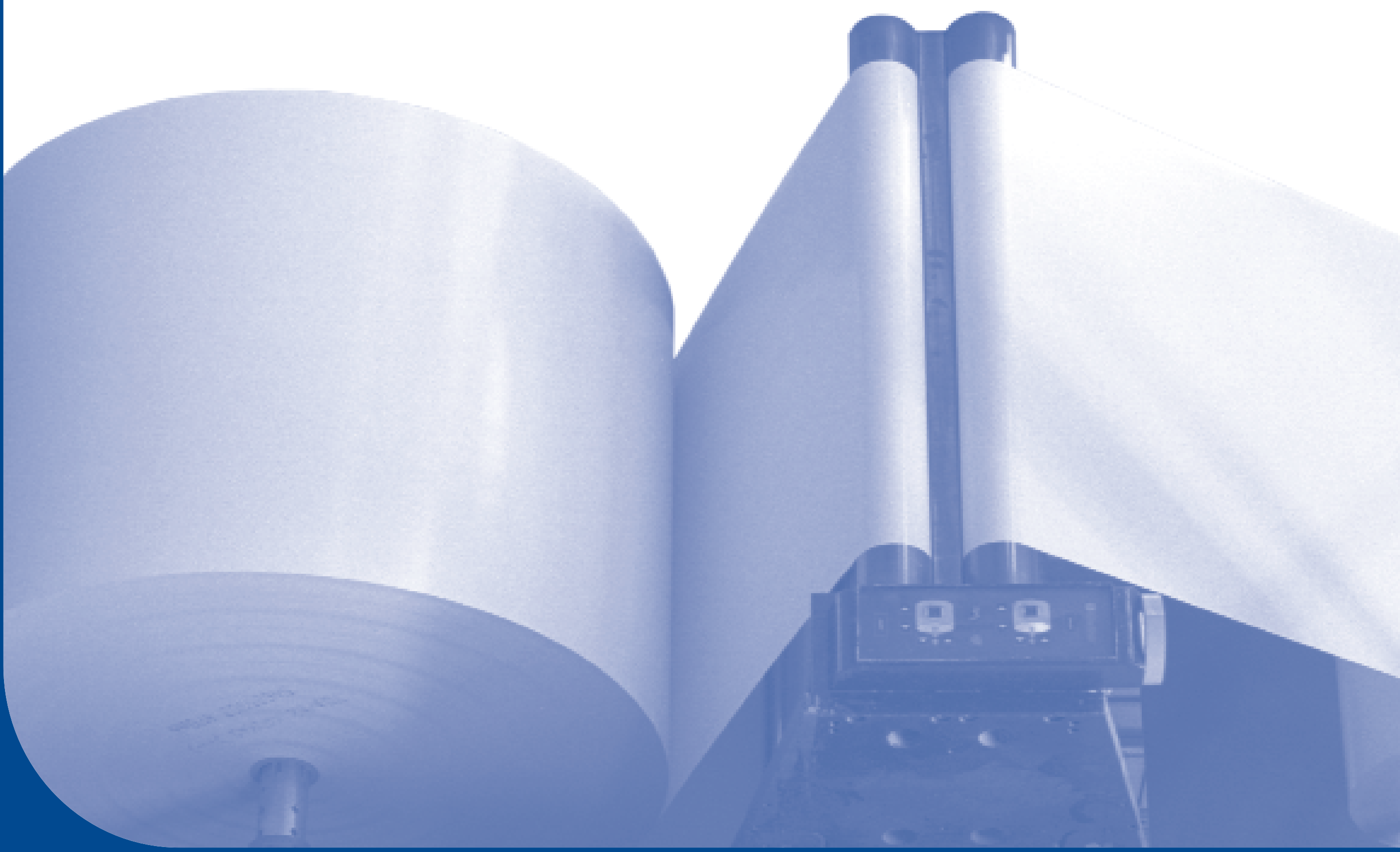
EMGE
Paper Industry Consultants

WORLD GRAPHIC PAPERS

SPRING 2024



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Sources and Acknowledgement

This **EMGE WORLD GRAPHIC PAPERS (WGP)** report contains data and **5-year forecasts** for paper demand, supply and trade around the world.

To compile these reports, we have used an extensive range of sources, including all published information available to EMGE & Co. Ltd. In addition to published data, we have referred to much industry data, which companies have been willing to share with us non-confidentially. Furthermore, we have applied our own market research resources to gather additional information.

The EMGE databases are updated daily. We publish these long-term forecasts twice a year (Spring/Summer and Autumn/Winter), with new data and revised 5-year forecasts.

The forecast timescale in this report is 2023 to 2028.

Definitions

Paper activity data are based on Volumes as sold, measured in metric tonnes (data have been converted from short tons to metric tonnes where appropriate).

The grades referred to in this study encompass Graphic Paper grades as described below in their respective definitions *(some regional differences in definition do exist).*

Coated Woodfree (CWF) **-** includes coated Woodfree printing & writing papers (<10% mechanical pulp), generally in the basis weight range 80-300gsm; both 1 & 2-side coated free in sheets & reels are included.

Uncoated Woodfree (UWF) **-** includes uncoated Woodfree printing & writing papers (<10% mechanical pulp), generally in the basis weight range 60-150gsm; in folio sheets, reels and cut-size, covering both bulk grades and uncoated specialities.

Coated Mechanical (CM) **-** includes offset and gravure coated woodcontaining printing & writing papers (>10% mechanical pulp), generally in the basis weight range 54-80gsm; but also includes ultra-lightweight coateds & heavyweight coated woodcontaining (as well as LWC & MWC) in sheets & reels.

Uncoated Mechanical (UM) **-** includes offset and gravure uncoated woodcontaining printing & writing papers, generally in the basis weight range >54gsm (e.g. SC Magazine), but including Directory, Improved Newsprint and other lightweight grades.

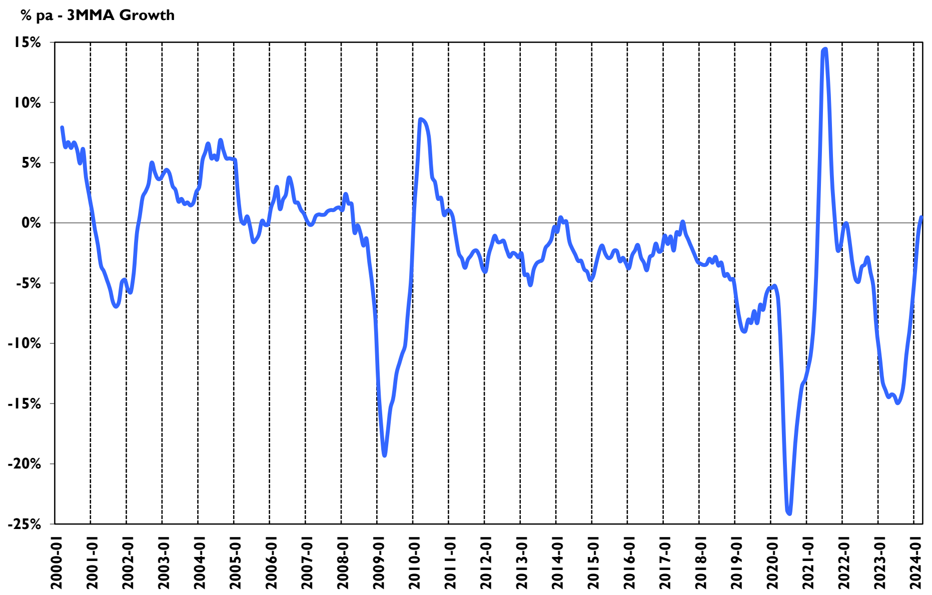
Newsprint **-** encompasses Standard Newsprint, between 40 – 48.8 gsm, up to brightness 59° ISO (some regional differences in definition do exist).

Coated =	Coated Mechanical + Coated Woodfree
Woodfree =	Uncoated Woodfree + Coated Woodfree
Printing & Writing (PW) =	Uncoated Mechanical + Coated Mechanical + Coated Woodfree + Uncoated Woodfree
Graphic Paper =	Printing & Writing + Newsprint
Demand / Consumption -	Calculated as Production + Imports - Exports
Production / Output -	Paper mill saleable production
Trade -	Net Exports, i.e. Production - Consumption
Capacity -	Annual Machine Capacity (technical, not market, conditions)
Operating Ratio -	Theoretical Ratio of Production to Capacity
PM -	Paper Machine
tpa –	Tonnes per annum (capacity)

Details of Country groupings in the Regional Tables are shown in the Country Data Worldwide section.

Introduction

FIGURE 1. WORLD GRAPHIC PAPER DEMAND (% 3MMA)



EMGE's WORLD GRAPHIC PAPERS (WGP) report provides a unique and comprehensive database of world markets, assessing the current situation and the market outlook to create an objective update of the prospects for world Graphic Paper markets – i.e. **Coated Woodfree**, **Uncoated Woodfree**, **Coated Mechanical**, **Uncoated Mechanical** (including Improved Newsprint) and (Standard) **Newsprint**.

The report analyses the latest data and developments in the markets, reviews demand prospects and provides updated forecasts of **Demand**, **Trade**, **Output**, **Capacity** and **Operating Ratios**, by paper grade, for each region and globally. The forecast timescale is 2023 to 2028.

We also provide **country-by-country data for 2023**. In addition, WGP incorporates the latest capacity changes, investments and M&A activity. The report provides detailed rankings of **Leading Suppliers**, by paper grade, region and total. Great care has been taken to assess machine capacity in detail. The capacity data used are based on announced, financed and confirmed plans, as well as some assumptions and forecasts made by EMGE (e.g. unspecified closures). The report provides additional information on all announced plans, whether decided or not (see tables of Machine Investment Listings).

EMGE & Co. Ltd. (SPRING 2024)

Forecast Summary

Recent Events

Following the inflation- and cost-driven run-up to record-high paper prices in 2022, we witnessed a classic price/inventory downcycle that continued through most of 2023, with buyers emptying their inventories in the race to the bottom of the price trough. This caused global Printing & Writing Paper Demand to slump by -12% last year. For historical context, that was the second biggest annual percentage drop ever - worse than the global financial crisis in 2009 (-11%) and second only to the COVID-19 panic of 2020 (-14%).

TABLE 1. WORLD GRAPHIC PAPER DEMAND BY GRADE

2023 (% pa)				
2023	**W. Europe**	**N. America**	**Japan**	**World**
Coated Woodfree	-30%	-37%	-10%	-16%
Uncoated Woodfree	-21%	-21%	-6%	-7%
Coated Mechanical	-25%	-34%	-7%	-20%
Uncoated Mechanical	-21%	-29%	-10%	-22%
PW PAPERS	***-24%***	***-27%***	***-8%***	***-12%***
Newsprint	***-21%***	***-20%***	***-10%***	***-15%***
GRAPHIC PAPERS	***-23%***	***-26%***	***-8%***	***-13%***

But the downcycle now appears to be over.

Market list pulp prices are on the rise again, for a range of reasons including a recovering Packaging sector (see EMGE Containerboard Monitor) and tighter-than-expected supply. Prices for Woodfree Paper grades have begun to rebound in Europe and America and even though most paper market sectors remain oversupplied at the global level, it would seem that prices have bottomed out.

There has also been some concern about shipping routes, such as the Suez and Panama Canals, due to conflicts and weather troubles. As such, some buyers have been rebuilding their inventories, temporarily causing artificially strong demand. This has caused the global Printing & Writing Paper demand trend to reverse, from double-digit falls as recently as Q3 2023, to a breakthrough into growth in early 2024.

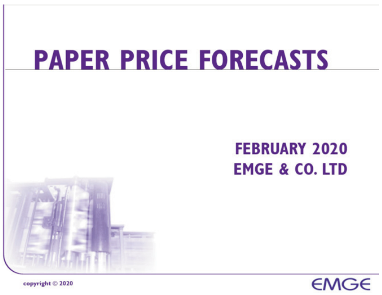
EMGE SERVICES

We provide a range of forecasts and support services to assist you in your planning and budgeting. These services include price forecasts, demand-supply forecasts and other market reports.

EMGE Paper Industry Consultants

If you are interested in finding out more about or purchasing any of these services, please contact **Iwan Le Moine** at **EMGE & Co. Ltd.**, by e-mail **iwan@emge.com**, or phone **+44 (0) 1872 581000.**

Publication Papers & Prices

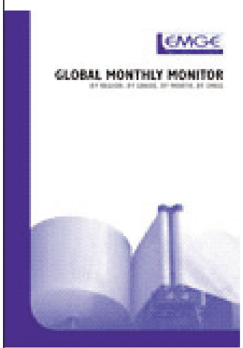


Regions:	Germany UK USA
Paper Grades:	Newsprint, LWC, SC
Information:	Prices Market Analysis Demand Capacity Changes Supply/Demand Balance
Time Period:	3 Years Ahead

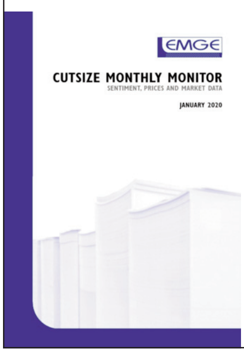
Regions:	Global
Paper Grades:	Newsprint
Information:	Market Analysis Demand Capacity Changes Supply/Demand Balance Leading Suppliers List
Time Period:	5 Years Ahead Relevant History

Regions:	Global
Paper Grades:	Newsprint
Information:	Latest Pricing Demand Capacity Changes Supply/Demand Balance Market Analysis
Time Period:	Current Month

Monthly Monitors

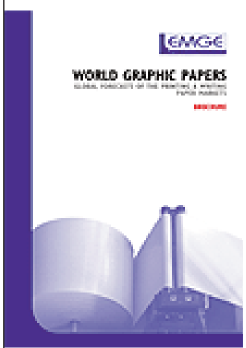


Regions:	Global
Paper Grades:	Coated Woodfree Uncoated Woodfree Coated Mechanical Uncoated Mechanical
Information:	Demand & Drivers Shipments Capacity Supply/Demand Balance Prices
Time Period:	Current Month Recent History

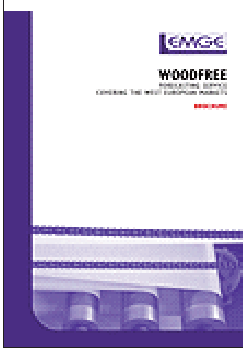


Regions:	Western Europe
Paper Grades:	UWF Cut Size
Information:	Prices Inventories Demand Delivery Times Capacity Changes Supply/Demand Balance
Time Period:	Current Month Recent History

Long-Term Forecasts



Regions:	Global
Paper Grades:	Coated Woodfree Uncoated Woodfree Coated Mechanical Uncoated Mechanical
Information:	Market Analysis Demand Capacity Changes Supply/Demand Balance Leading Suppliers List
Time Period:	5 Years Ahead Relevant History



Regions:	Western Europe Eastern Europe Russia
Paper Grades:	Coated Woodfree Uncoated Woodfree
Information:	Market Analysis Demand Capacity Changes Supply/Demand Balance Leading Suppliers List
Time Period:	5 Years Ahead Relevant History

Market research ▪ Market forecasts ▪ Pre-investment surveys ▪ Acquisition appraisals ▪ Image studies ▪ Product positioning strategies