

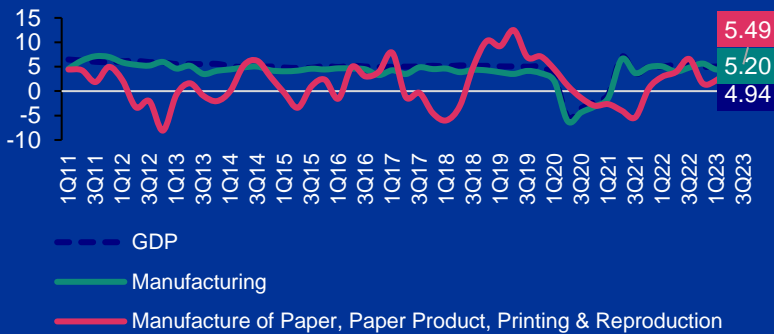
# Indonesia Pulp & Paper Industry

Permata Institute for Economic Research

January 2024

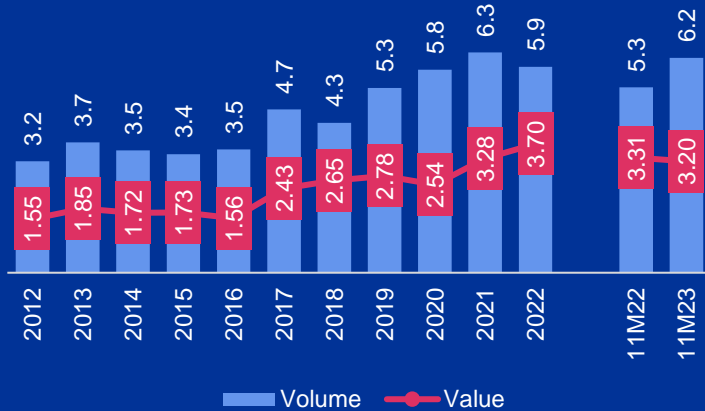


## GDP Growth of Paper and Paper Products (%yoy)



Source: Statistics Indonesia, Permata Institute for Economic Research

## Pulp of wood, waste and scrap paper or paperboard export (Mn tons, USD bn)



Source: Statistics Indonesia, Permata Institute for Economic Research

## Paper and Paperboard; Articles of Paper Pulp or of Paper/Paperboard (Mn Tons, USD bn)



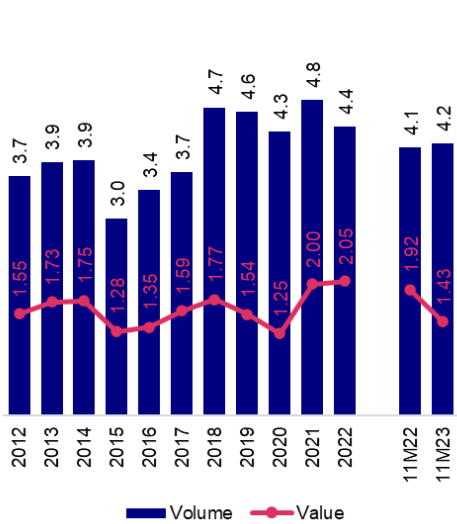
Source: Statistics Indonesia, Permata Institute for Economic Research

## Latest Performance

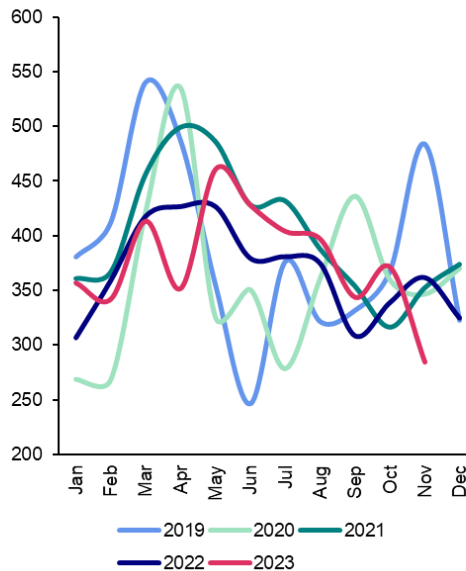
The GDP of Indonesia's Paper and Paper Products Industry continues to recover after the pandemic. The Gross Domestic Product (GDP) of the Paper and Paper Products Industry in Indonesia 3Q23 recorded a growth of 5.49%yoy, exceeding both the national economic growth and the growth of Indonesia's manufacturing industry at 4.94%yoy and 5.20%yoy. It also accelerated from 2.22%yoy and 4.50%yoy in 1Q23 and 2Q23, respectively. Throughout January – September 2023, the GDP of Paper and Paper Products manufacturing grew by 4.09%yoy, higher than 3.48%yoy in the same period in 2022. Improved export performance from Pulp and Paper Products in 2023 was a driver for the performance.

The export volume of pulp and paper, as well as paper products, was accelerating in 2023, while the export values stagnated. According to data from Statistics Indonesia, the export volume of pulp and Paper and Paper Products was recorded at 6.2 million (mn) tons and 5.3 mn tons, growing 16.9%yoy and 10.4%yoy cumulatively in January-November 2023 compared to the same period in 2022. However, the increase in the volume was not matched by the rise in export value due to the declining global paper prices. The export value of pulp and paper and paper products was recorded at USD 3.2 billion and USD 4.42 billion, experiencing a contraction of -0.3%yoy for Pulp and a slight growth of 1.1%yoy for Paper and Paper Products.

**Pulp of wood, waste and scrap paper or paperboard import volume (mn tons, USD bn)**



**Monthly Import Volume (Tons)**



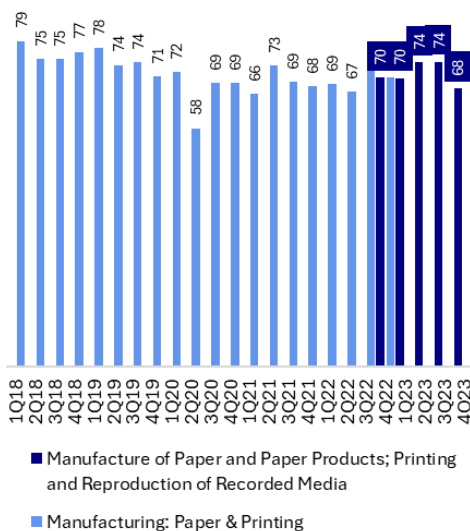
**China Pulp Price Index (USD/MT)**



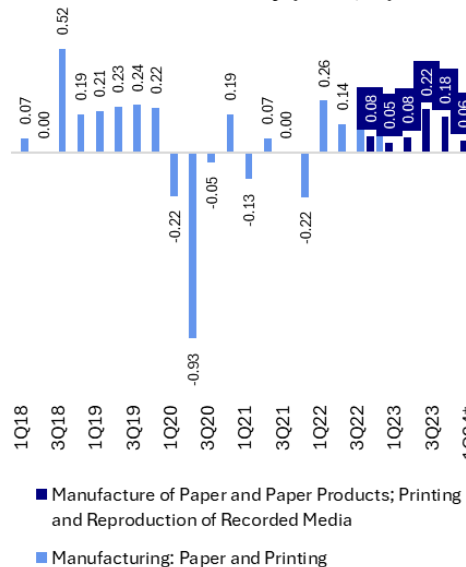
Source: Statistics Indonesia, Bloomberg, Permata Institute for Economic Research

**Indonesia’s pulp import volume experienced an increase in 2023, indicating increased production activity in the paper industry.** In January – November 2023, the import volume of pulp amounted to 4.2 million tons, rising by 2.44% compared to January – November 2022. The capacity utilization of the manufacturing paper and paper products also reached its highest level at 3Q23 with 74.29% after declining in 2022, signaling a better production level. On the other hand, the import value of pulp of wood, waste and scrap paper from January to November 2023 declined by 25.52%, reaching USD1.43 billion (bn) from USD1.92 bn during the same period in 2022. This was in line with the declining trend of global pulp prices. In 2023, China’s pulp price was USD857/mt, or contracted by 19.9%, compared to the average pulp price in 2022 of USD1056/mt - thus lowering both Indonesia’s export and import value of pulp.

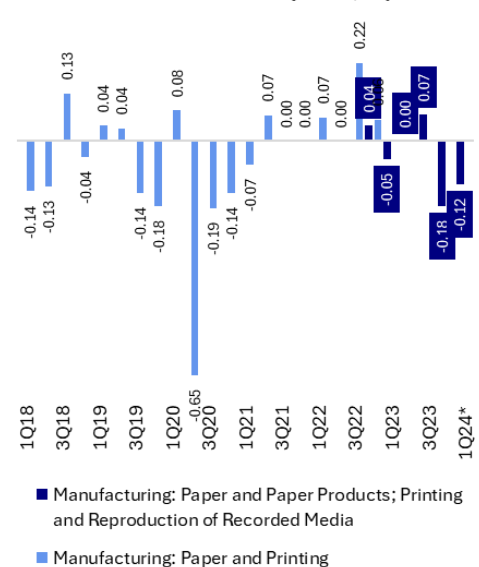
**Capacity Utilization (%)**



**Business Activity (NWB, %)**

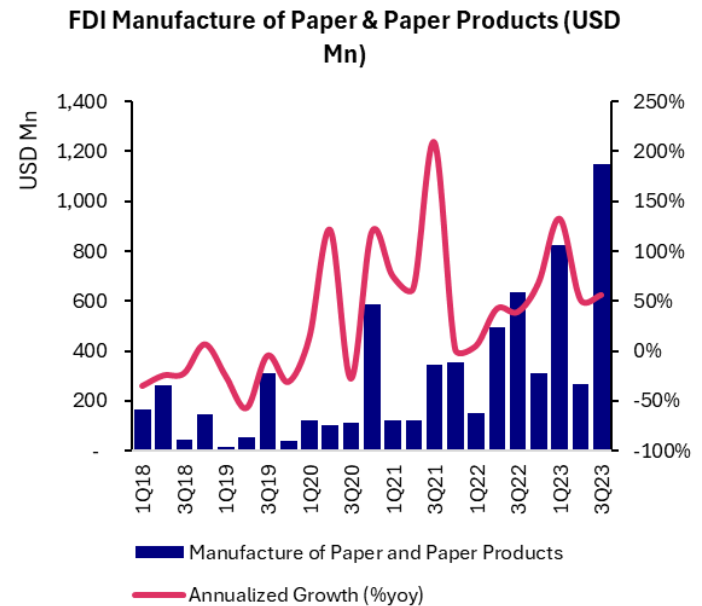
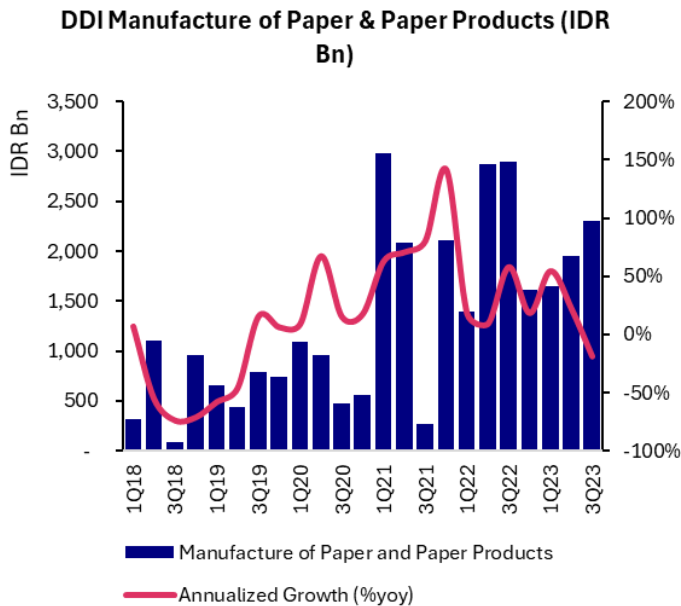


**Labor Utilization (NWB, %)**



Source: Bank Indonesia, Permata Institute for Economic Research

However, in 4Q23, the production capacity utilization and business activity in paper manufacturing were declining. According to the Bank Indonesia's Business Survey, the production utilization and the net weighted balance (NWB) of the business activity of paper and paper products amounted to 67.88% and 0.18%, respectively. Those indicators slumped from the previous quarter – signaling lower activity in manufacturing paper and paper products. Furthermore, the expectation of business activity in 1Q24 is also decreasing as many producers are slowing their production process as election day approaches in 1Q24.



DDI by Region	Last 4Q (IDR Bn)	FDI by Region	Last 4Q (USD Mn)
<b>West Java</b>	<b>3148.49</b>	<b>Riau</b>	<b>1001.39</b>
Subang Regency	1627.14	Pelalawan Regency	1001.12
Karawang Regency	684.28	Siak Regency	0.25
Bekasi Regency	435.12	Kampar Regency	0.03
<b>East Java</b>	<b>2750.79</b>	<b>South Sumatera</b>	<b>793.88</b>
Gresik Regency	1031.67	Ogan Komering Ilir Regency	791.13
Mojokerto Regency	939.08	Muara Enim Regency	2.75
Sidoarjo Regency	634.24	<b>West Java</b>	<b>371.04</b>
<b>Banten</b>	<b>544.34</b>	Karawang Regency	323.28
Tangerang Regency	296.25	Bekasi Regency	36.93
Serang Regency	170.55	Bekasi City	5.58
Tangerang City	76.02	<b>North Kalimantan</b>	<b>214.47</b>
<b>Central Java</b>	<b>470.85</b>	Tarakan City	214.47
Kudus Regency	199.19	<b>Banten</b>	<b>68.32</b>
Kendal Regency	183.11	Serang Regency	64.75
Demak Regency	34.96	Tangerang Regency	1.81
<b>Riau</b>	<b>321.73</b>		
Pekanbaru City	205.46		
Siak Regency	115.99		
Dumai City	0.20		

The investment in manufacturing paper and paper products also slowed down in the 3Q23, following the wait-and-see approach from investors. The domestic investment in paper and paper products in 3Q23 reached IDR2.3 trillion (tn) or declined by 18.9%yoy. On the other hand, foreign investment sky-rocketed, running USD1.1 bn or jumping 56%yoy. Looking at the region level, provinces in Java became the leading destinations for domestic investment, while provinces in Sumatera Island were the main attractors for foreign investors. Nevertheless, despite the slowed down in recent quarters, investment in the paper industry is still growing, indicating that Indonesia's paper industry is still attractive to investors.

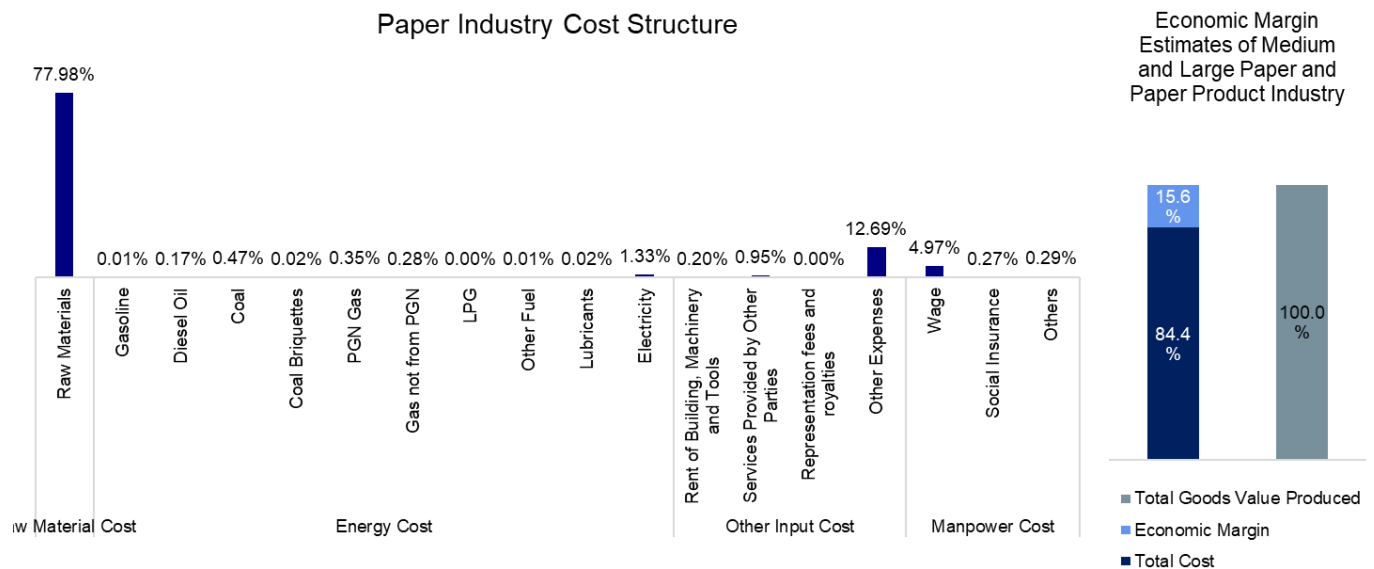
## Industry Landscape

The midstream value chain of Indonesia's pulp and paper industry heavily relies on imported raw materials, while the upstream and downstream sectors can depend on domestic resources. There are three segments in the value chain of Indonesia's Pulp and Paper Industry: the upstream is the Pulp Sector, the midstream is the Paper Sector, and the downstream is the Paper Products sector. In the midstream sector, a significant portion of imports includes products from the pulp industry itself, which cannot be produced domestically, such as paper waste. Almost all of this product is imported, representing 96% of the total input required by Indonesia's paper industry. Furthermore, the paper industry in Indonesia also substantially imports raw materials from the Basic Chemical Industry, essential for paper production. However, for the pulp industry, which provides raw materials for the paper industry, and the paper products industry, which uses products from the paper industry, the proportion of imported raw materials is comparatively small. As a result, fluctuations in the exchange rate have a more pronounced effect on the paper industry than on other segments of the value chain.

Input Origin by Industry	Input Origin Mapping of Food and Beverages Industry								
	Pulp			Paper			Paper Products		
	Proportion of Total Raw Material Input (%)	% Domestic	% Import	Proportion of Total Raw Material Input (%)	% Domestic	% Import	Proportion of Total Raw Material Input (%)	% Domestic	% Import
Wood	21.6%	99%	1%	7.5%	99%	1%	1.5%	99%	1%
Items Made of Paper and Cardboard	10.4%	90%	10%	2.3%	90%	10%	6.9%	62%	38%
Trade other than Cars and Motorbikes	10.3%	100%	0%	7.5%	100%	0%	6.7%	100%	0%
Paper	7.7%	80%	20%	8.0%	80%	20%	17.2%	75%	25%
Land Transport Services Apart from Rail Transport	6.3%	100%	0%	6.0%	100%	0%	5.0%	100%	0%
Paper pulp	6.1%	8%	92%	23.7%	4%	96%	30.8%	93%	7%
Coal and lignite	4.9%	96%	4%	4.7%	99%	1%	0.0%	NA	NA
Basic Chemistry Except Fertilizer	4.8%	41%	59%	9.8%	46%	54%	6.6%	89%	11%
Other Forest Products	3.2%	99%	1%	0.3%	99%	1%	0.2%	99%	1%
Rental Services and Business Support Services	2.6%	88%	12%	0.8%	88%	12%	0.9%	87%	13%
Banking Financial Services	2.4%	97%	3%	1.9%	97%	3%	1.7%	97%	3%
Electricity	1.8%	100%	0%	2.5%	100%	0%	0.7%	100%	0%
Oil and Gas Refinery Products	1.3%	71%	29%	0.2%	71%	29%	0.5%	98%	2%
Starting Engine	1.2%	8%	92%	2.3%	13%	87%	1.6%	14%	86%
Other chemical items	1.2%	50%	50%	1.5%	50%	50%	1.7%	63%	37%
Others	14.2%	NA	NA	20.9%	NA	NA	18.0%	NA	NA
<b>Total</b>	<b>100%</b>	<b>83.8%</b>	<b>16.2%</b>	<b>100%</b>	<b>62.9%</b>	<b>37.1%</b>	<b>100%</b>	<b>84.3%</b>	<b>15.7%</b>

Source: Statistics Indonesia, Bloomberg, Permata Institute for Economic Research

**The largest cost component in the Paper and Paper Products Industry is the cost of raw materials.** According to the 2019 Indonesian Manufacturing Statistics, the proportion of raw material costs in Indonesia's Paper and Paper Products Industry amounts to 78% of the total production costs. Meanwhile, other costs such as Energy, Labor, and Other Input Costs account for only 2.7%, 5.5%, and 19.4%, respectively. Therefore, fluctuations in raw material prices significantly impact the Paper and Paper Product Industry. A closer examination of the factors driving global paper price fluctuations reveals that they tend to follow the development of global commodity prices, which in turn rely on expectations of global economic growth.



Source: Statistics Indonesia, Bloomberg, Permata Institute for Economic Research

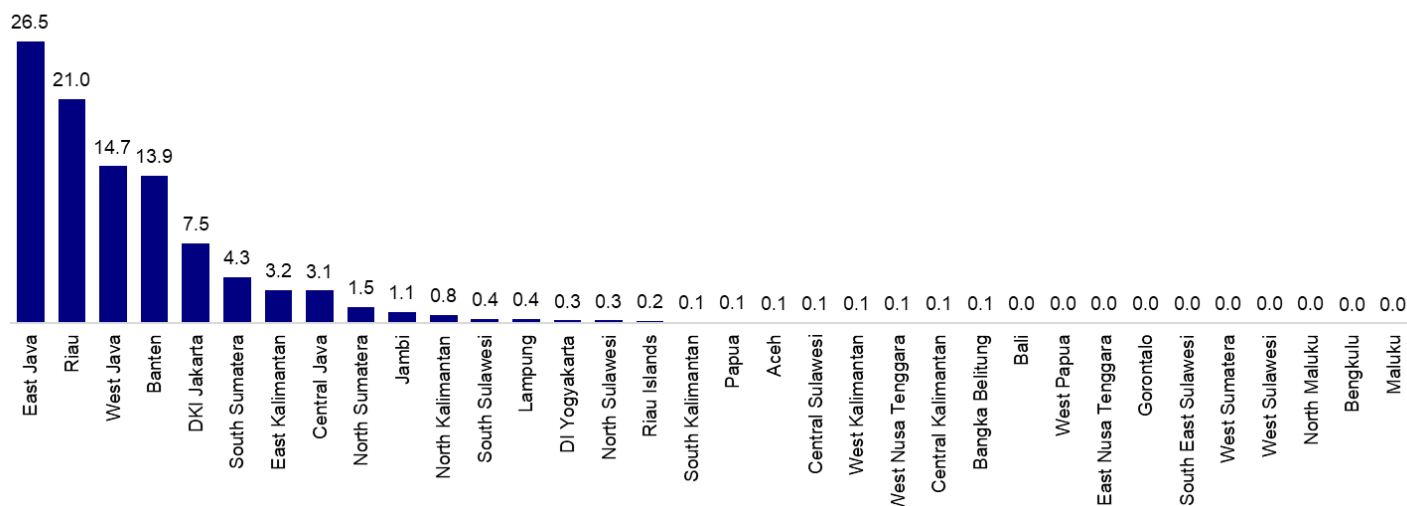
**The downstream Paper Products Industry allocates almost all of its products to the domestic market, while the pulp sector and the paper sector allocate a portion of their output for export.** In the downstream value chain, namely the Paper Products Industry, most of its output is allocated for the domestic market and is used as raw material for other sectors. The largest user of output from the Paper Products Industry is the trade sector, where the products are most likely cardboard and paper packaging. The domestic paper products industry can also relatively meet the domestic market needs, as seen from the domestic industry's share of produced products reaching almost 90% of the total circulation of Paper Products Industry output in the domestic market. Meanwhile, the upstream and midstream sectors, namely the Pulp Sector and Paper Industry, have a relatively large proportion of exports, amounting to 38.5% and 36.7% of the total output produced by these two sectors, respectively. Therefore, fluctuations in demand from the export market will more significantly affect the performance of the upstream and midstream value chain. Meanwhile, the paper products sector will be more influenced by the development of demand from the domestic market, especially the overall Indonesian economy.

Output Users by Industry	Pulp			Paper			Paper Products		
	Share (%)	Domestic Industry Origin Output (%)	Output of Foreign Industry Origin (%)	Share (%)	Domestic Industry Origin Output (%)	Output of Foreign Industry Origin (%)	Share (%)	Domestic Industry Origin Output (%)	Output of Foreign Industry Origin (%)
Intermediate Consumption	62.8%	55%	45.5%	60.9%	79%	20.9%	86.5%	87%	12.7%
Items Made of Paper and Cardboard	35.7%	93%	7.3%	10.7%	75%	25.2%	4.0%	62%	37.7%
Paper	23.5%	4%	96.4%	4.3%	80%	19.6%	1.1%	90%	10.4%
Paper pulp	3.1%	8%	92.2%	2.1%	80%	19.5%	2.7%	90%	10.4%
Goods resulting from other processing industries	0.5%	19%	80.9%	0.2%	81%	19.0%	0.1%	25%	74.8%
Kitchen tools, carpentry, household and office furniture from metal	0.0%	68%	31.7%	0.1%	80%	19.5%	0.1%	90%	10.4%
Cigarette	0.0%	NA	NA	4.8%	80%	19.5%	3.6%	90%	10.4%
Trade other than Cars and Motorbikes	0.0%	NA	NA	4.2%	80%	19.5%	23.8%	90%	10.4%
Publishing Results	0.0%	NA	NA	3.2%	80%	19.5%	2.7%	90%	10.4%
Other Services	0.0%	NA	NA	1.8%	97%	2.6%	0.8%	99%	1.3%
Land Transport Services Apart from Rail Transport	0.0%	NA	NA	1.7%	80%	19.6%	2.2%	90%	10.4%
General Government Services	0.0%	NA	NA	1.3%	85%	15.4%	1.3%	86%	13.6%
Air Transport Services	0.0%	NA	NA	1.1%	80%	19.5%	1.6%	90%	10.4%
Rental Services and Business Support Services	0.0%	NA	NA	1.0%	80%	19.5%	4.7%	90%	10.4%
Electronic Goods, Communications and Equipment	0.0%	NA	NA	1.0%	11%	88.8%	0.6%	94%	6.2%
Government Education Services	0.0%	NA	NA	1.0%	85%	15.2%	1.0%	87%	13.4%
Residential and Non-Residential Buildings	0.0%	NA	NA	0.8%	80%	19.5%	1.2%	90%	10.4%
Banking Financial Services	0.0%	NA	NA	0.0%	83%	16.7%	3.8%	89%	10.6%
Others	0.0%	NA	NA	21.5%	NA	NA	31.3%	NA	NA
Final Consumption	37.2%	100%	0.0%	39.1%	99%	1.2%	13.5%	93%	7.3%
Household Consumption	0.0%	NA	NA	1.3%	81%	18.9%	8.5%	89%	10.6%
LNPR Consumption	0.0%	NA	NA	0.0%	NA	NA	0.0%	NA	NA
Government Consumption	0.0%	NA	NA	0.0%	NA	NA	0.0%	NA	NA
Gross Fixed Capital Formation	0.0%	NA	NA	0.0%	NA	NA	0.0%	NA	NA
Inventory Change	-1.3%	100%	0.0%	1.1%	81%	18.9%	0.8%	89%	10.6%
Exports of Goods (F.o.b)	38.5%	100%	0.0%	36.7%	100%	0.0%	4.2%	100%	0.0%
Services Exports	0.0%	NA	NA	0.0%	NA	NA	0.0%	NA	NA

Source: Statistics Indonesia, Bloomberg, Permata Institute for Economic Research

The majority of the Paper and Paper Products Industry centers are located on the island of Java. In terms of the value of output produced, as seen from the GDP of the Paper, Paper Products, Printing, and Media Reproduction Sector, four provinces in Java rank among the top five provinces with the largest output: East Java, West Java, Banten, and DKI Jakarta. These four provinces account for 62.6% of the total output of the Paper Industry in Indonesia. Meanwhile, another dominant province is Riau in Sumatra, which holds a 21.0% share of the total output.

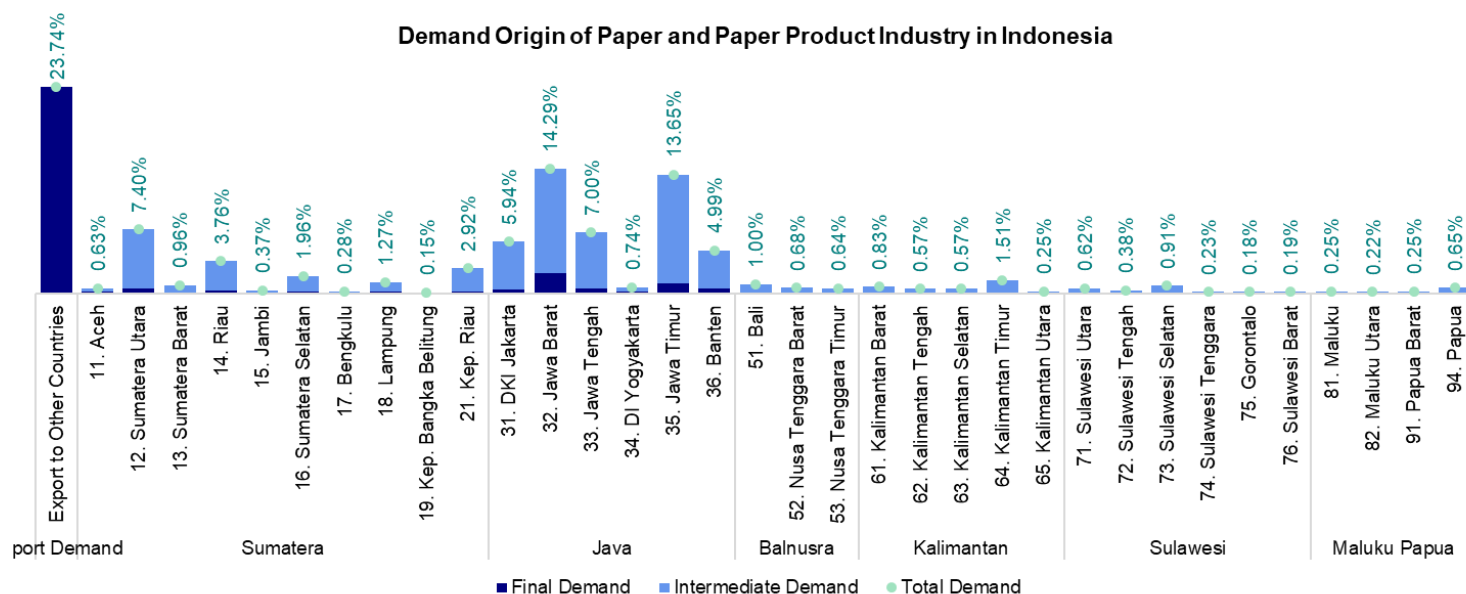
Paper, Paper Product, Printing, and Recorded Media Industry GDP (2022) Share by Province (%)



Source: Statistics Indonesia, Bloomberg, Permata Institute for Economic Research

The production hubs of the Paper Industry in Java correspond with the majority of the domestic demand originating from Java. The highest domestic demand for paper industry products is in West Java, contributing 14.3% to the total demand, followed by East Java at 13.65%. The structure of this demand is predominantly intermediate, suggesting that the products from the paper sector are reused as raw materials by other industries. Among these industries are the Paper Industry itself (further down the supply chain), the Tobacco Industry, and the Food and Beverage Industry.

Demand Origin of Paper and Paper Product Industry in Indonesia



Demand of Paper and Paper Products in Top 10 Provinces	Share (%)
32. West Java	14.3%
Paper and Paper Goods Industry, Printing and Recording Media Reproduction	2.8%
Household Consumption	2.1%
Education Services	1.7%
35. East Java	13.7%
Paper and Paper Goods Industry, Printing and Recording Media Reproduction	2.6%
Tobacco Processing Industry	1.6%
Food and Beverage Industry	1.3%
12. North Sumatra	7.4%
Paper and Paper Goods, Printing and Recording Media Reproduction Industry	1.3%
Construction	0.8%
Household Consumption	0.6%
33. Central Java	7.0%
Wholesale and Retail Trade, Not Cars and Motorcycles	1.5%
Paper and Paper Goods Industry, Printing and Recording Media Reproduction	1.3%
Tobacco Processing Industry	0.8%
31. DKI Jakarta	5.9%
Paper and Paper Goods, Printing and Recording Media Reproduction Industry	1.0%
Construction	0.9%
Financial Intermediary Services Other than Central Bank	0.6%

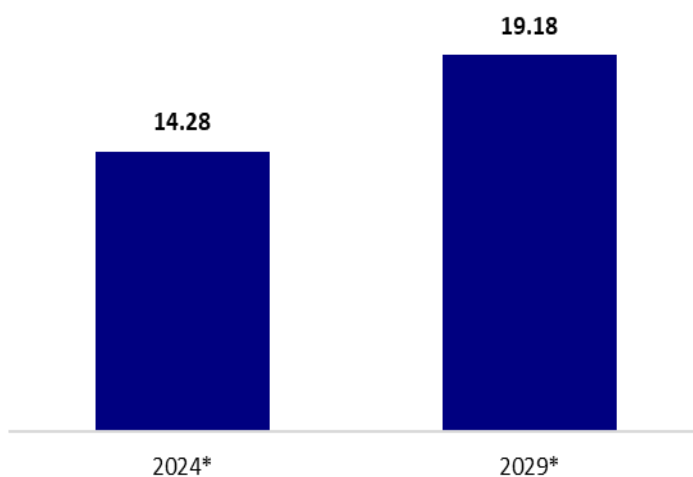
Demand of Paper and Paper Products in Top 10 Provinces	Share (%)
36. Banten	5.0%
Paper and Paper Goods Industry, Printing and Recording Media Reproduction	2.4%
Household Consumption	0.5%
Wholesale and Retail Trade, Not Cars and Motorcycles	0.5%
14. Riau	3.8%
Paper and Paper Goods Industry, Printing and Recording Media Reproduction	2.6%
Wholesale and Retail Trade, Not Cars and Motorcycles	0.2%
Household Consumption	0.2%
21. Riau Kep.	2.9%
Paper and Paper Goods Industry, Printing and Recording Media Reproduction	0.5%
Air Transportation	0.4%
Government Administration, Defense and Compulsory Social Security	0.4%
16. South Sumatra	2.0%
Paper and Paper Goods Industry, Printing and Recording Media Reproduction	0.4%
Wholesale and Retail Trade, Not Cars and Motorcycles	0.3%
Household Consumption	0.2%
64. East Kalimantan	1.5%
Wholesale and Retail Trade, Not Cars and Motorcycles	0.3%
Paper and Paper Goods Industry, Printing and Recording Media Reproduction	0.2%
Household Consumption	0.1%



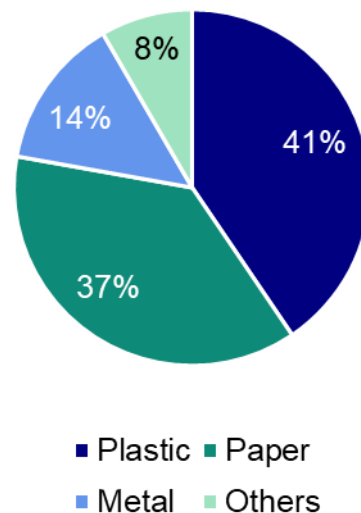
## Outlook

**The new government tax on plastic packaging could induce future demand for paper packaging in Indonesia.** Currently, plastic packaging dominates the Indonesian packaging industry, with 41% of Indonesian packaging coming from plastic, including rigid and flexible packaging. However, Indonesia's government plans to impose a tax on single-use plastics in 2024, as Indonesia is transitioning to a green economy. Furthermore, more consumers are demanding more sustainable packaging from producers. These could provide new demand for paper packaging in Indonesia. Indonesia's paper packaging market is projected to reach USD19.18 bn in 2029 from USD14.28 bn in 2024 or grow at 6% annually. It indicates that demand for paper packaging would remain solid in the next few years.

**Indonesia Paper Packaging Market  
(USD Bn)**



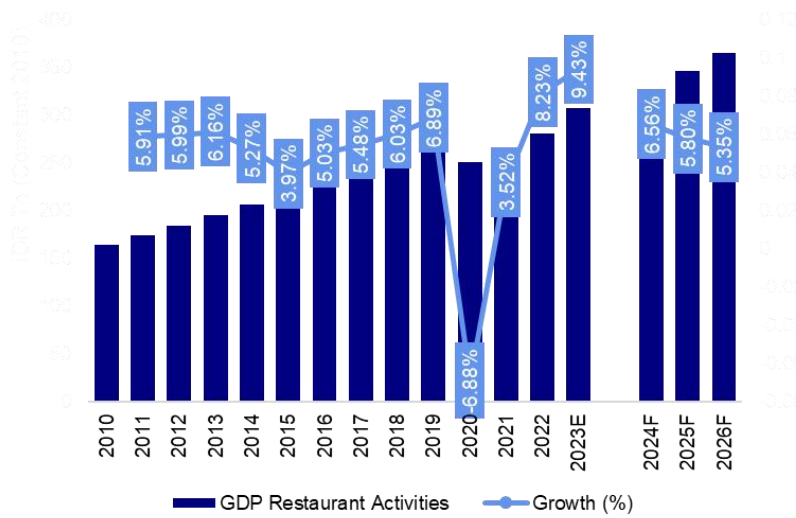
**Indonesia Packaging Market by Type, 2019  
(%)**



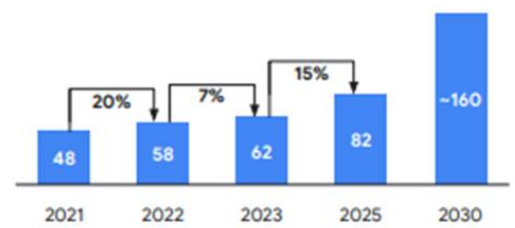
Source: Mordor Intelligence, Frost and Sullivan

**The development of e-commerce and food delivery in Indonesia have become some of the main drivers for paper packaging consumption.** According to Google, Temasek, and Bain's e-Conomy SEA 2023 report, Indonesian e-commerce Gross Merchandise Value (GMV) is estimated to reach USD62 bn, or grow 7% from 2022. The GMV for transport and food services in 2023, valued at USD7 bn, contracted -8 % after reaching USD8 bn in 2022. Nevertheless, the GDP of restaurant activities in 2023 is projected to grow by 9.43%, higher than 8.23% in 2022, signaling that restaurant activities are still accelerating. Moving forward, both e-commerce and food delivery services are predicted to continue growing significantly, in line with the digitalization trend in Indonesia. In 2025, the GMV of e-commerce is projected to be USD82 bn, while transport and food service reached USD9 bn, which could spur demand for paper packaging.

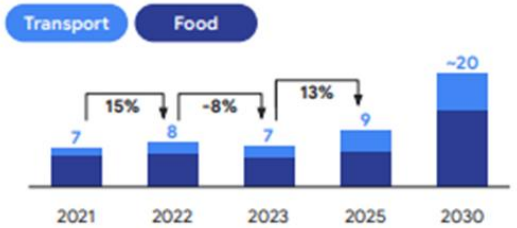
### Food and Beverages Provider GDP Growth



### E-commerce

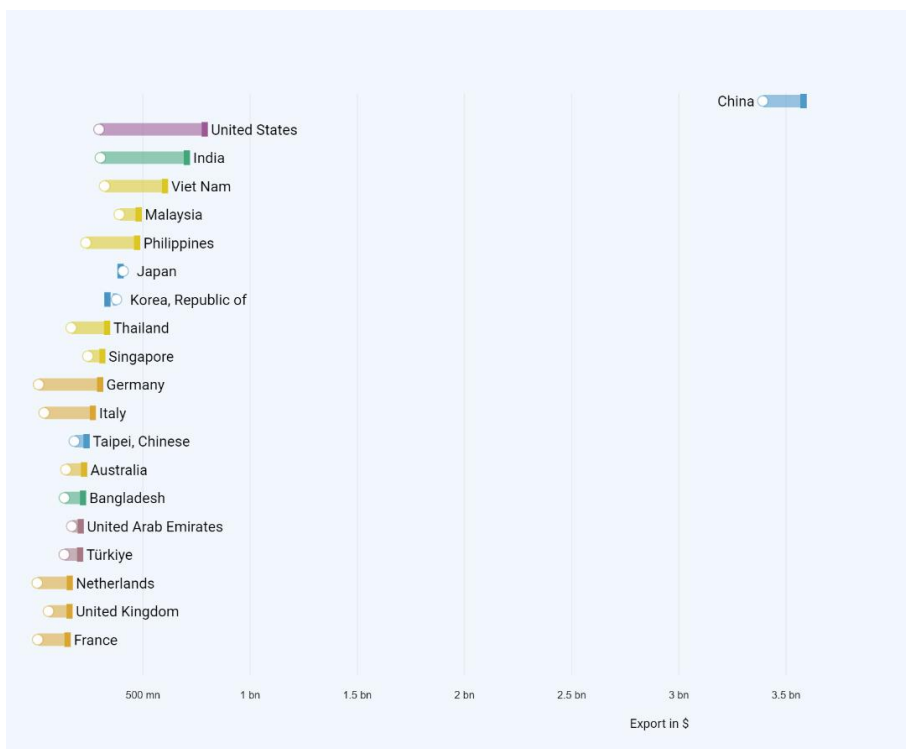


### Transport & food



Source: Statistics Indonesia, Google, Temasek, & Bain

**Export markets also provide further opportunities for Indonesia’s paper and paper products to grow, as Indonesia’s paper exports are still below its potential level.** According to Intracen, Indonesian paper product export still has the potential to increase in many countries, including China, the United States, India, and Vietnam. Currently, Indonesia has successfully expanded its export market share for Pulp over the last 20 years, from 3.6% in 2023 to 6.3% in 2022. On the other hand, Indonesian paper products’ share has remained relatively stagnant as China’s dominance in the global paper products market increased. Nevertheless, as Indonesia’s export value is still below its potential level, the opportunity for Indonesian paper products export to increase remains open.



Markets with potential for Indonesia's exports of Paper products

Legend

- Export potential
- Actual exports
- Potential to actual exports gap

- East Asia
- Southeast Asia
- EU & West Europe
- South Asia
- North America
- Middle East
- Pacific

ITC Export Potential Map  
[exportpotential.intracen.org](http://exportpotential.intracen.org)

Source: Trademap

# Thank you!

*Permata Institute for Economic Research*

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