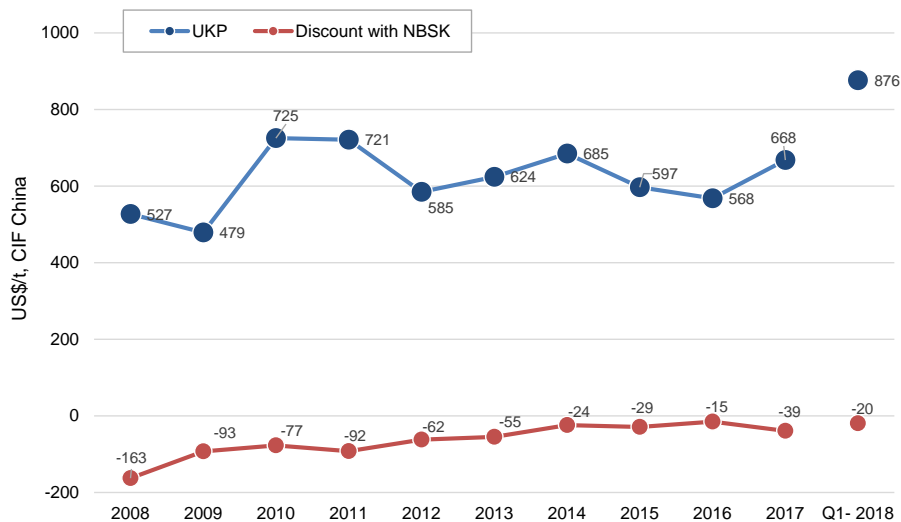


THE OUTLOOK FOR UKP SUPPLY, DEMAND AND PRICES

A multi-client report available May 2018



UKP commodity grade pulp price, CIF China (net, US\$/t)



Source: Hawkins Wright

The UKP sector is enjoying a period of sustained tightness that has raised prices to historical highs and served to depress the pricing discount commanded with bleached grades close to record lows. In April 2018 the benchmark UKP price reached \$885/t cif China (net), surpassing all previous peaks. More interestingly, the chart opposite shows that the differential between net prices of NBSK and UKP cif China narrowed to just \$20/t during Q1-2018, compared to an average discount of \$65/t over the past ten years.

The declining discount illustrates the importance of the pricing mechanism in restoring balance to undersupplied markets. Indeed, the narrower differential is starting to attract marginal UKP supply, from traditional suppliers of bleached kraft market pulp, and other swing mills. Ordinarily, one would expect this new supply to quickly restore balance. However, there are reasons to believe that on this occasion the 'UKP opportunity' may persist.

The demand prospects for the sector are clearly much improved from several years ago. Of note, increased construction activity is providing substantial support to the fibre cement grades whilst the demand for filtration/electrical grades continues to be underpinned by robust global economic growth, particularly in some emerging markets such as India. These higher margin markets have traditionally diverted tonnage away from the commodity UKP market, which during the period 2000-2012 was in a state of contraction owing to the increased utilisation of recovered fibre amongst board manufacturers.

However, even the commodity grade packaging markets are starting to exhibit strong demand growth for UKP. There are multiple drivers: the deteriorating quality of OCC, growing consumer preferences for unbleached products, a shift towards stronger, lighter weight packaging and the recent disruption in Chinese recovered fibre markets. This later point is particularly important but most likely overstated; although the recent ban on imports of mixed waste has obliged certain board manufactures to switch to virgin fibre for a portion of their fibre requirement, the scale of substitution has been very limited as the price of UKP has become prohibitively expensive for most board manufacturers.

Resurgent demand for UKP contrasts sharply with the outlook for supply. Although several companies are evaluating opportunities to increase UKP capacity through 2022, there are no major confirmed investments. It is this disparity between supply and demand which promises to keep the pricing differential with bleached grades unusually low during the years ahead. This report provides an in-depth analysis of this dynamic, focusing on demand and supply side trends, and making observations regarding price drivers and substitution.



Chapter One: Historical Demand

- The UKP market in the context of the total pulp market and global paper and board industry. Global UKP production by region.
- Shipments of UKP since 1990 to main consuming regions (North America, Latin America, East and West Europe, Japan, China, and other Asia).
- Trade matrices for 2017 showing UKP shipments by producing country to consuming country.
- End use market sizing review (paper & board, fibre cement, electrical grade & specialties) by region.

Chapter Two: Forecast Demand

- UKP demand trends by end-use market.
- Demand forecast by grade and by region, 2017-2022.

Chapter Three: UKP Supply

- Global UKP capacity by mill and by grade, 2017.
- UKP capacity outlook, 2012-2022.
- UKP and BSKP shipment-to-capacity ratio, 2014-2022.

Chapter Four: Prices

- UKP prices vs. other commodities.
- Weighted average UKP price by grade.
- UKP prices vs. NBSK and OCC.
- Price forecast to 2022.

APPENDICES

- Overview of Operation National Sword
- UKP technical characteristics

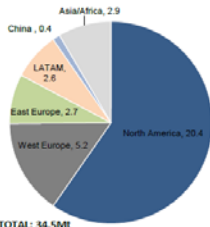
METHODOLOGY

This report has been prepared using desk research which has been supplemented by interviews with existing UKP suppliers, buyers, traders and other industry participants. We have also made full use of Hawkins Wrights existing information resources, contacts and relevant research material.



UKP market summary

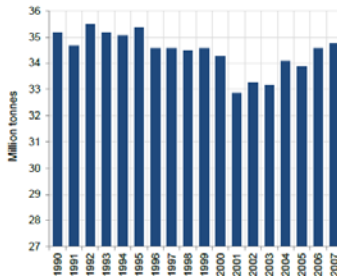
UKP production by region, 2017



TOTAL: 34.5MT

Source: Hawkins Wright

World UKP production, 1990-2017 (preliminary estimates)

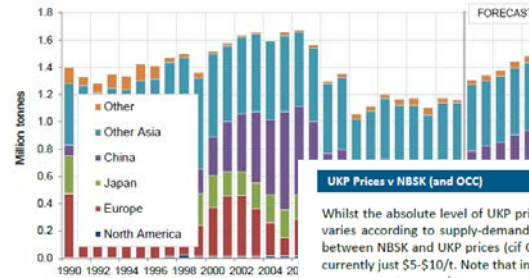


Source: Hawkins Wright

World UKP Production	1990	2000	2007	2016	Preliminary 2017	% p.a. 2007-17	% y-o-y 2017/16	Volume change	
								2007-17	2017/16
Canada	1,400	1,300	1,000	600	620	-4.7%	+3.3%	-380	+20
USA	20,000	19,200	19,400	19,800	19,850	+0.2%	+0.3%	+400	+50
CEPI	6,000	6,000	4,800	5,200	5,250	+0.9%	+1.0%	-800	+50
East Europe	2,000	2,000	2,400	2,700	2,750	+1.4%	+1.9%	+700	+50
Latin America									
China									
Other Asia									
Africa									
TOTAL									

Source: Hawkins Wright
Note: softwood grade

Demand trends by end use market: Paper & Board grade



UKP Prices v NBSK (and OCC)

Whilst the absolute level of UKP prices (in dollars) is dictated by macro-economic cycle, the differential between UKP and bleached grades varies according to supply-demand dynamics of the fibre markets and substitution trends. Over the period 2003 to 2011 the difference between NBSK and UKP prices (cif China) averaged approximately \$100/t. However, since January 2012 the gap has averaged \$35/t, and is currently just \$5-\$10/t. Note that in the Chinese resale market, UKP is now trading at a premium of RMB200-400/t to Canadian NBSK and at an even greater premium compared to lower priced bleached softwood pulps.

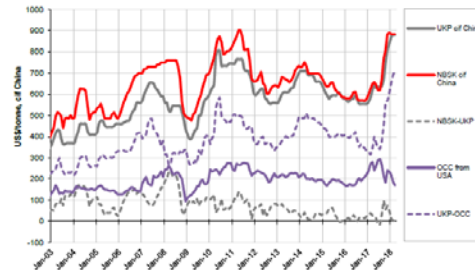
Although the record low differential between UKP and NBSK is partly due to the recent chaos in recycled fibre markets, we can observe that the grey line has been trending lower for several years. This reflects the fact that an increasingly high proportion of UKP imports are of better quality, and most suppliers have been migrating towards fibre cement and filtration grades, thereby limiting supply.

The chart also plots the price trend for OCC from the USA, cif China. Chinese OCC prices have endured a volatile 18 months largely due to the new RCF import regulations which were imposed through 2017. Prices initially spiked prior to the new regime, but have fallen back to historical lows through Q2 2018, due to trader caution. Meanwhile, local RCP prices have increased by almost 100% compared to a year ago, and some are more than double the price of imported grades. As a result of these unusual circumstances, the differential between UKP and OCC has spiked to record highs.

Board and sack	2000	2010	2016	Prelimin
North America	10	5	35	3
Europe	365	80	95	9
Japan	230	75	70	8
China	280	395	520	56
Other Asia	615	465	415	42
Other	15	35	35	2
Total	1515	1055	1170	11

Source: Hawkins Wright

UKP, NBSK and OCC prices, CIF China (net prices)



Source: Hawkins Wright

CONFIDENTIAL: The Outlook for UKP

46



SECTION ONE:

SECTION TWO: UKP D

SECTION FOUR: UKP PRICES



Availability and cost...

Available from May 16th 2018, a subscription to the *Outlook for UKP supply, demand and prices* costs £2,950.

Existing subscribers to Hawkins Wright's Outlook for market pulp service qualify for a discounted price of £2,250/yr.

The price includes an electronic copy of the main report; Hawkins Wrights responses to any (within reason) questions on global UKP markets that may arise during the year; and a presentation meetings with one of our consultants. (Such meetings are normally arranged to coincide with major industry events – for example London Pulp Week or MPA – or when a consultant is travelling in the region. However, for specially arranged meetings we reserve the right to charge travel and subsistence costs. Such costs will always be agreed in advance.)

Contact

To discuss this report or to request more information please contact Oliver Lansdell or Tom Wright at:

Hawkins Wright Ltd.

21-22 Station Point
121 Sandycombe Road, Kew,
Richmond
Surrey TW9 2AD
United Kingdom

Tel: +44 20 8747 5840

Email: oliver.lansdell@hawkinswright.com or tom.wright@hawkinswright.com Web: www.hawkinswright.com

Hawkins Wright is an independent consultancy providing a range of strategic, forecasting, market intelligence and business information services to the international forest products and bioenergy industries.

Since 1982 Hawkins Wright has provided authoritative and cost-effective services based on in-depth research of the global forest, pulp & paper and bioenergy industries. These services include private consultancy assignments covering a full range of marketing and strategic subjects as well as regular multi-client reports and newsletters.



Order form

A subscription to 'The outlook for UKP supply, demand and prices' costs £2,950 (or the equivalent in euro or US dollars). Existing subscribers to Hawkins Wright's Outlook service qualify for a discounted price of £2,250.

I would like to order the multi-client report 'The outlook for UKP supply, demand and prices'. I understand that this report is confidential to subscribers and to their wholly-owned subsidiaries. I agree to take all reasonable steps to safeguard this confidentiality.

Signed:

Name: _____

Position: _____

Company: _____

Postal address: _____

Telephone:

Email:

An invoice and payment instructions will be sent when your order is received. Payment may be made by bank transfer, cheque or credit card.

Our regular and multi-client reports and services include:

- **Pulpwatch** a monthly analysis of developments in the global market pulp industry
- **The Outlook for Market Pulp**, providing forecasts of world market pulp demand, supply, costs and prices
- **The Outlook for Dissolving Pulp**, providing forecasts of world DWP demand, supply, costs and prices
- **Defining the China Market for Pulp, Paper and Board**, a uniquely detailed analysis of the Chinese pulp and paper industry
- **Forest Energy Monitor**, covering the factors driving the rapidly expanding biomass and wood pellet markets

For more information, please visit: www.hawkinswright.com

