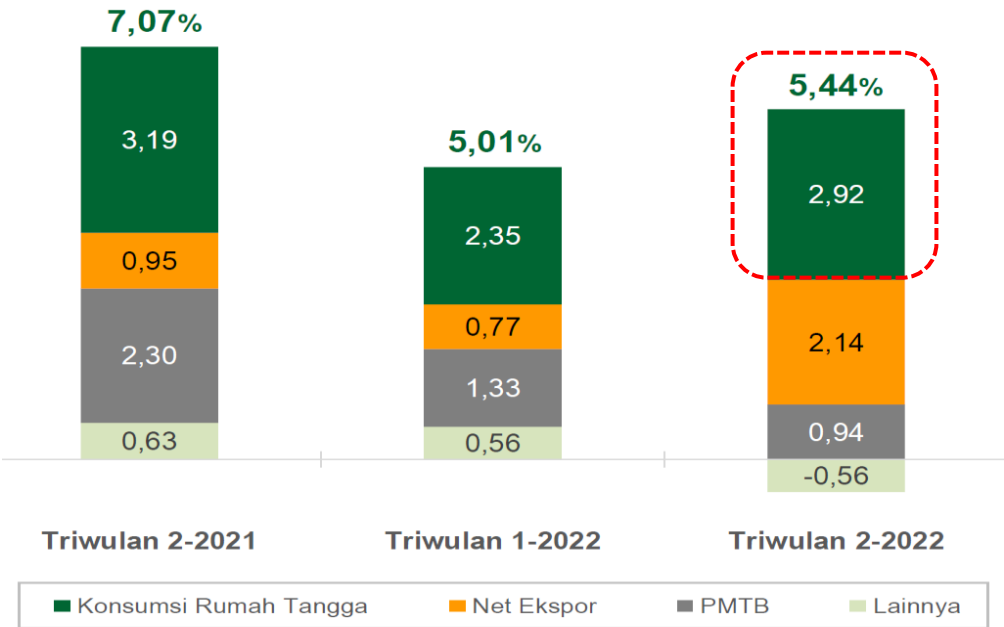
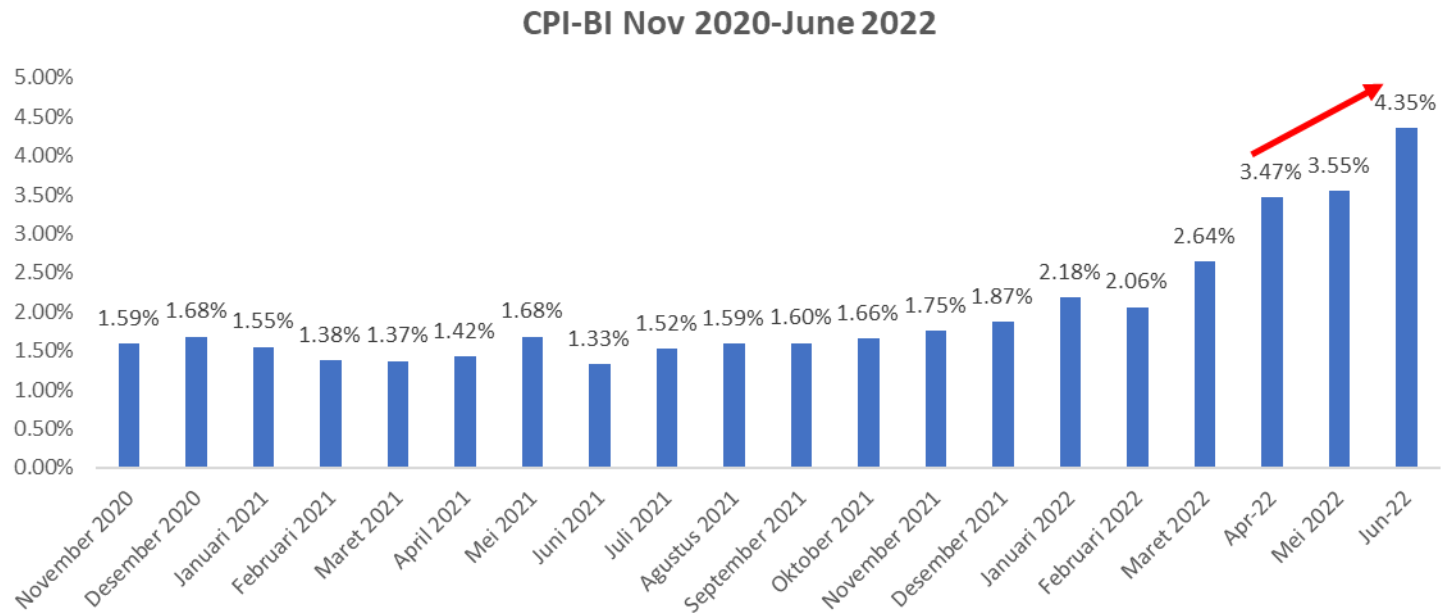
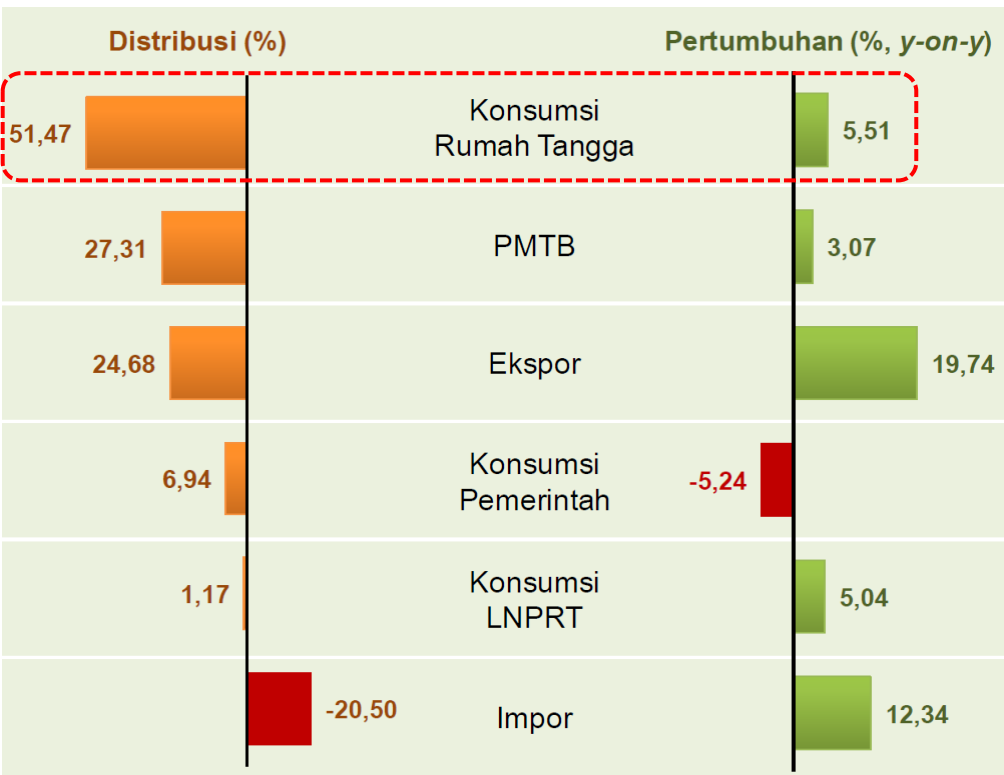
Source: Verico, based on BPS Data, 2018-2019 5.02% and 2019-2020 -2.07%, 1Q21

Opini: Tren Pertumbuhan Sektor-sektor Ekonomi Kita oleh Kiki Verico - Opini - koran.tempo.co April/04/21

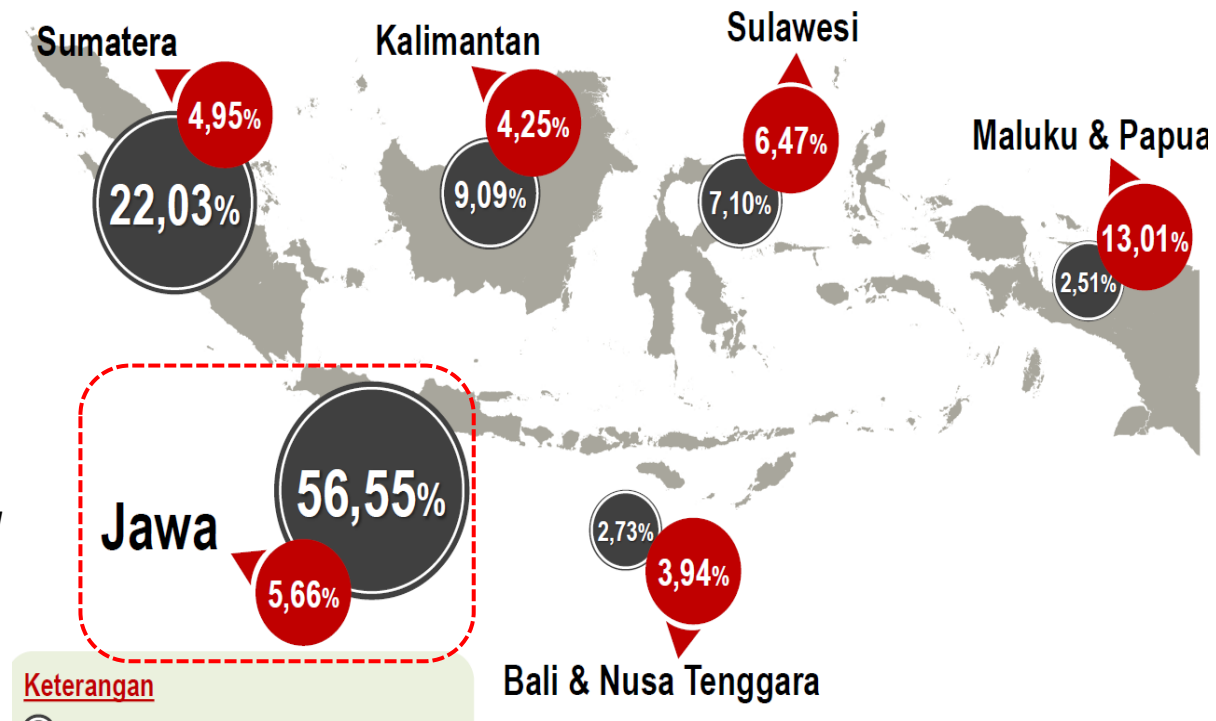
Manufacturing growth vital for Indonesia's economy - Mon, May 10 2021 - The Jakarta Post

The Usage of Economic Position in Understanding Indonesia's Economy and the Pandemic Effects | Jurnal Ekonomi Indonesia (isei.or.id)

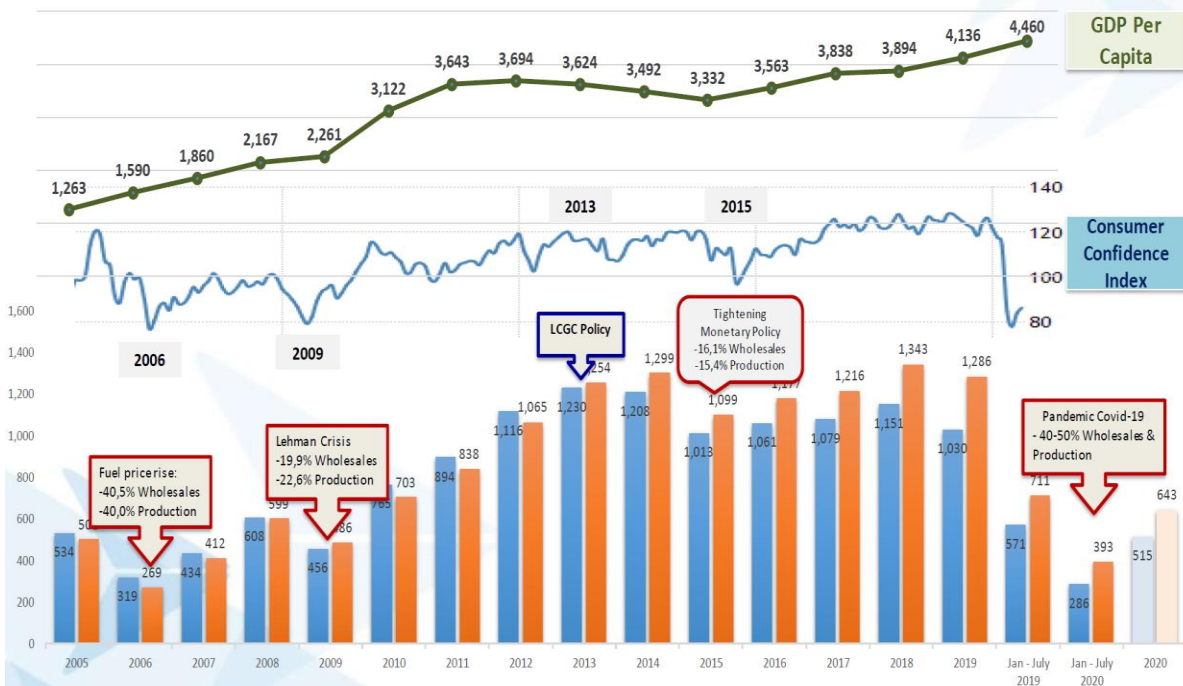




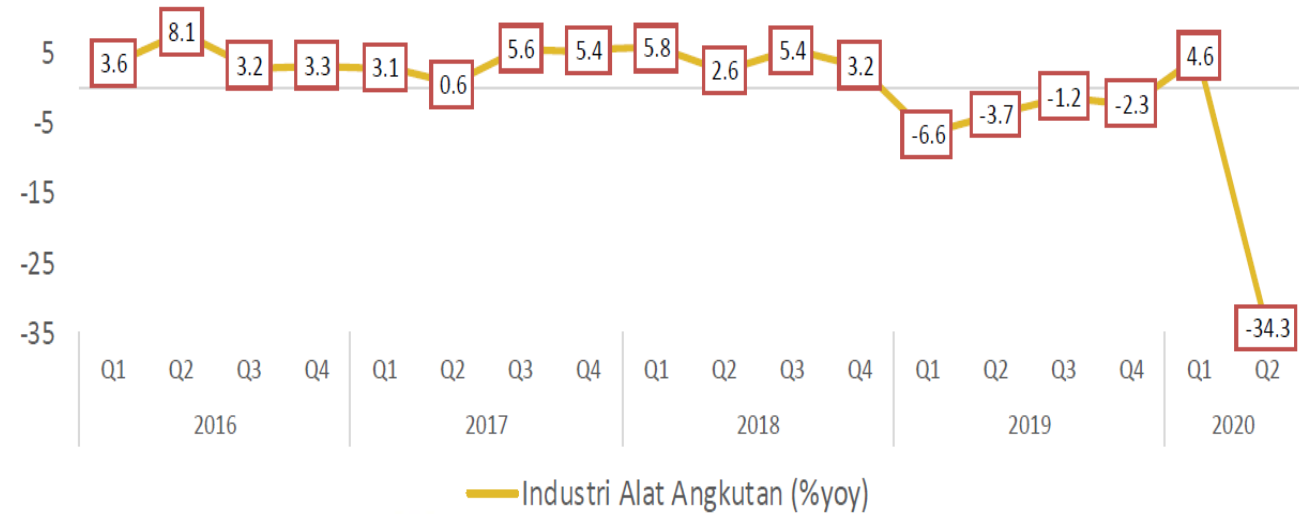
Source: BRS BPS  
August 5<sup>th</sup> 2022 and  
CPI BI 2022



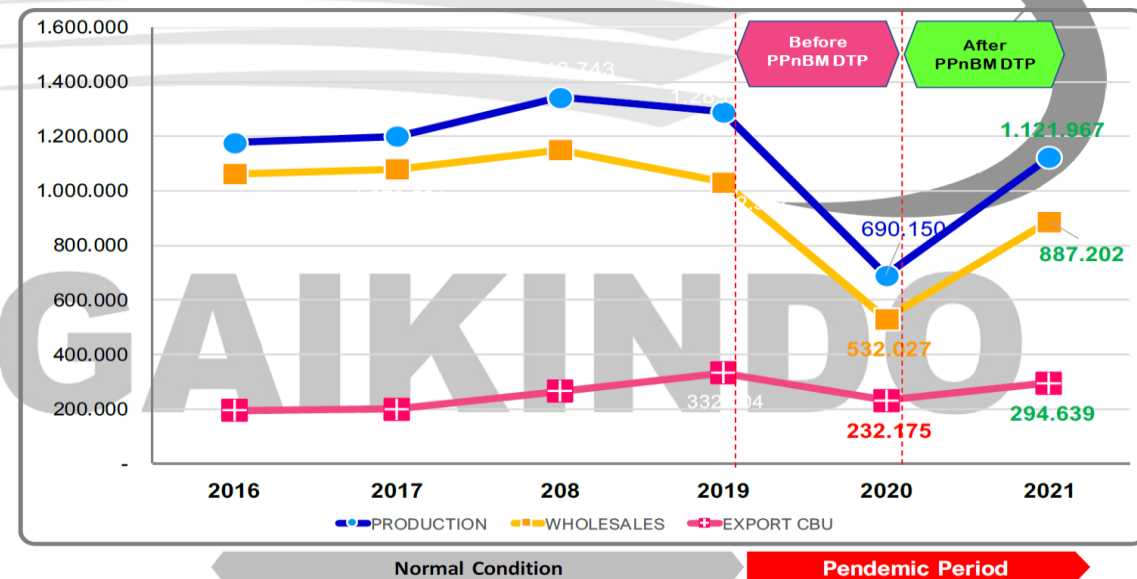
## Produksi dan Penjualan KBM R4 atau Lebih



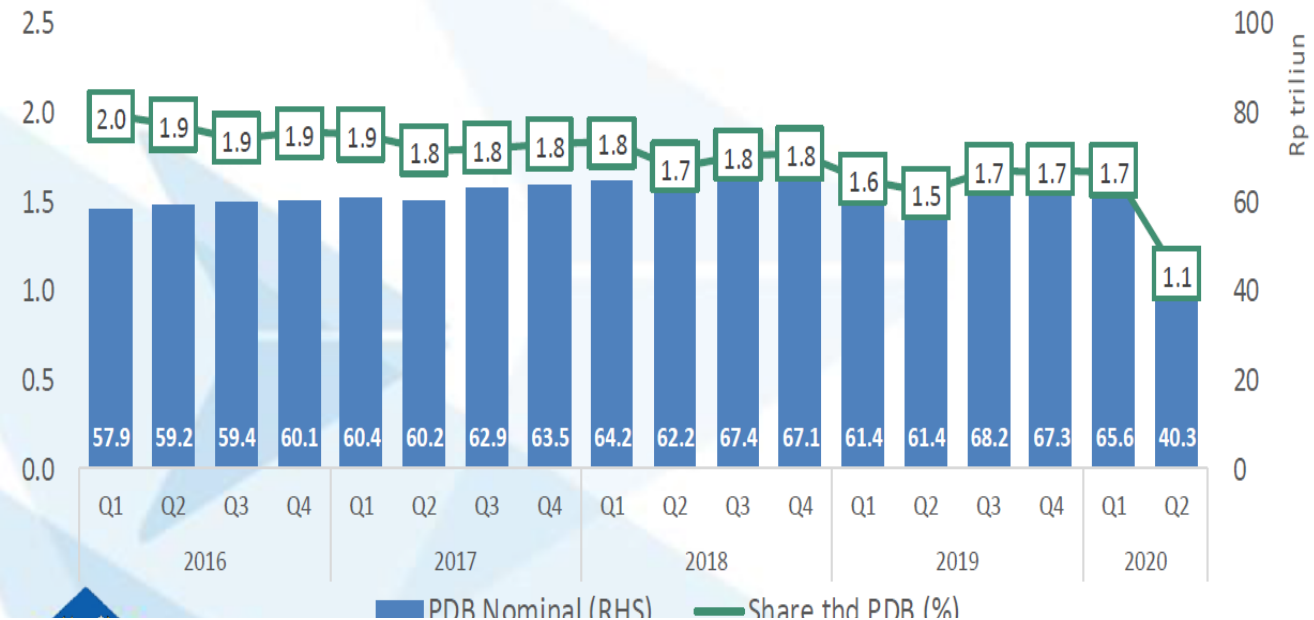
## Kinerja dan Kontribusi Sektor Industri Alat Angkutan



## POSITIVE IMPACT OF PPnBM DTP

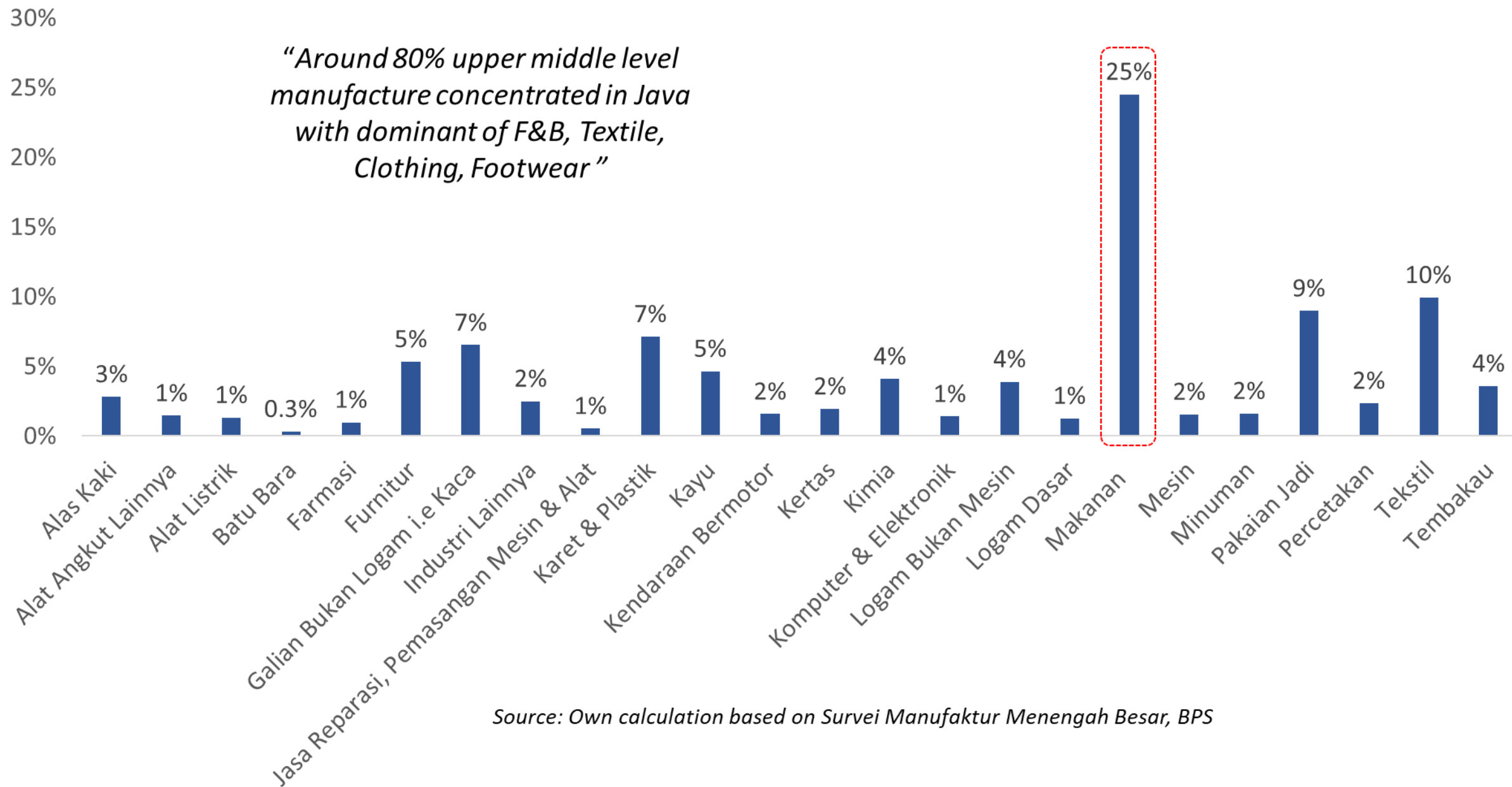


## Kontribusi & Nilai Tambah Domestik Industri Alat Angkutan



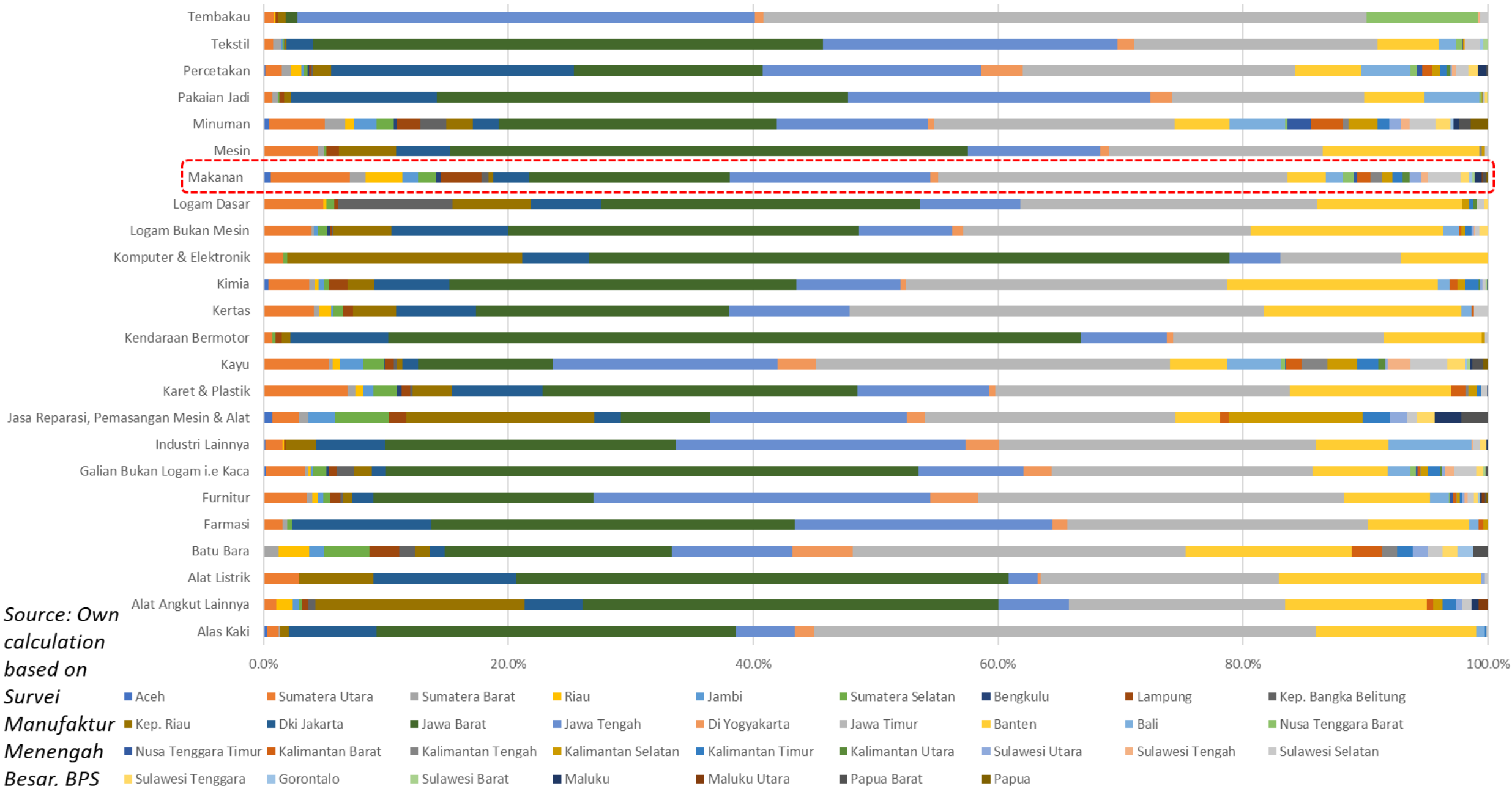
## Manufacture's Proportion (Upper Middle) KBLU, 2011

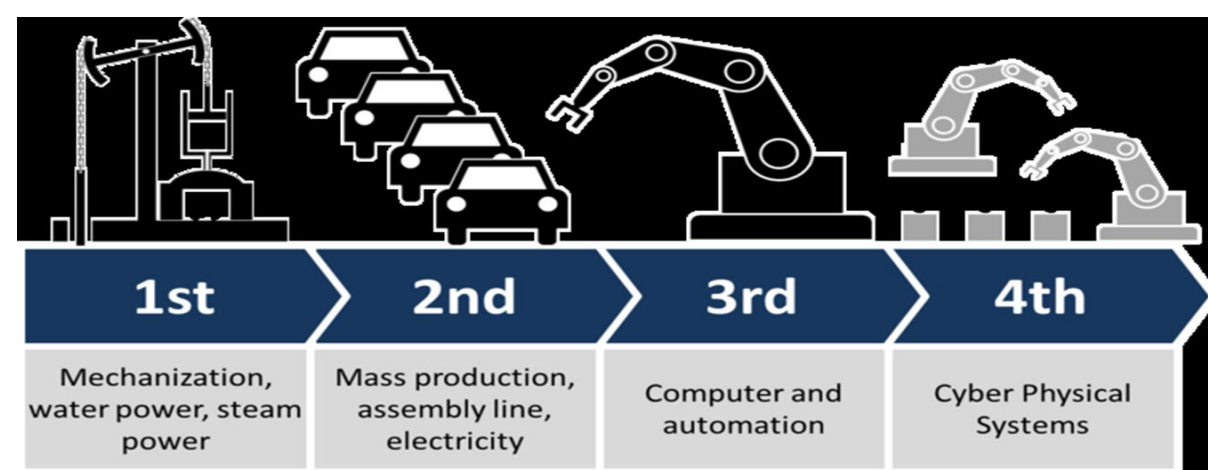
*"Around 80% upper middle level  
manufacture concentrated in Java  
with dominant of F&B, Textile,  
Clothing, Footwear"*



Source: Own calculation based on Survei Manufaktur Menengah Besar, BPS

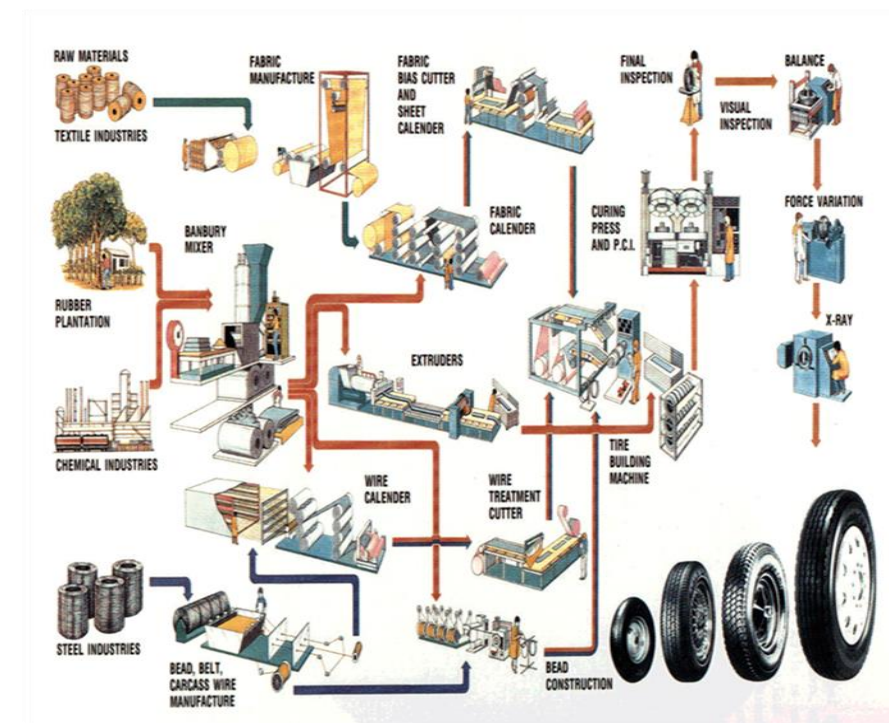
## Upper Middle Manufacture (%): By Industry By Region, 2011





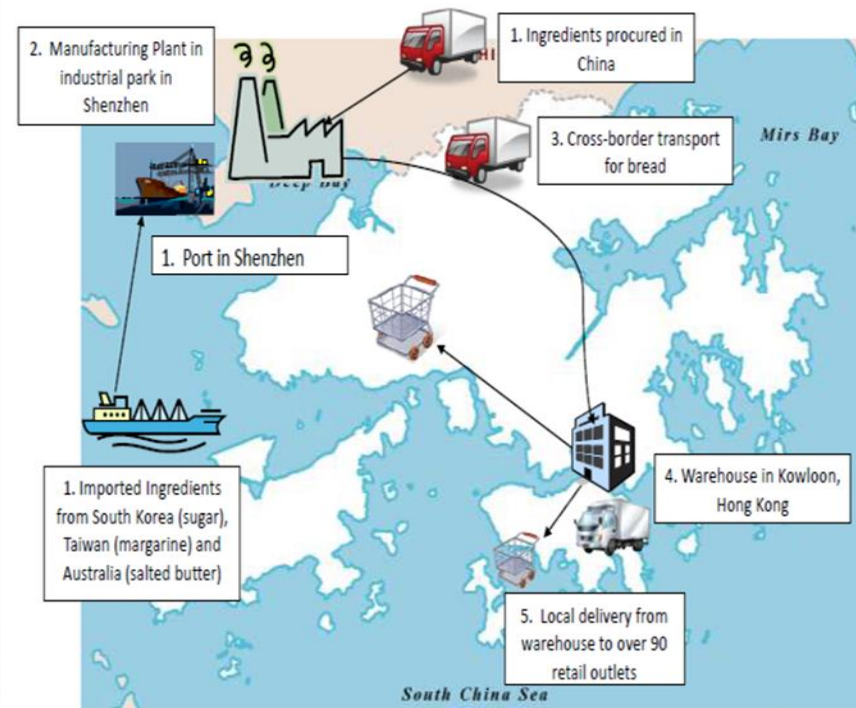
Source: [https://en.wikipedia.org/wiki/Industry\\_4.0](https://en.wikipedia.org/wiki/Industry_4.0)

## Global Production Network



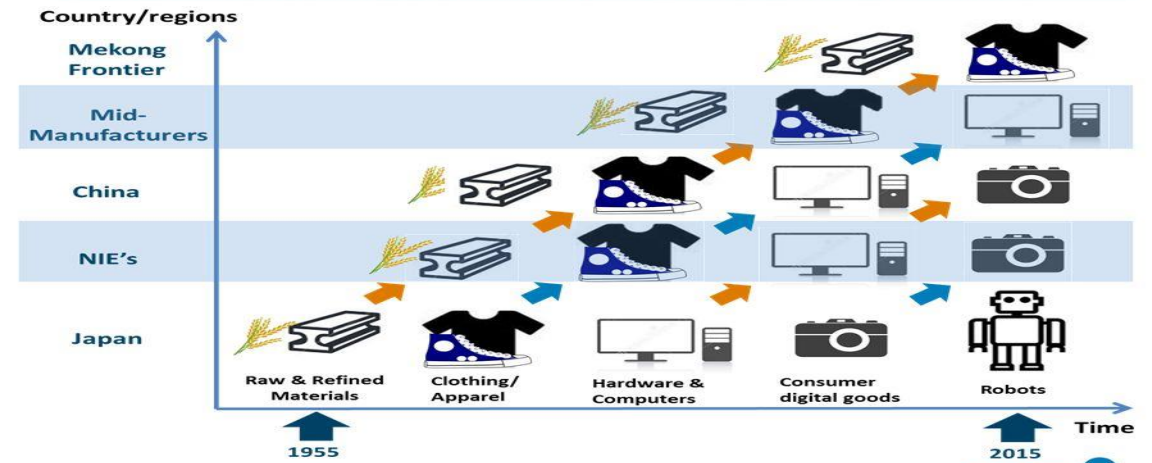
Source <http://www.emt-india.net/process/tyre/tyre.htm>

## Global Service Network

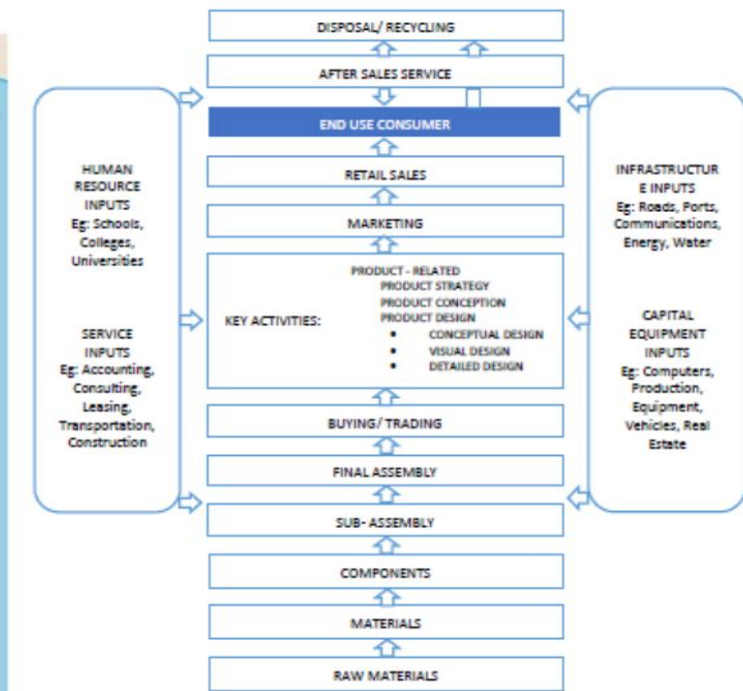


Source: Fung Global Institute

## The Last of the Flying Geese "Cascading Up" Value chains will remain a key dynamic

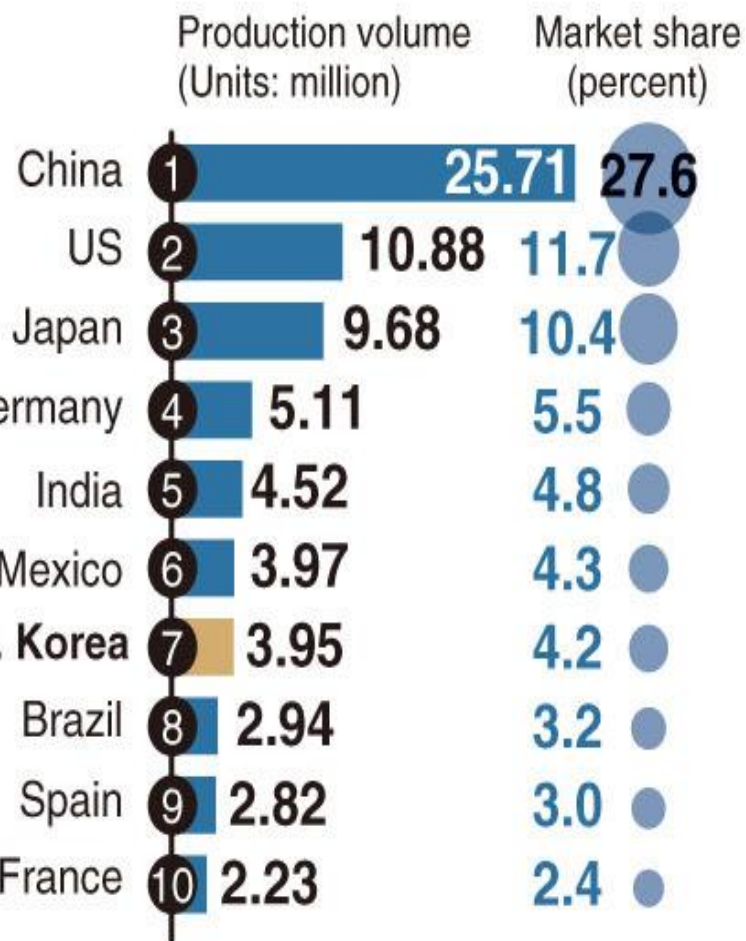


Page 12 Global Value Chain ANZ

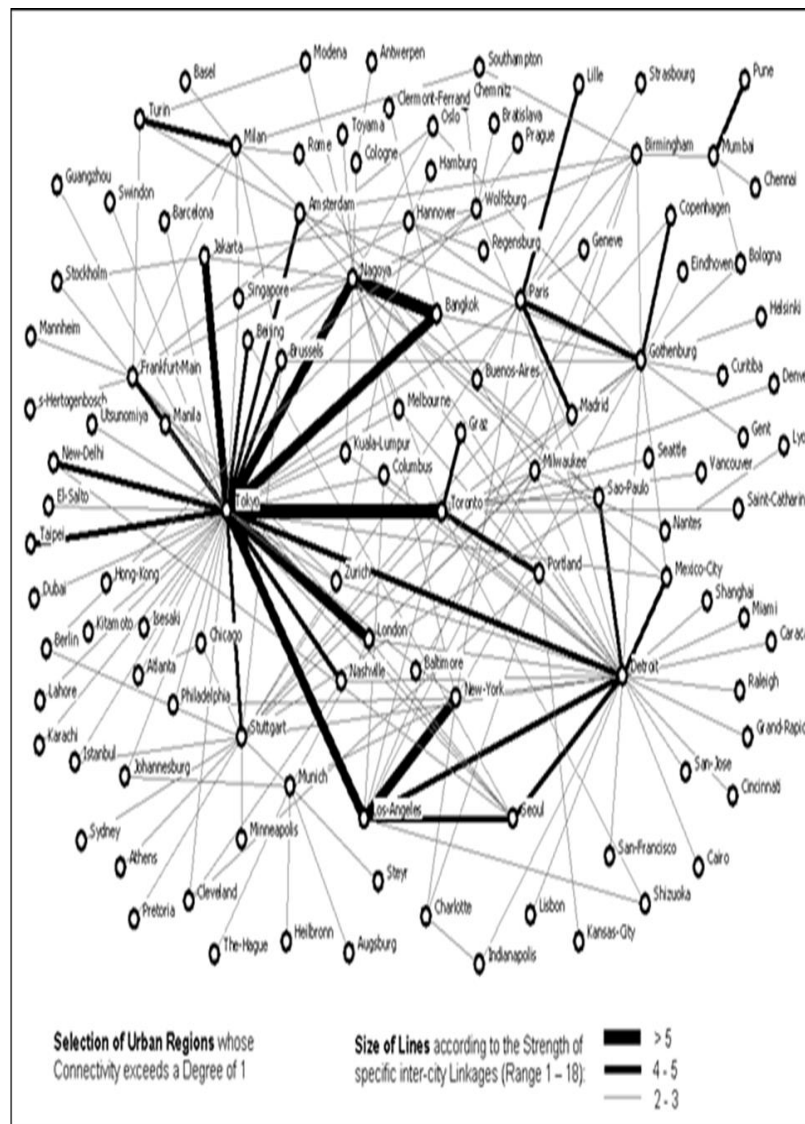


Sumber: Sturgeon (2001), Abonyi (2005)

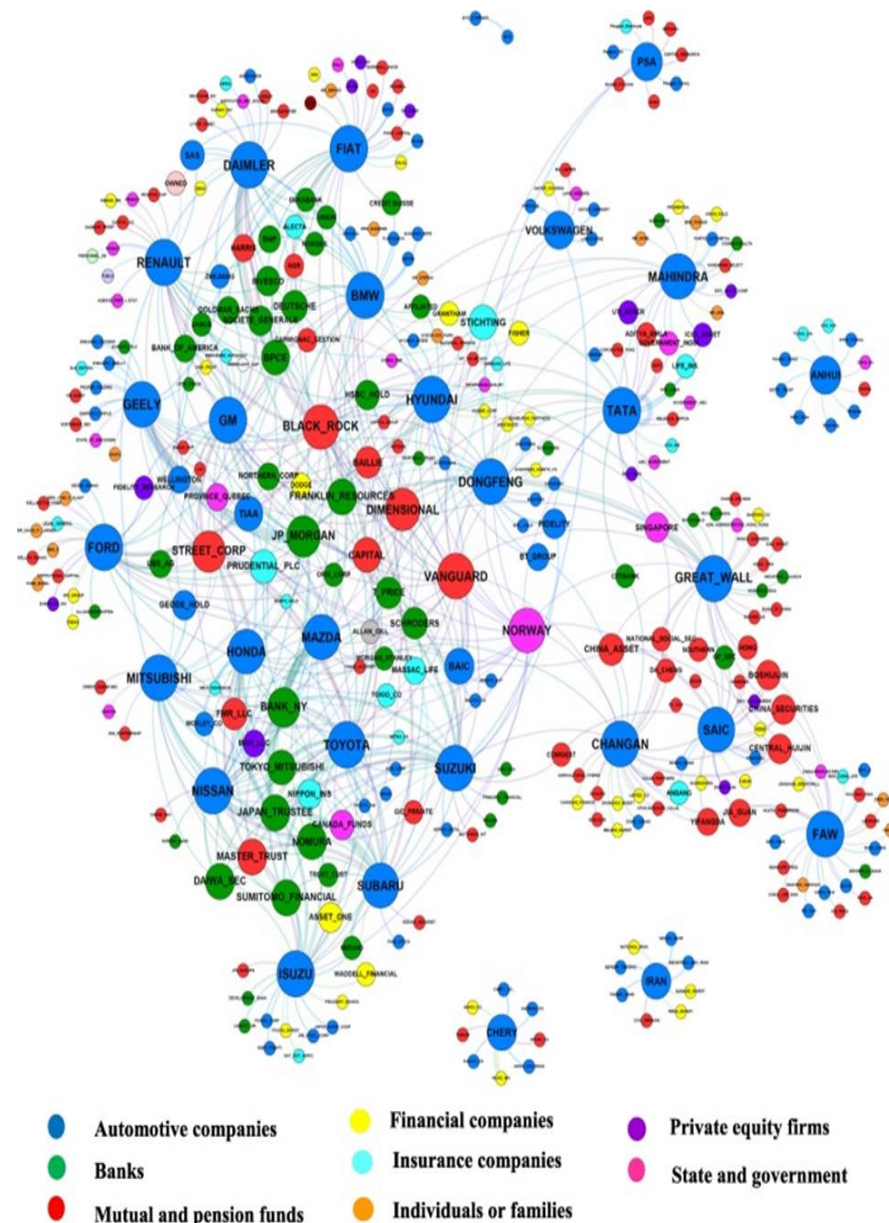
# Top 10 countries producing automobiles



Source: Korea Automobile Manufacturers Association



<http://www.lboro.ac.uk/gawc/rb/rb391.html>



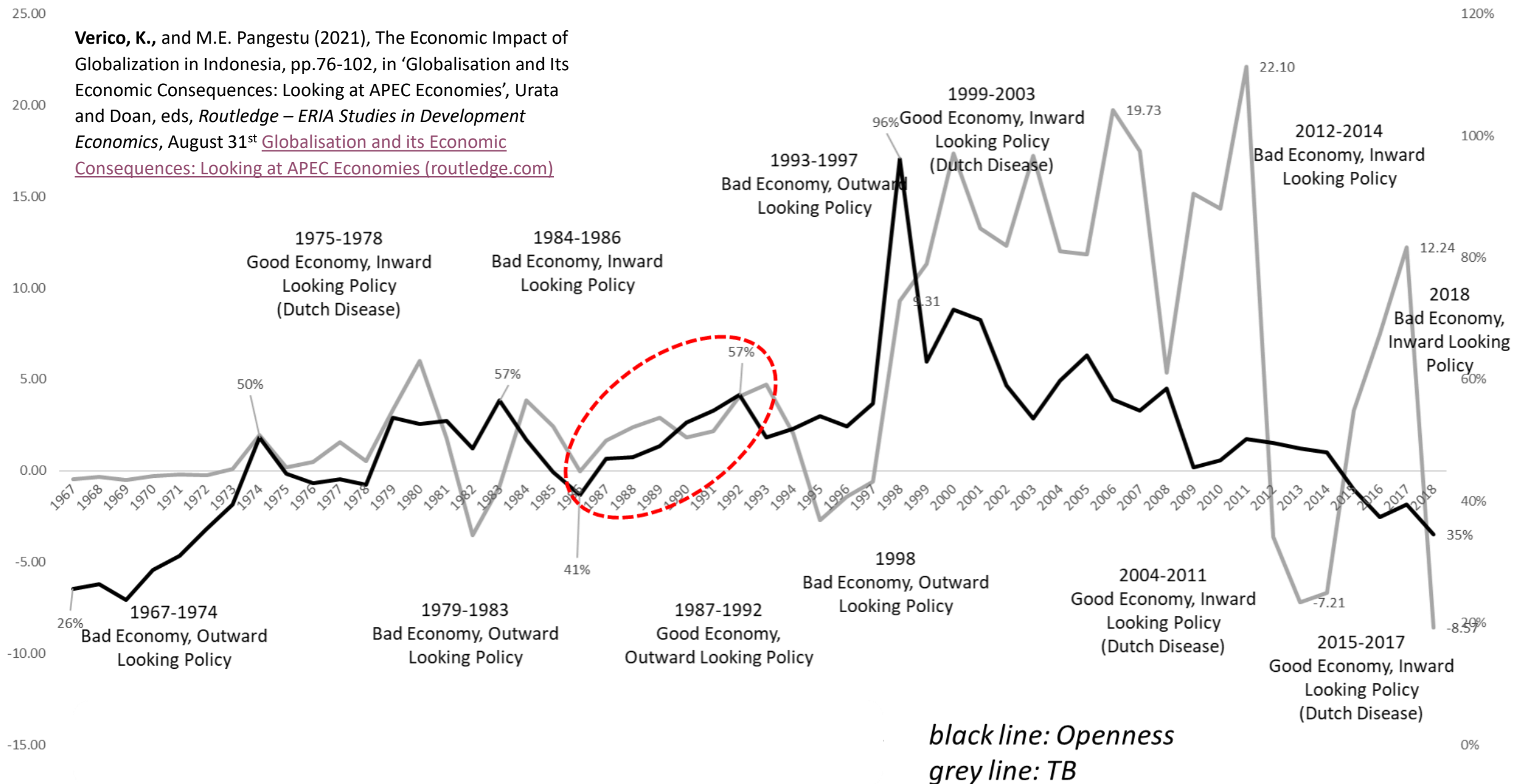
[Corporate ownership network in the automobile industry: Owners, shareholders and passive investment funds - ScienceDirect](#)

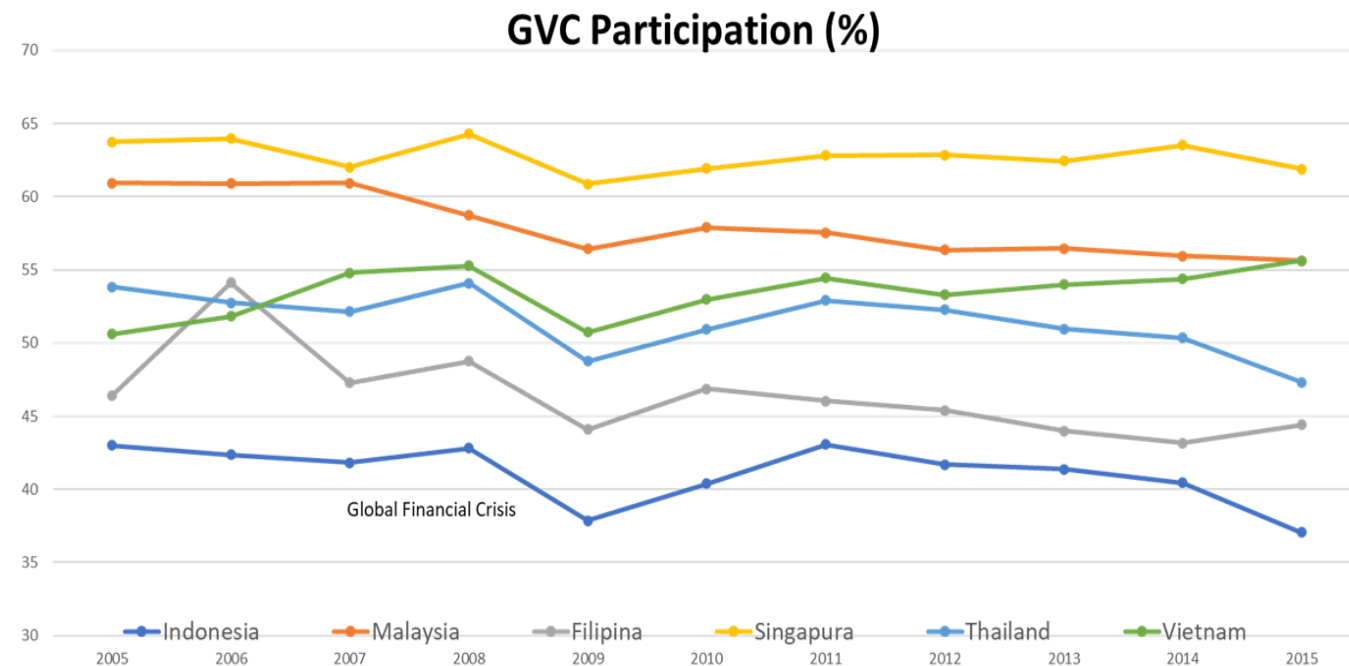
[MarioSacomano Neto<sup>a</sup>Marcelo José doCarmo<sup>a</sup>Evandro Marcos SaideRibeiro<sup>b</sup>Wilton Vicente Gonçalves daCruz<sup>a</sup>](#)

[\[Monitor\] South Korea remains world's 7th largest automobile producer \(koreaherald.com\)](#)

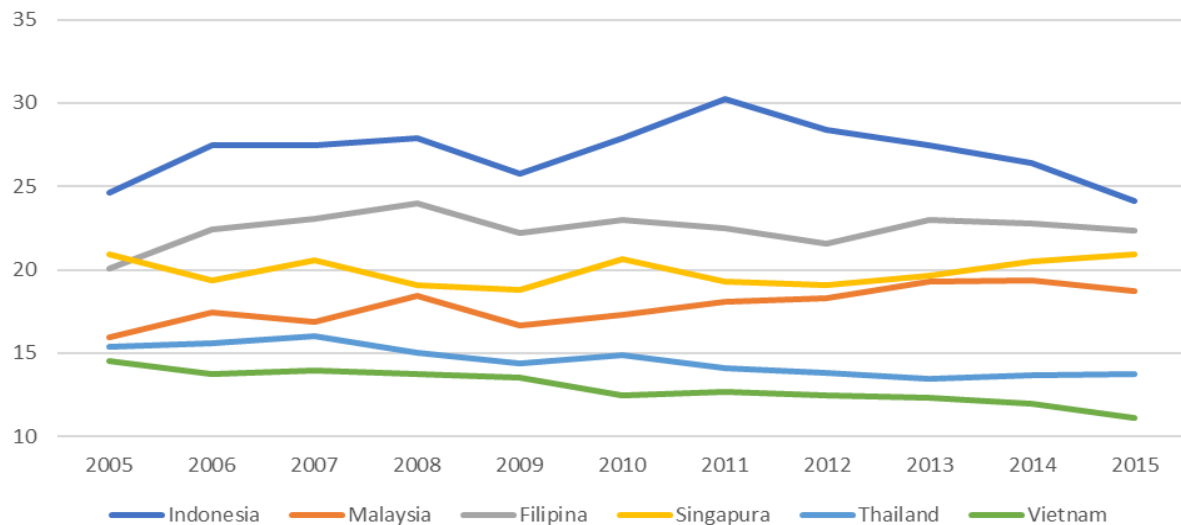
# TB (Billion USD) LHS & Openness (%) RHS 1967 - 2018

**Verico, K., and M.E. Pangestu (2021),** The Economic Impact of Globalization in Indonesia, pp.76-102, in 'Globalisation and Its Economic Consequences: Looking at APEC Economies', Urata and Doan, eds, *Routledge – ERIA Studies in Development Economics*, August 31<sup>st</sup> [Globalisation and its Economic Consequences: Looking at APEC Economies \(routledge.com\)](https://www.routledge.com/Globalisation-and-Its-Economic-Consequences-Looking-at-APEC-Economies/book/9781138388888)

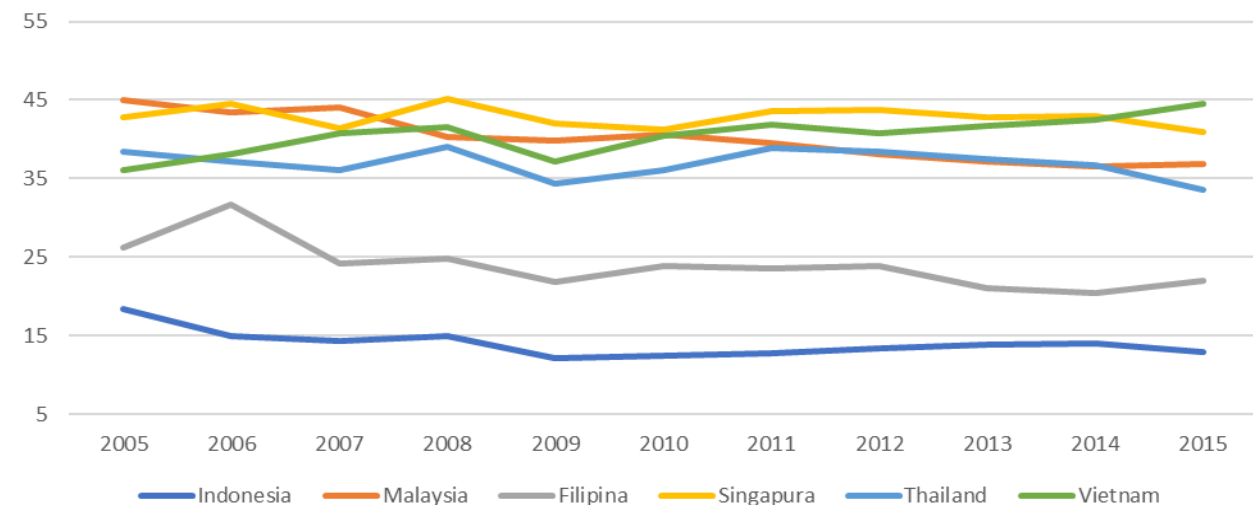




### Forward Participation (%)

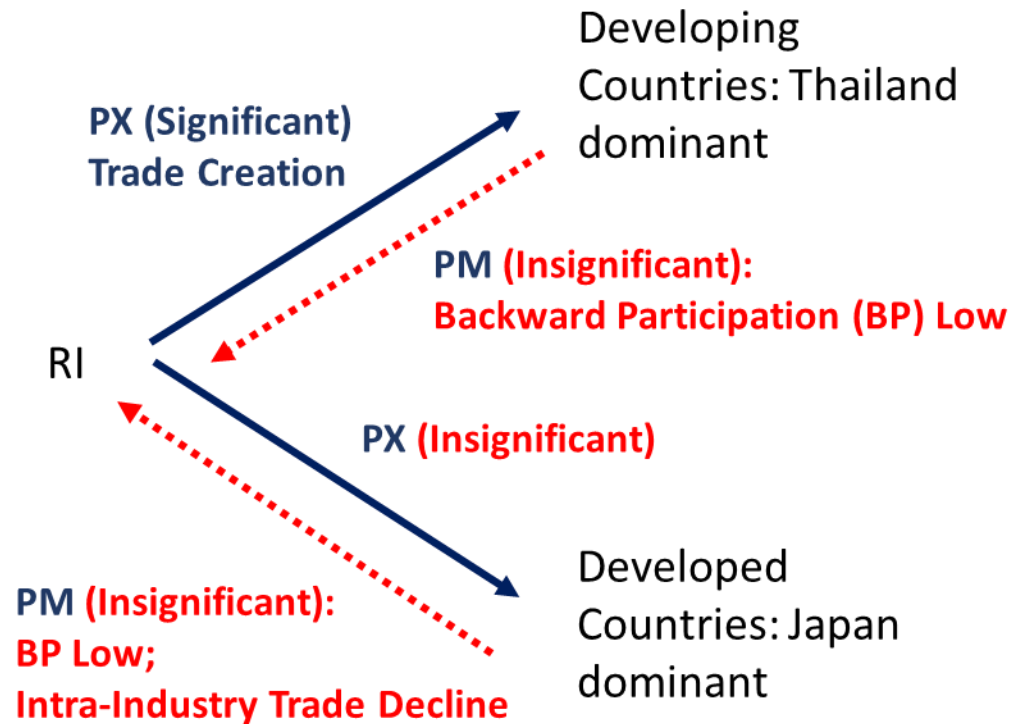


### Backward Participation (%)



Source: OECD TiVA 2018, Ingot (2020)

## Indonesia's automotive industry participation 2021-2022



*Fihabrina and Verico, 2021*  
*Husna and Hastiadi, 2022*

$$\frac{\Delta y_{it}}{y_{it}} = \frac{[i_{it} + (x_{it} - m_{it})] - \left[ (\partial_{it} + n_{it} + g_{it}) \sqrt{\frac{K_{it}}{L_{it}}} + (\partial_{it} + n_{it} + g_{it}) \sqrt{\frac{k_{it}}{l_{it}}} \right]}{icor_{it}}$$

### Pioneer Industry

❑ Intermediate Goods, Capital Intensive, High-Risk, Advanced & New Technology

❑ Digital Transformation

❑ Energy Transition

### FDI Inflows Motives

1. Market Seeking (FP)
2. Raw Material Seeking (FP)
3. Intermediate Input Production Network Seeking (BP)
4. RnDD – Machinery Production Network Seeking (BP)
5. Mixed Motives (FP & BP)

### Tech Transfer Model

1. Catching up
2. Leading edge
3. Comparative advantage
4. Short-cycle transformation
5. Strategic industries

(Justin Yifu Lin, 2020)

	TOTAL	RCA19RI	RCA19Korea	CMSA3RI	CMSA3Korea	RI	South Korea	Bilateral
'0208	Meat and edible offal of rabbits, hares, pigeons and other animals, fresh, chilled or frozen ...	2.14	1.91	-5,458	3,025	Sunset	Sunrise	FDIIn
'0306	Crustaceans, whether in shell or not, live, fresh, chilled, frozen, dried, salted or in brine, ...	5.46	1.46	-249,089	-169,588	Sunset	Sunrise	FDIIn
'0902	Tea, whether or not flavoured	1.36	0.08	-38,588	2,215	Sunset	Sunrise	FDIIn
'0904	Pepper of the genus Piper; dried or crushed or ground fruits of the genus Capsicum or of the ...	4.58	0.06	-254,102	1,729	Sunset	Sunrise	FDIIn
'0906	Cinnamon and cinnamon-tree flowers	20.14	0.02	-25,409	-653	Sunset	Sunrise	FDIIn
'1301	Lac; natural gums, resins, gum-resins, balsams and other natural oleoresins	6.28	0.10	-6,600	445	Sunset	Sunrise	FDIIn
'1513	Coconut "copra", palm kernel or babassu oil and fractions thereof, whether or not refined, ...	44.88	0.03	-103,479	1,281	Sunset	Sunrise	FDIIn
'1803	Cocoa paste, whether or not defatted	5.10	0.00	-130,594	-552	Sunset	Sunrise	FDIIn
'1805	Cocoa powder, not containing added sugar or other sweetening matter	6.66	0.03	-582	-287	Sunset	Sunrise	FDIIn
'1903	Tapioca and substitutes therefor prepared from starch, in the form of flakes, grains, pearls, ...	2.31	0.10	-6,334	-255	Sunset	Sunrise	FDIIn
'2008	Fruits, nuts and other edible parts of plants, prepared or preserved, whether or not containing ...	1.48	0.16	-25,598	-7,188	Sunset	Sunrise	FDIIn
'2302	Bran, sharps and other residues, whether or not in the form of pellets, derived from the sifting, ...	4.76	0.51	-8,750	-6,353	Sunset	Sunrise	FDIIn
'2603	Copper ores and concentrates	2.48	5.06	-2,885,139	-459,362	Sunset	Sunrise	FDIIn
'2711	Petroleum gas and other gaseous hydrocarbons	3.59	9.02	-2,352,674	22,057,300	Sunset	Sunrise	FDIIn
'2813	Sulphides of non-metals; commercial phosphorus trisulphide	1.32	0.00	-685	-1	Sunset	Sunrise	FDIIn
'2915	Saturated acyclic monocarboxylic acids and their anhydrides, halides, peroxides and peroxyacids;	2.97	0.01	-66,134	-75	Sunset	Sunrise	FDIIn
'2922	Oxygen-function amino-compounds	2.29	0.02	-154,464	2,377	Sunset	Sunrise	FDIIn
'3401	Soap; organic surface-active products and preparations for use as soap, in the form of bars, ...	5.90	0.69	-30,721	62,444	Sunset	Sunrise	FDIIn
'3605	Matches (excluding pyrotechnic articles of heading 3604)	5.11	0.02	-2,651	11	Sunset	Sunrise	FDIIn
'4001	Natural rubber, balata, gutta-percha, guayule, chicle and similar natural gums, in primary ...	31.38	0.01	-5,703	-1,935	Sunset	Sunrise	FDIIn
'4414	Wooden frames for paintings, photographs, mirrors or similar objects	5.42	0.07	-10,052	24	Sunset	Sunrise	FDIIn
'4417	Tools, tool bodies, tool handles, broom or brush bodies and handles, of wood; boot or shoe ...	1.40	0.11	-2,216	12	Sunset	Sunrise	FDIIn
'4820	Registers, account books, notebooks, order books, receipt books, letter pads, memorandum pads,	3.20	0.11	-6,559	2,034	Sunset	Sunrise	FDIIn
'4822	Bobbins, spools, cops and similar supports of paper pulp, paper or paperboard, whether or not ...	1.64	0.01	-140	0	Sunset	Sunrise	FDIIn
'5514	Woven fabrics containing predominantly, but < 85% synthetic staple fibres by weight, mixed ...	2.42	0.05	-11,449	-675	Sunset	Sunrise	FDIIn
'5515	Woven fabrics containing predominantly, but < 85% synthetic staple fibres by weight, other ...	1.79	0.02	-24,840	-65	Sunset	Sunrise	FDIIn
'5705	Carpets and other textile floor coverings, whether or not made up (excluding knotted, woven ...	1.15	0.15	-796	232	Sunset	Sunrise	FDIIn
'5906	Rubberised textile fabrics (excluding tyre cord fabric of high-tenacity yarn of nylon or other ...	1.25	0.12	-6,330	964	Sunset	Sunrise	FDIIn
'6101	Men's or boys' overcoats, car coats, capes, cloaks, anoraks, incl. ski jackets, windcheaters, ...	5.22	0.02	-27,407	268	Sunset	Sunrise	FDIIn
'6112	Track-suits, ski-suits and swimwear, knitted or crocheted	2.62	0.08	-72,853	-186	Sunset	Sunrise	FDIIn
'6305	Sacks and bags, of a kind used for the packing of goods, of all types of textile materials	1.40	0.05	-32,656	714	Sunset	Sunrise	FDIIn
'6402	Footwear with outer soles and uppers of rubber or plastics (excluding waterproof footwear of ...	1.10	0.01	-179,983	1,193	Sunset	Sunrise	FDIIn
'6403	Footwear with outer soles of rubber, plastics, leather or composition leather and uppers of ...	4.67	0.06	-142,699	2,898	Sunset	Sunrise	FDIIn
'6404	Footwear with outer soles of rubber, plastics, leather or composition leather and uppers of ...	4.33	0.02	-468,799	478	Sunset	Sunrise	FDIIn
'7201	Pig iron and spiegeleisen, in pigs, blocks or other primary forms	1.92	0.00	-136,953	-249	Sunset	Sunrise	FDIIn
'7320	Springs and leaves for springs, of iron or steel (excluding clock and watch springs, springs ...	1.06	0.23	-709	12,153	Sunset	Sunrise	FDIIn
'7501	Nickel mattes, nickel oxide sinters and other intermediate products of nickel metallurgy :	16.76	0.03	-169,312	-126,800	Sunset	Sunrise	FDIIn
'8506	Primary cells and primary batteries, electrical; parts thereof (excluding spent)	6.18	0.15	-42,164	-232	Sunset	Sunrise	FDIIn
'8510	Electric shavers, hair clippers and hair-removing appliances, with self-contained electric ...	3.14	0.10	-1,493	2,298	Sunset	Sunrise	FDIIn
'8533	Electrical resistors, incl. rheostats and potentiometers (excluding heating resistors); parts ...	1.15	0.04	-1,164	3,640	Sunset	Sunrise	FDIIn
'9201	Pianos, incl. automatic; harpsichords and other keyboard stringed instruments	17.78	0.09	-47,653	564	Sunset	Sunrise	FDIIn

Source:  
Verico &  
Riefky,  
International  
Journal of  
Business  
and Society,  
August 2022

Source: Own calculation based on Trade Map, 2021

Indonesia's automotive industry needs to move from forward to backward participation, downstream upstreaming to higher value-added chains. Potential networking is occurring at the regional level which requires production base improvement towards global level

THANK YOU!

