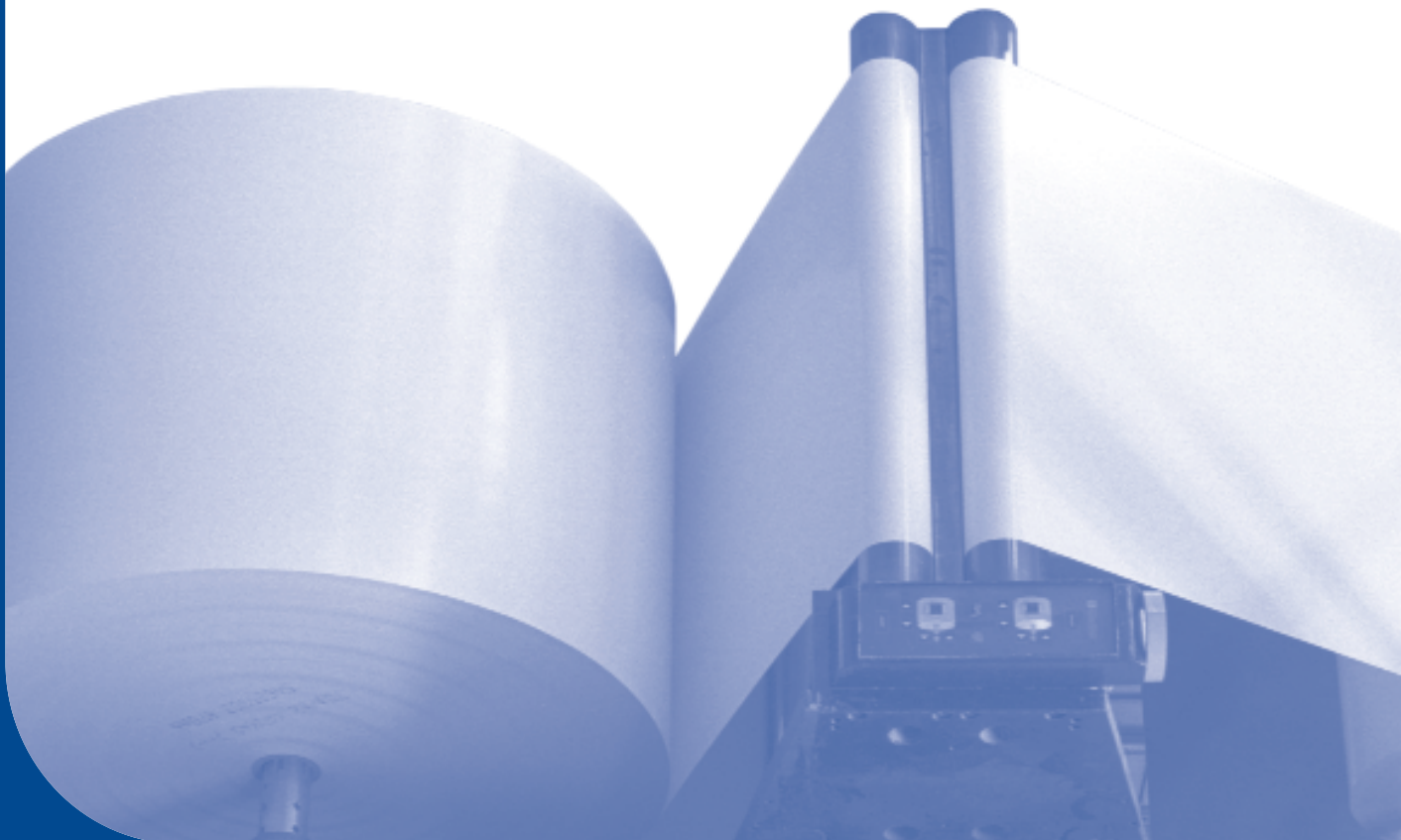




WORLD GRAPHIC PAPERS

MARCH/APRIL 2017



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Table of contents

	Page
March/April 2017 Update	i
Summary of the forecasts	iii
1. Demand	1
Caveats	18
2. Trade	19
3. Supply	21
3.1. <i>Supply Data - Base Capacity</i>	22
3.2. <i>Supply Data – Forecast Capacity</i>	25
3.3. <i>Machine Closures (Base Capacity)</i>	28
3.4. <i>Machine Investments (Base Capacity)</i>	28
3.5. <i>Individual Machine Investment Plans</i>	29
4. Supply-Demand Balance	37
4.1. <i>Forecast Capacity Operating Ratios – Global Pr/Wr</i>	37
5. LEADING SUPPLIERS – 2017	39
5.1. <i>Leading Suppliers – Coated Woodfree Papers</i>	39
5.2. <i>Leading Suppliers – Uncoated Woodfree Papers</i>	41
5.3. <i>Leading Suppliers – Coated Mechanical</i>	43
5.4. <i>Leading Suppliers – Uncoated Mechanical</i>	45
5.5. <i>Leading Suppliers – Coated Papers</i>	47
5.6. <i>Leading Suppliers – Woodfree Papers</i>	49
5.7. <i>Leading Suppliers – Magazine Paper Suppliers</i>	51
5.8. <i>Leading Suppliers – Printing & Writing</i>	53
5.9. <i>Leading Suppliers – N.America</i>	56
5.10. <i>Leading Suppliers – Europe</i>	57
5.11. <i>Leading Suppliers – Rest of the World</i>	58
5.12. <i>Leading Suppliers – Total World</i>	59
5.13. <i>Notes on Leading Suppliers</i>	60
6. Coated Woodfree - Forecasts	61
6.1. <i>Demand - Coated Woodfree</i>	61
6.2. <i>Trade flows - Coated Woodfree</i>	62
6.3. <i>Output - Coated Woodfree</i>	62
6.4. <i>Capacity Assumptions - Coated Woodfree</i>	64
6.5. <i>Capacity and Operating Rates - Coated Woodfree</i>	65

Table of contents (continued)

7. Uncoated Woodfree – Forecasts	67
7.1. <i>Demand - Uncoated Woodfree</i>	67
7.2. <i>Trade flows - Uncoated Woodfree</i>	68
7.3. <i>Output - Uncoated Woodfree</i>	68
7.4. <i>Capacity Assumptions - Uncoated Woodfree</i>	70
7.5. <i>Capacity and Operating Rates - Uncoated Woodfree</i>	71
8. Coated Mechanical - Forecasts	73
8.1. <i>Demand - Coated Mechanical</i>	73
8.2. <i>Trade flows - Coated Mechanical</i>	74
8.3. <i>Output - Coated Mechanical</i>	74
8.4. <i>Capacity Assumptions - Coated Mechanical</i>	76
8.5. <i>Capacity and Operating Rates - Coated Mechanical</i>	77
9. Unc. Mechanical – Forecasts	79
9.1. <i>Demand - Uncoated Mechanical</i>	79
9.2. <i>Trade flows - Uncoated Mechanical</i>	80
9.3. <i>Output - Uncoated Mechanical</i>	80
9.4. <i>Capacity Assumptions - Uncoated Mechanical</i>	82
9.5. <i>Capacity and Operating Rates - Uncoated Mechanical</i>	83
10. Newsprint - Forecasts	85
11. Country Data World-wide	87
11.1. <i>Country Data World-wide, Coated Woodfree</i>	87
11.2. <i>Country Data World-wide, Uncoated Woodfree</i>	91
11.3. <i>Country Data World-wide, Coated Mechanical</i>	95
11.4. <i>Country Data World-wide, Uncoated Mechanical</i>	99
12. Supply Outlook	103
12.1. <i>EMGE Forecast Capacity Projections – by Year and region</i>	110
Appendices – Pr&Wr Papers	113

List of Tables and Charts

	<i>Page</i>
1. <i>World P&W Paper Demand vs.OECD Leading Indicators</i>	<i>i</i>
2. <i>Global Paper Market Summary</i>	<i>iv</i>
3. <i>Demand Forecast, World by Region, Total Pr&Wr</i>	<i>1</i>
4. <i>Recent Pr/Wr Paper Demand Growth, Global</i>	<i>3</i>
5. <i>Share Price Indices</i>	<i>6</i>
6. <i>Chinese Producer Prices Indices (PPI)</i>	<i>7</i>
7. <i>GDP Growth - Russia</i>	<i>8</i>
8. <i>Global Growth in Adspend by Medium</i>	<i>10</i>
9. <i>Adspend Growth – Magazine vs.Total (China/HK)</i>	<i>12</i>
10. <i>US Book Sales Growth</i>	<i>14</i>
11. <i>Global Pr/Wr Demand Growth by Region, 2016-21</i>	<i>16</i>
12. <i>Paper Demand, Developed vs Emerging Nations</i>	<i>17</i>
13. <i>Trade - World P&W Net Exports by Region</i>	<i>19</i>
14. <i>Major Paper Capacity Changes (2015+)</i>	<i>21</i>
15. <i>Capacity Growth Trends – Base Capacity</i>	<i>22</i>
16. <i>Base Capacity by Region</i>	<i>23</i>
17. <i>Base Operating Rates, by Region, Pr & Wr Papers</i>	<i>24</i>
18. <i>Capacity – Unspecified Changes (Pr/Wr Papers)</i>	<i>25</i>
19. <i>Capacity Forecast Changes, by Region – PW Papers</i>	<i>26</i>
20. <i>Forecast Capacity Growth, World, by Grade</i>	<i>26</i>
21. <i>Forecast (Base + Unspecified) Capacity by Region</i>	<i>27</i>
22. <i>Global P&W Paper Machines Closures</i>	<i>28</i>
23. <i>Global P&W Paper Machines Investments</i>	<i>28</i>
24. <i>Investment Listing – Coated Woodfree</i>	<i>30</i>
25. <i>Investment Listing – Uncoated Woodfree</i>	<i>32</i>
26. <i>Investment Listing – Coated Mechanical</i>	<i>34</i>
27. <i>Investment Listing – Uncoated Mechanical</i>	<i>35</i>
28. <i>Forecast Operating Rates, World, by Grade</i>	<i>37</i>
29. <i>Operating Rates, Forecast vs.Base, Prwr Papers</i>	<i>38</i>
30. <i>Leading Suppliers - 2017 Capacity, Coated Woodfree Papers</i>	<i>39</i>
31. <i>Leading Ctd W'dfree Paper Suppliers - World and Regions</i>	<i>40</i>
32. <i>Leading Suppliers - 2017 Capacity, Unc.Woodfree Papers</i>	<i>41</i>
33. <i>Leading Unc.W'dfree Suppliers - World and Regions</i>	<i>42</i>
34. <i>Leading Suppliers – 2017 Capacity, Coated Mech.</i>	<i>43</i>
35. <i>Leading Ctd Mechanical Suppliers - World and Regions</i>	<i>44</i>
36. <i>Leading Suppliers - 2017 Capacity, Unc.Mech.</i>	<i>45</i>
37. <i>Leading Unc. Mech. Suppliers - World and Regions</i>	<i>46</i>

List of Tables and Charts (continued)

38.	<i>Leading Suppliers - 2017 Capacity, Total Coated</i>	47
39.	<i>Leading Coated Paper Suppliers - World and Regions</i>	48
40.	<i>Leading Suppliers - 2017 Capacity, Woodfree Papers</i>	49
41.	<i>Leading Woodfree Paper Suppliers - World and Regions</i>	50
42.	<i>Leading Suppliers - 2017 Capacity, Magazine Papers</i>	51
43.	<i>Leading Magazine Paper Suppliers - World and Regions</i>	52
44.	<i>Leading Suppliers - 2017 Capacity, Printing and Writing</i>	53
45.	<i>Leading Pr/Wr Paper Suppliers - World and Regions</i>	54
46.	<i>Top 5 Pr/Wr Suppliers – 1990 vs.2000 vs.2017</i>	55
47.	<i>Leading Paper Suppliers – N.America</i>	56
48.	<i>Leading Paper Suppliers – Europe</i>	57
49.	<i>Leading Paper Suppliers – Rest of The World</i>	58
50.	<i>Leading Paper Suppliers – Total</i>	59
51.	<i>Notes on Leading Suppliers</i>	60
52.	<i>Demand Forecast, World by Region, Coated Woodfree</i>	61
53.	<i>Trade Forecast, World by Region, Coated Woodfree</i>	62
54.	<i>Output Forecast, World by Region, Coated Woodfree</i>	62
55.	<i>World Demand-Supply, Coated Woodfree</i>	63
56.	<i>EMGE Capacity Assumptions, Coated Woodfree</i>	64
57.	<i>Operating Rates, Forecast vs.Base, Ctd.W'dfree</i>	64
58.	<i>Base Capacity, by Region, Coated Woodfree</i>	65
59.	<i>Base Operating Rates, by Region, Coated Woodfree</i>	65
60.	<i>Forecast Capacity, by Region, Ctd Woodfree</i>	66
61.	<i>Forecast Operating Rates, by Region, Ctd.W'dfree</i>	66
62.	<i>Demand Forecast, World by Region, Unc.W'dfree</i>	67
63.	<i>Trade Forecast, World by Region, Unc.W'dfree</i>	68
64.	<i>Output Forecast, World by Region, Unc.W'dfree</i>	68
65.	<i>World Demand-Supply, Uncoated Woodfree</i>	69
66.	<i>EMGE Capacity Assumptions, Uncoated Woodfree</i>	70
67.	<i>Operating Rates, Forecast vs.Base, Unc.W'dfree</i>	70
68.	<i>Base Capacity, by Region, Unc.W'dfree</i>	71
69.	<i>Base Operating Rates, by Region, Unc.W'dfree</i>	71
70.	<i>Forecast Capacity, by Region, Unc.W'dfree</i>	72
71.	<i>Forecast Operating Rates, by Region, Unc.W'dfree</i>	72
72.	<i>Demand Forecast, World by Region, Ctd Mechanical</i>	73
73.	<i>Trade Forecast, World by Region, Ctd Mechanical</i>	74
74.	<i>Output Forecast, World by Region, Ctd Mechanical</i>	74
75.	<i>World Demand-Supply, Coated Mechanical</i>	75
76.	<i>EMGE Capacity Assumptions, Coated Mechanical</i>	76
77.	<i>Operating Rates, Forecast vs.Base, Ctd Mech.</i>	76

List of Tables and Charts (continued)

78. Base Capacity, by Region, Ctd Mechanical	77
79. Base Operating Rates, by Region, Ctd Mechanical	77
80. Forecast Capacity, by Region, Ctd Mech.	78
81. Forecast Operating Rates, by Region, Ctd Mech.	78
82. Demand Forecast, World by Region, Unc.Mech.	79
83. Trade Forecast, World by Region, Unc.Mech.	80
84. Output Forecast, World by Region, Unc.Mech.	80
85. World Demand-Supply, Uncoated Mechanical	81
86. EMGE Capacity Assumptions, Uncoated Mechanical	82
87. Operating Rates, Forecast vs.Base, Unc.Mech.	82
88. Base Capacity, by Region, Unc.Mech.	83
89. Base Operating Rates, by Region, Unc.Mech.	83
90. Forecast Capacity, by Region, Unc.Mech.	84
91. Forecast Operating Rates, by Region, Unc.Mech.	84
92. Demand, Trade, Output & Capacity by Country, Cwf	87
93. Demand, Trade, Output & Capacity, Unc.Woodfree Papers	91
94. Demand, Trade, Output & Capacity, Coated Mech.	95
95. Demand, Trade, Output & Capacity, Uncoated Mech.	99
96. Capacity Changes by Country, Coated Woodfree Papers	104
97. Capacity Changes by Country, Unc.W'dfree Papers	105
98. Capacity Changes by Country, Coated Mech.	107
99. Capacity Changes by Country, Unc.Mech.	108
100. Capacity Forecast Changes, by Region - Cwf	110
101. Capacity Forecast Changes, by Region - Uwf	110
102. Capacity Forecast Changes, by Region - Cm	111
103. Capacity Forecast Changes, by Region - Um	111
104. Capacity Forecast Changes, by Region - Coated	112
105. Capacity Forecast Changes, by Region - PW Papers	112
106. Demand Forecast, World by Region, Total Pr&Wr	113
107. Trade Forecast, World by Region, Total Pr&Wr	114
108. Output Forecast, World by Region, Total Pr&Wr	114
109. World Demand-Supply, Printing & Writing Papers	115
110. EMGE Capacity Assumptions, Prwr Papers	116
111. Operating Rates, Forecast vs.Base, Prwr Papers	116
112. Base Capacity, by Region, Pr & Wr Papers	117
113. Base Operating Rates, by Region, Pr & Wr Papers	117
114. Forecast Capacity, by Region, Pr&Wr Papers	118
115. Forecast Operating Rates, by Region, Pr&Wr Papers	118
116. Demand, Trade, Output & Capacity, Total Pr&Wr	119

Sources and Acknowledgement

The EMGE WORLD GRAPHIC PAPER report contains data and 5-year forecasts for paper demand, supply and price 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 made reference 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 (March/April and September/October), with new data and revised 5-year forecasts.

The forecast timescale in this report is 2016 to 2021.

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 Printing/Writing Paper grades as described below in their respective definitions (*some regional differences in definition do exist*). A separate study on “World Newsprint Markets” is also available.

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.

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.

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 coated & heavyweight coated woodcontaining (as well as LWC & MWC) in sheets & reels.

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

Details of Country groupings in the Regional Tables are shown in the Country Data World-wide section.

Report Contents

EMGE's WORLD GRAPHIC PAPER report (WGP), provides a unique and comprehensive database of world markets, assessing the current situation and the market outlook for the complete range of products in all world regions.

The aim is to provide an objective update of the prospects for world graphic paper markets – i.e. Coated Woodfree, Uncoated Woodfree, Coated Mechanical and Uncoated Mechanical (including Improved Newsprint).

The WGP report provides revised and updated forecasts of Demand, Trade, Output, Capacity and Operating Ratios. The report covers the future global and regional demand-supply balance, by paper grade. The forecast timescale is 2016 to 2021.

We also provide country-by-country data for 2016. In addition, the report incorporates the latest information regarding capacity changes and investments, including M&A activity.

In order to assess the impact of consolidation and changing industry structure, the report provides detailed rankings of Leading Suppliers, by grade, region and total.

As well as a comprehensive collection of market data, 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, which compare “decided” and “undecided” machines).

World Graphic Papers - a unique, global and fundamental perspective on the prospects for this important and dynamic industry.

New forecasts for Demand-Supply from 2016 to 2021.

Latest information on capacity investments and M&A changes.

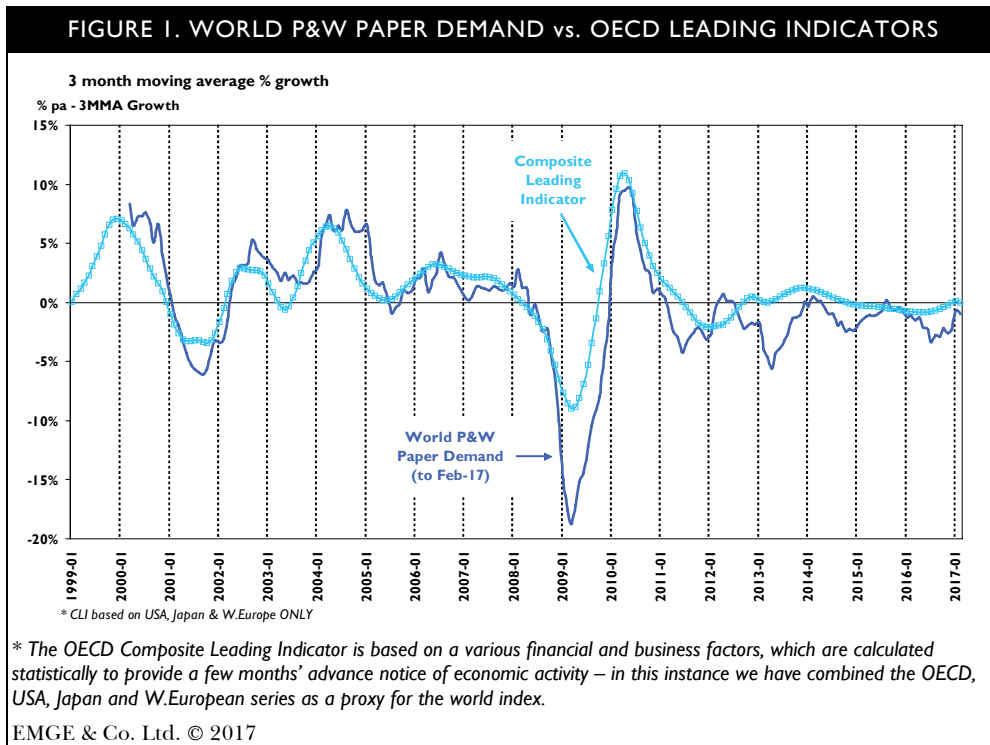
Detailed rankings of Leading Suppliers, by grade and region and EMGE's Pi-HHi – Herfindahl Hirschman Index.

Detailed lists of capacity changes and additional information on all announced plans.

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MARCH/APRIL 2017

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March/April 2017 Update



The **EMGE WORLD GRAPHIC PAPER FORECAST** report is a comprehensive, unique and independent assessment of the future for the paper industry. The latest report ("*EMGE World Graphic Papers MARCH / APRIL 2017*") is an update in the **EMGE** series of WORLD GRAPHIC PAPER reports.

This report covers fundamental global market issues for all grades of Printing and Writing Paper, in each region of the World.

Based on all the data available and combining the latest developments in the markets, we review the demand prospects and comprehensively assess producer capacity changes, to provide subscribers with an updated outlook for demand, trade, investment, capacity, operating rates and leading company market shares, for the world Printing and Writing paper markets, by grade and region.

(MARCH / APRIL 2017)