

**BY CARLOS JOSÉ CAETANO BACHA**

Full Professor at ESALQ/USP

E-mail: carlosbacha@usp.br

PRICE PER TON OF HARDWOOD PULP IN CHINA REACHES ITS LOWEST POINT OF THE YEAR (USD 482) IN MAY 2023

The price per ton of hardwood pulp (BEK) in China reached its lowest price of USD 482 per ton in May this year (according to Norexeco). This practically confirms the prediction published in this column last month that the price of BEK in China would be USD 480 per ton in May 2023.

Norexeco also projects that the price per ton of hardwood pulp in China will be around USD 500 in June.

Between January and June of this year, there has been a drop of almost USD 300 in the price per ton of BEK sold in China, that is, a 37.5% reduction (considering data released by Norexeco). The size of this drop varies between information sources, but all of them report a decrease in BEK prices in China in the first five months of 2023.

Price drops in US dollars also occurred in May per ton of softwood pulp (NBKSP) in China. But sources report different prices for the same product and how much they dropped. The Government of British Columbia informs that the price per ton of NBKSP in China went from USD 809 in April to USD 702 in May (13.2% reduction in just one month). And Norexeco indicates that such prices were, respectively, USD 697 and USD 642 (7.9% reduction). For June, Norexeco projects that the price per ton of NBKSP will be USD 619 in China.

Price drops per ton of hardwood pulp (BEK and BHKP) and softwood pulp (NBKSP) are also happening in Europe in May and June of this year, but at lower intensities than what's occurring in China with prices of similar products.

According to Norexeco, the ton of BEK in Europe was sold at USD 1,221 in April, USD 1,087 in May and will be USD 1,030 in June. That is, there was an 11% drop in the price of

this product in May (compared to April) and another 5.2% drop in June (compared to May).

Norexeco also reports that the price per ton of NBSKP in Europe in April 2023 was USD 1,353, USD 1,309 in May and will be USD 1,250 in June, that is, drops of 3.3% in May and 4.5% in June (compared to their previous months).

Based on the above data, we see that price reductions have been more intense for hardwood pulp than for softwood pulp in US dollars.

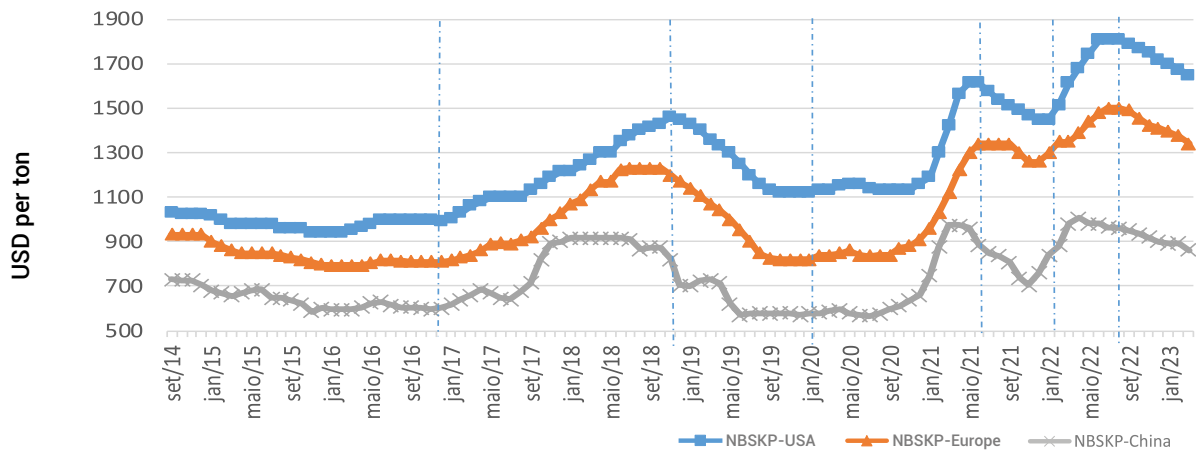
In Brazil we also see price drops in dollars per ton of hardwood pulp. The list price of BEK went from USD 1,280 in April to USD 1,181 in May and will be USD 1,051 in June. But the list price in effect in Brazil has been higher than in Europe for the same reference month.

The drop in international pulp prices is due to an increase in the supply of hardwood pulp (with the start-up of Arauco's MAPA Project in Chile and Paso de Los Toros in Uruguay), a less-rigorous winter at the beginning of this year in the Northern Hemisphere, avoiding sharper declines in NBSKP production and the economic slowdown in important economies in the Northern Hemisphere and China, impeding greater growth in pulp demand.

With pulp supplies increasing at a faster rate than demand, international pulp inventories have increased. Such is the case with pulp inventories in European ports. Europulp increased 36% in the first four months of 2023, from 1,331 thousand tons in December 2022 to 1,809 thousand tons in April 2023.

There is a general downward trend in paper prices in US dollars in international markets, particularly in the price of newsprint in the US and the price of paperboard in China.

Graph 1 - Evolution in the price per ton in USD of NBSKP in the United States, Europe and China



Source: Natural Resources Canada.

The Canadian market of wood sheets and sawn wood experienced in May vs. April, changes in opposite directions in US dollars prices for the products analyzed in this column. Increases occurred, in this period, in US dollar prices per cubic meter of plywood and OSB sheets, but a drop in the average price per m3 of sawn wood of noble native species in Canada. OSB and sawn wood price fluctuations were very high in May compared to April prices.

PULP, PAPER AND RECYCLED PAPER MARKETS

Pulp undergoes price cycles as shown in Graph 1. We are currently in a phase of falling pulp prices. This downward trend is due to supply being greater than demand growth for pulp.

Price cycles are normal in the pulp market: supply varies with large increases, while demand grows year after year in line with GDP growth in pulp-importing countries. We are experiencing a jump in pulp supply (mainly due to the MAPA project in Chile and Los Toros in Uruguay), and the low GDP growth in the USA, EU and China (which account for 64% of global GDP) leading to little growth in pulp demand.

Natural Resources Canada (NRC) which latest data refers to March 2023, as it was not updated before this column was written, clearly shows that US dollar prices per ton of NBSKP have been falling in the USA, Europe and China. In March 2023, the price quoted for this product in the United States was USD 1,650, USD 1,340 in Europe and USD 860 in China. That is, in March of this year, the Chinese practiced, according to NRC a price 48% lower than the price charged in the USA for a similar product.

The figures reported by Norexeco and the Government of British Columbia suggest different magnitudes in Europe and China for the price per ton of NBSKP informed by NRC.

For example, Norexeco reported a price of USD 1,376 per ton of NBSKP in Europe in March 2023. This figure is higher than the USD 1,340 mentioned above and informed by NRC for Europe per ton of NBSKP in March 2023.

Norexeco reported USD 788 per ton of NBSKP in China in March, while the Government of British Columbia informed USD 909 in China for the same month.

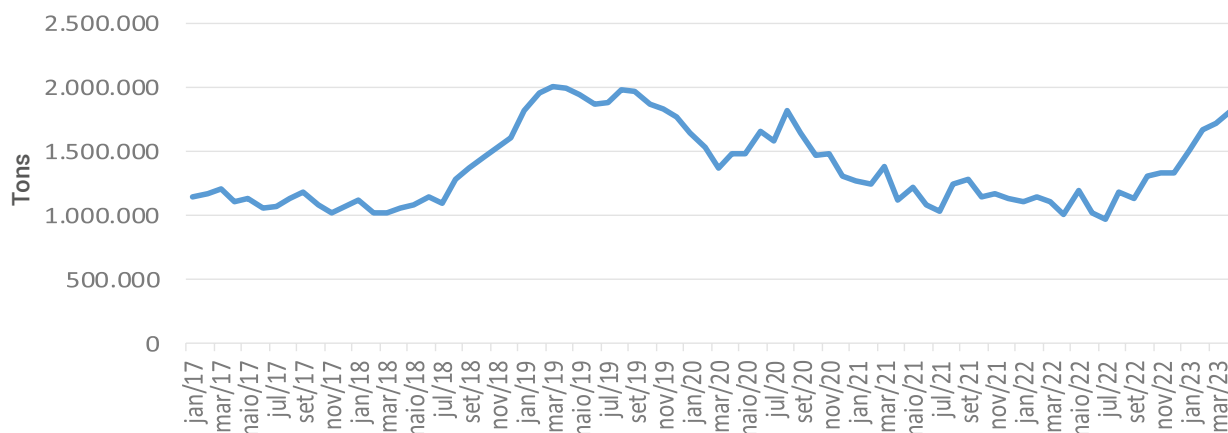
Nonetheless, Norexeco and the Government of British Columbia confirm the downward trend in US dollar prices per ton of NBSKP in Europe and China dating back to the last quarter of 2022, confirming the downward cycle that could end somewhere in the third quarter of 2023. Why?

Trading Economics informs the Contract for Difference (CFD) evolution – see <https://tradingeconomics.com/commodity/kraft-pulp> – which is the difference between the current value and the future price of a commodity. In the case of pulp traded in China, the CFD fell from January 10, 2023 to May 4, 2023 and fluctuated around this minimum until June 17, 2023. This is an indication that the price of pulp in China is reaching, in June, a minimum value and that may continue in the third quarter of this year. And, as shown further ahead, there has been a slight increase in the price of hardwood pulp in June in China in relation to the minimum values reached in May.

Europe

Norexeco reports that the price per ton of NBKSP in Europe in May 2023 was USD 1,309 and is expected to

Graph 2 - Evolution in pulp inventories at European ports



Source: Europulp

drop to USD 1,250 in June (see Table 3). If this occurs, in the first half of 2023 the price per ton of NBSKP will have accumulated a 13% drop compared to the USD 1,437 price observed in December 2022.

This drop is associated with lower growth in pulp demand (in part, due to the economic slowdown in several European countries in 2023) and the increase in pulp supply. As a result, European pulp inventories are on the rise.

According to Graph 2, these inventories increased from 1,331,168 tons in December 2022 to 1,808,554 tons in April 2023 (36% increase).

USA

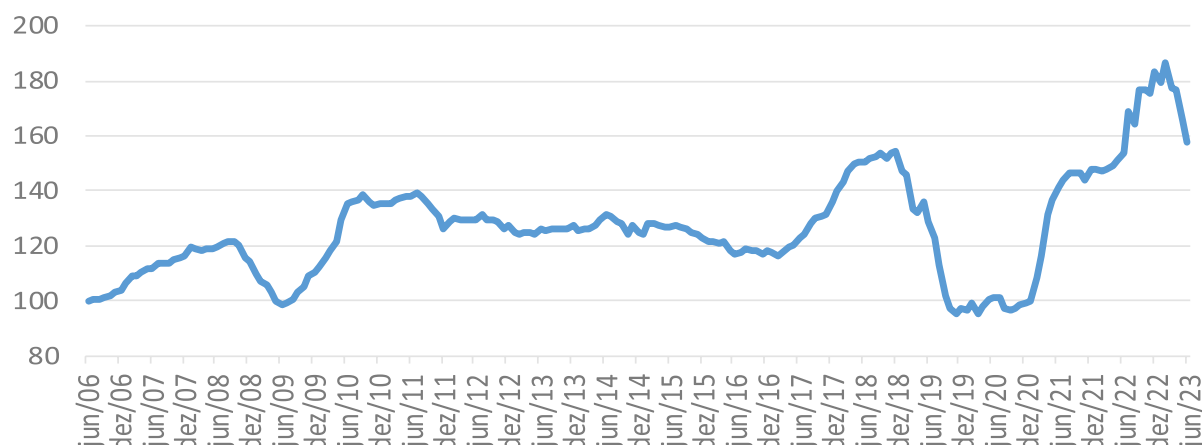
NRC provides, free of charge, data on pulp prices in the USA and the latest information from that source, when this column was written, was up to March 2023. The data in Table

1 shows that the USA is currently the market with one of the highest list prices for pulp worldwide. In March 2023, the price per ton of softwood pulp in the country was, on average, USD 1,650, a value 23% higher than that observed in Europe and almost 92% higher than the value seen in China (see Table 1). As shown in Graph 1, the price of this product has fallen in the USA since September 2022 until March of this year, at least.

According to the Government of British Columbia, see Table 2, the price per ton of newsprint in the USA fell from USD 810 in May to USD 800 in June.

The pulp, paper and paper artifacts price index – calculated by the FED-Saint Louis – went from 179.428 in January 2023 down to 157.788 in June (see Graph 3). That is, a drop of 12.1%. The biggest drops in this index occurred from March to June and this is an indication that pulp prices continued falling in the USA in April and May.

Graph 3 - Price index of pulp, paper and paper artifacts in the United States - Base = 100 in June 2006



Source: FED-Saint Louis

China

There were major price drops in pulp in the Chinese market in April and May. Even though data sources indicate different dimensions for these prices, said sources coincide in suggesting reductions in pulp prices in US dollars.

According to the Government of British Columbia, the price per ton of NBSKP in China was USD 809 in April and USD 702 in May (see Table 2). For Norexeco, the price per ton of softwood pulp (NBSKP) in China went from USD 697 in April down to USD 642 in May and could reach USD 619 in June (see Table 3). These two sources indicate a price level difference in NBSKP of more than 10% for the same month.

The difference in price levels per ton of hardwood pulp (BHKP and BEK) is even greater in China among the data sources we use for this column: Norexeco vs. SunSirs Commodity Data Group. However, both sources report a sharp drop in hardwood pulp prices in May and a slight recovery in early June.

Norexeco shows that the price per ton of BHKP in China went from USD 578 in April down to USD 482 in May and could be USD 500 in June (see Table 3). SunSirs Commodity Data Group (Table 4) places these prices at USD 732, USD 582 and USD 610, respectively. In the case of BHKP (or BEK) price differences in China, sources report a difference between the lowest and highest value for the same month of at least 20%.

Table 4 shows that the dollar price of paper fell in China in early June compared to its value in May, despite the latter having been higher than what was seen in April. At the beginning of June, the value of paperboard in China returned to what was observed in the beginning of April.

The USD price of 500 per ton of BEK placed in China means that Brazilian manufacturers, especially Suzano, did not cover its production costs. An article published in Valor International newspaper on 04/23/2023 suggests that if these low pulp prices in China continue, Suzano, for example, will have an EBITDA 26% lower in the second quarter of 2023 than it had in the first quarter of 2023.

Brazil

Brazilian pulp market

As already informed in the last two editions of this column, pulp producers in Brazil have been reducing their list prices on the ton of hardwood pulp to be sold in the

domestic market but are trying to suggest higher prices than those published in Europe.

In May 2023, local producers indicated a USD 1,181 list price (see Table 5) for the ton of BEK sold in the domestic market, while in Europe the suggested price was USD 1,087 (see Table 3). For June, pulp producers propose a list price of USD 1,051, while in Europe the list price is USD 1,030. But in China, domestic manufacturers have had to accept USD 500 per ton of BEK.

Remember that the above values are suggested prices. There are discounts that are much higher than normal according to size and importance of the domestic customer for each pulp producer in Brazil.

Brazilian paper market

In June 2023, compared to May, there should be price decreases in Brazilian Reais for recycled fluting and cover paper in industry sales to large buyers (see Table 8).

No price changes are expected for paperboard and offset paper in industry sales to large buyers in June, compared to their May values (see Tables 6 and 7) and the same should also occur with, in the same period, the price of offset paper cut into sheets in sales by distributors to small printers and copy shops in the Campinas (SP) region (Table 9).

Recycled paper market in São Paulo

Compared to May, prices in Brazilian Reais for white chips are expected to increase in June while prices for brown chips in Reais are expected to fall in São Paulo. Table 11 shows that the average price per ton of white chips types 1, 2 and 3 in June will be, respectively, 18.4%, 13% and 5.9% higher than those in May. The price drop for brown chips types 1 and 2 (June versus May), will be 2.5% and 2%, respectively. Prices for recycled newsprint and cardboard (types 1 and 2) should not change in the above-mentioned period.

The different behavior mentioned above between white and brown chip prices is due to different supply and demand situations. There is a strong reduction in the supply of white recycled paper due to less use of writing and printing paper.

INTERNATIONAL MARKETS OF WOOD SHEETS AND SAWN WOOD

In May 2023, average prices per cubic meter of plywood, OSB sheets and spruce, pine and fir board in Canada were USD 1,009.69, USD 716.22 and USD 868.48, corresponding to +2.5%, +20.7% and -14% in relation to April prices

(which were USD 985.48, USD 593.39 and USD 1,010.08, respectively), see Table 13.

There is clearly a mixed picture for wood price changes in Canada in May compared to April this year. Furthermore,

dollar price fluctuations have been very high, especially with OSB sheets. This made its price quotation in May exceed January's, which did not occur with the two other types of solid wood, which prices are shown in Table 13.

Table 1 – Dollar prices of Northern Bleached Softwood Kraft Pulp (NBSKP) in the United States, Europe and China and the price per ton of Bleached Chemithermomechanical Pulp in China

Product	Nov/22	Dec/22	Jan/23	Feb/23	Mar/23
NBSKP – USA	1,750	1,720	1,700	1,675	1,650
NBSKP – Europe	1,425	1,410	1,395	1,375	1,340
NBSKP – China	920	900	890	895	860
BCMP – China	650	640	635	640	620

Source: Natural Resources Canada.

Notes: NBSKP = Northern Bleached Softwood Kraft Pulp; BCMP = Bleached Chemithermomechanical Pulp.

Table 2 – Prices per ton of Northern Bleached Softwood Kraft Pulp (NBSKP) and Newsprint in the United States

Product	Jan/23	Feb/23	Mar/23	Apr/23	May/23
NBSKP in China	887	894	909	809	702
Newsprint in the US	835	835	835	810	800

Source: Government of British Columbia.

Note: NBSKP price is the delivery price put in China while newsprint price is also the delivery price put on the east coast of the US.

Table 3 – Prices traded in the NOREXECO market (USD per ton)

Month	NBSKP in Europe	BHKP in Europe	NBSKP in Shanghai-China	BHKP in Shanghai-China	Mixed recycled paperboard in Europe
Jan/23	1,419	1,380	982	801	76.2
Feb/23	1,397	1,337	869	754	75.5
Mar/23	1,376	1,285	788	722	75.8
Apr/23	1,353	1,221	697	578	92.0
May/23	1,309	1,087	642	482	104
Jun/23	1,250*	1,030*	619*	500*	n.d.

Source: Norexeco.

Note: * projected; n.d. = data not available.

Table 4 – Prices per ton of hardwood pulp (dried) put in China in the first week of the months reported

		1 st week March 2023	1 st week April 2023	1 st week May 2023	1 st week June 2023
Pulp	Yuan/ton	5,736	5,032	4,020	4,334
	USD/ton	830.36	732.08	581.73	610.08
Corrugated paperboard	Yuan/ton	3,089	2,750	2,850	2,840
	USD/ton	447.17	400.09	412.42	399.78

Source: SunSirs Commodity Data Group.

Table 5 – Prices per ton of hardwood pulp (dried) put in São Paulo – in US dollars

		Apr/23	May/23	Jun/23
Domestic sales	Average list price	1,280	1,181	1,051
External sales	Average price	398.50	384.61	n.d.

Source: Grupo Economia Florestal – CEPEA/ESALQ/USP e MDIC. **Note:** n.d. = data not available.

Selling prices in the internal market do not include taxes

Table 6 – Average list price per ton of paper put in São Paulo (in R\$) – without ICMS and IPI but with PIS and COFINS – domestic sales by industry to big consumers or dealers

Month	Skid packaging	Duplex board ream	Duplex board reel	Offset paper
Jan/2023	11,500	11,858	11,710	7,086
Feb/2023	11,500	11,858	11,710	7,086
Mar/2023	11,500	11,858	11,710	7,086
Apr/2023	11,500	11,858	11,710	7,086
May/2023	11,500	11,858	11,710	7,086
Jun/2023	11,500	11,858	11,710	7,086

Source: Grupo Economia Florestal – CEPEA/ESALQ/USP.

Note: higher prices practiced for paperboard and without discounts considered.

Table 7 – Average list price per ton of paper put in São Paulo (in R\$) – with PIS, COFINS, ICMS and IPI – domestic sales by industry to big consumers or dealers

Month	Skid packaging	Duplex board ream	Duplex board reel	Offset paper
Jan/2023	14,726	15,184	14,995	9,073
Feb/2023	14,726	15,184	14,995	9,073
Mar/2023	14,726	15,184	14,995	9,073
Apr/2023	14,726	15,184	14,995	9,073
May/2023	14,726	15,184	14,995	9,073
Jun/2023	14,726	15,184	14,995	9,073

Source: Grupo Economia Florestal – CEPEA/ESALQ/USP.

Note: Data from previous months is under revision and will be published in the next edition.

Table 8 – Average prices without discount and without ICMS and IPI (but with PIS and COFINS) per ton of fluting, testliner and kraftliner paper (prices in R\$ per ton) put in São Paulo

	Jan/23	Feb/23	Mar/23	Apr/23	May/23	Jun/23
Fluting	4,449	3,645	3,633	3,633	3,505	3,444
Recycled cover	4,898	4,898	4,427	4,427	4,172	4,050
Testliner	5,471	4,813	4,813	4,822	4,813	4,813

Source: Grupo Economia Florestal – CEPEA/ESALQ/USP.

Table 9 – Average prices per ton of offset paper cut into sheets (prices in R\$ and per kilo) as sold by distributors – put in the Campinas (SP) region

	Feb/23	Mar/23	Apr/23	May/23	Jun/23
Offset cut into sheets	10.43	12.26	13.68	13.68	13.68

Source: Grupo Economia Florestal – CEPEA/ESALQ/USP.

Table 10 – Prices per ton of kraftliner paper in USD FOB for export – without ICMS and IPI - Brazil

		Feb/23	Mar/23	Apr/23	May/23
Exports (USD per ton)	Min.	589	468	478	417
	Avg.	750	648	679	575
	Max.	908	899	857	786
Imports (USD per ton)	Min.	396	546	433	1,009
	Avg.	396	546	433	1,009
	Max.	396	546	433	1,009

Source: Comexstat, NCM code 4804.1100.

Table 11 – Average prices per ton of recycled material put in São Paulo (R\$ per ton)

Product		April 2023	May 2023	June 2023
White recycled material	1 st	2,450	2,450	2,900
	2 nd	1,150	1,150	1,300
	3 rd	850	850	900
Brown recycled material (corrugated)	1	632	610	595
	2	558	553	542
	3	550	n.d.	500
Newsprint		1,200	1,200	1,200
Folding board	1	1,007	1,007	1,007
	2	1,000	1,000	1,000

Source: Grupo Economia Florestal – Cepea/ESALQ/USP. n.d. = data not available

Table 12 – Brazilian imports of brown recycled material (NCM code 4707.10.00)

Months (not continuous)	US dollars	Quantity (in kilos)	Average price (USD ton)
Jan/2023	487,775	2,747,452	177.54
Feb/2023	271,644	1,579,288	172.00
Mar/2023	486,063	2,717,006	178.90
Apr/2023	648,702	3,654,970	177.48
May/2023	580,669	3,398,645	170.85

Source: Comexstat system.

Table 13 – Prices of wood in Canada and Nordic countries that compete for the use of forests with pulp production (in USD)

Month	Plywood in Canada (USD per cubic meter)	OSB in Canada (USD per cubic meter)	Sawn wood (SPF) in Canada 2x10 inches (USD per cubic meter)
Jan/23	1,140.00	651.68	1,300.36
Feb/23	1,106.92	597.39	1,323.96
Mar/23	1,033.79	579.89	1,099.76
Apr/23	985.48	593.39	1,010.08
May/23	1,009.69	716.22	868.48

Source: Government of British Columbia in Canada (see <https://www2.gov.bc.ca>, Forestry icon).

Note: SPF means sawn spruce, pine and fir wood (Canadian tree species).