



# China's Changing Paper Trail

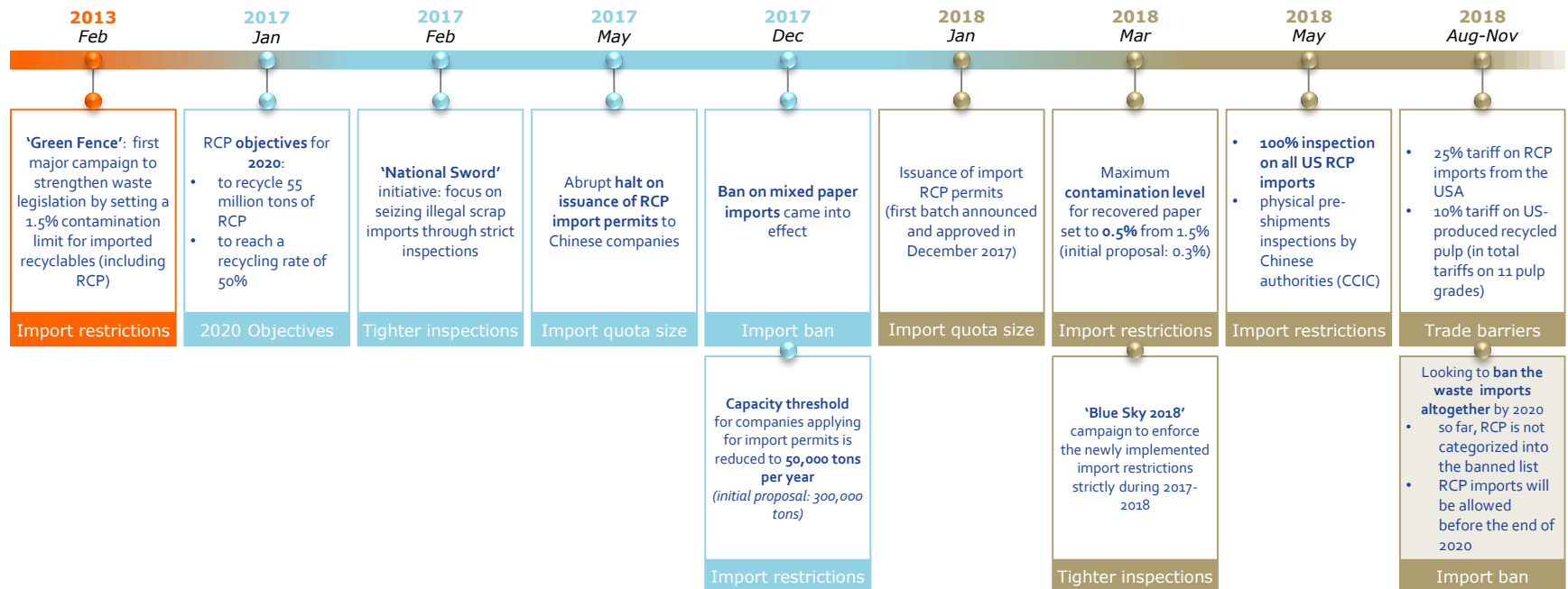
*Global and regional impact*

Natasha Valeeva (PhD), Analyst Supply Chains  
Bunnik, 22 November 2018

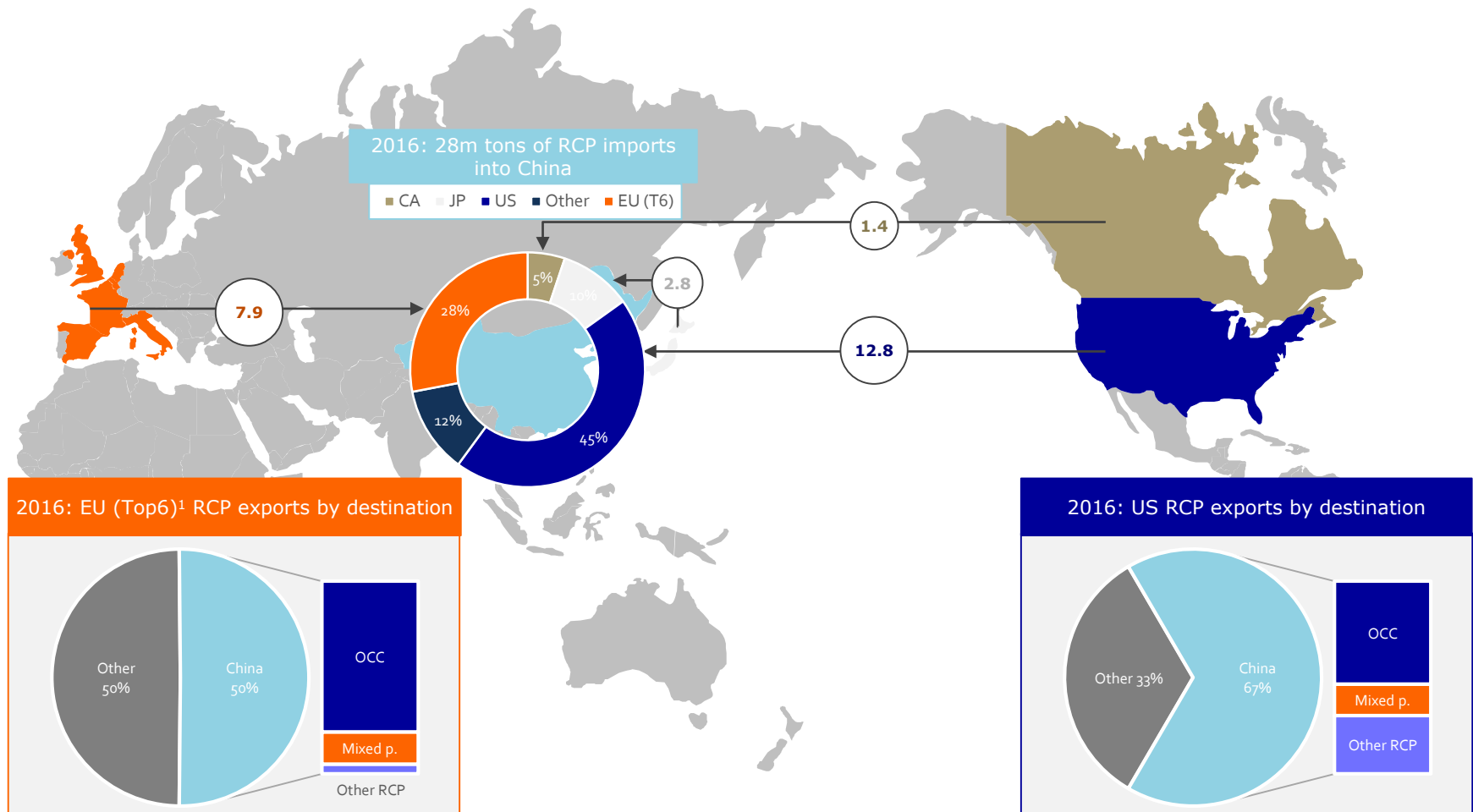


**Rabobank**

# Since 2013, China has gradually tightened its waste import policies



# China and the EU/US have been interdependent RCP trading partners



Source: UN Comtrade, Rabobank 2018. Share of imports and exports based on volume (million tons).

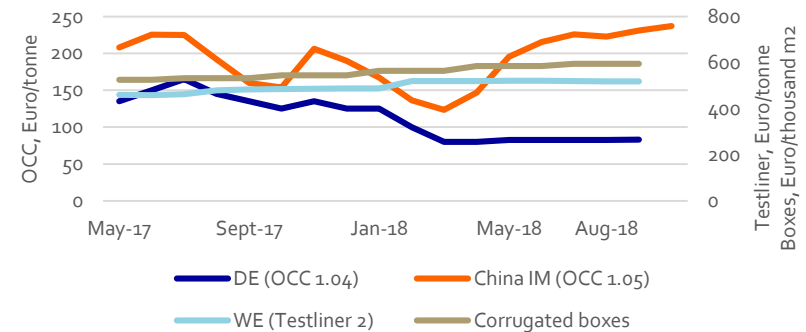
Note 1: EU (Top6) consists of: UK, NL, IT, ES, BE, FR

# An impact is felt across the whole supply chain in Europe

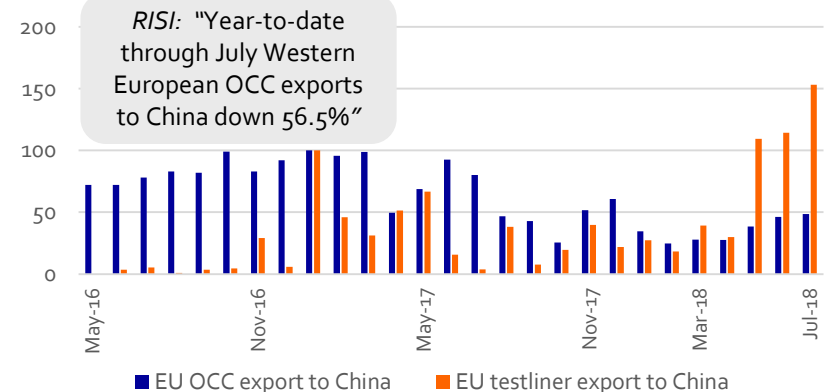


- Domestic OCC prices declined significantly, and stabilised at these low levels
- On the back of the strong demand and somewhat restricted supply, falling OCC prices have not negatively impacted profitability of the European containerboard producers
- There is a delay in passing on increased paper prices to box prices. This can negatively affect corrugator margins
- The drop in OCC exports, but new containerboard export opportunities

Price trend: OCC, testliner, corrugated boxes in Europe<sup>1</sup>



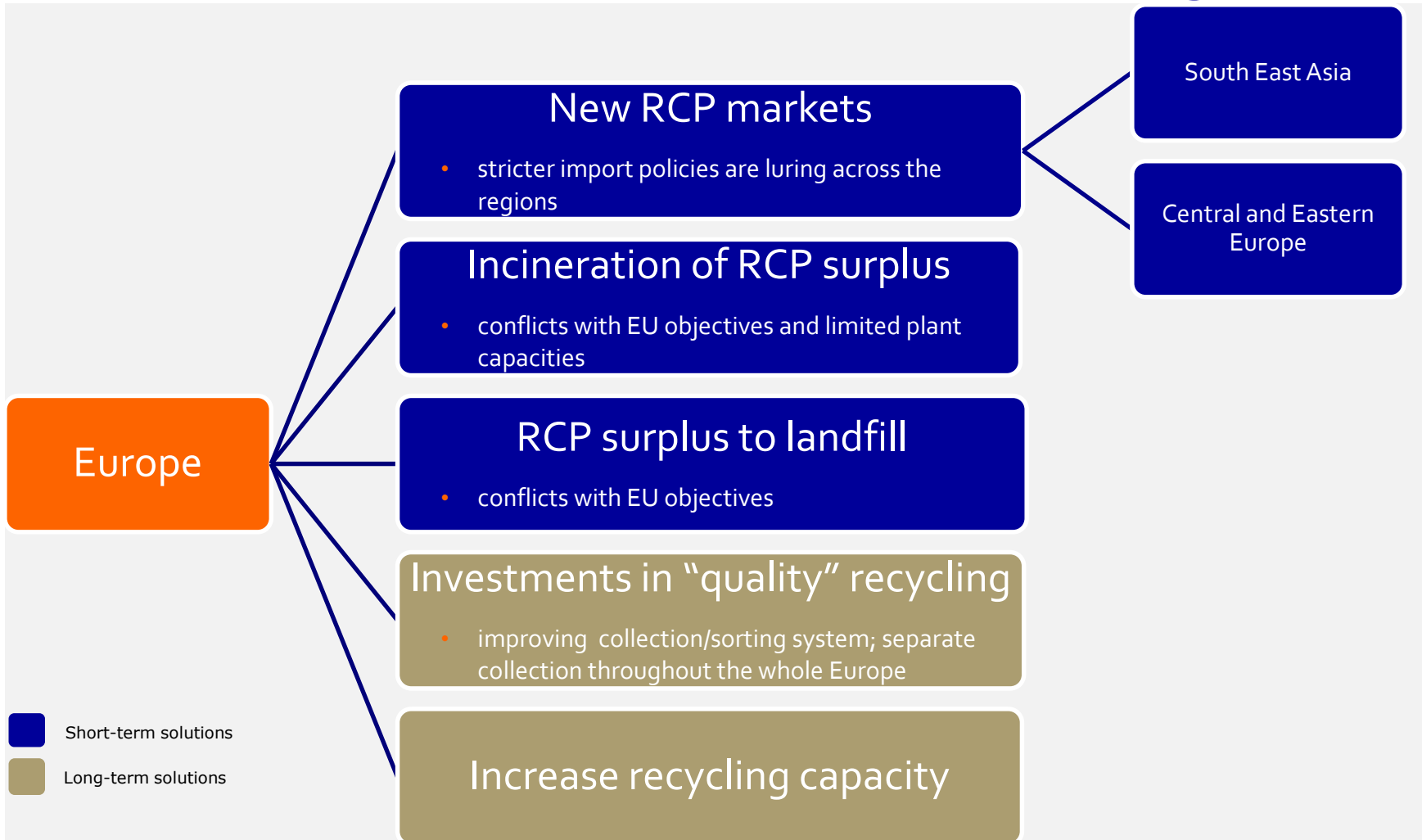
OCC and testliner export to China<sup>2</sup>



Source: RISI, Rabobank 2018

Note 1: WE = Western Europe (includes Germany, France, Italy, United Kingdom). Prices: DE (OCC1.04) free-delivered, WE (Testliner 2) free-delivered net-net domestic, China IM = OCC sourced from WE to China; Note 2: Index: Jan-17 = 100

# Solutions to RCP oversupply: new export markets and 'quality' recycling



Source: Rabobank, 2018



# Regulatory and sector pressure for 'quality' recycling is building up...



## Statement

### CEPI statement on the context of the Chinese waste import ban

Separate collection ensures the highest level of circularity

## Paper industry seeks Government deal



July 3, 2018 UPDATED 7/3/2018

## Germany to launch recycling law for packaging in 2019

Plastics News Europe



Public Policy Sustainability Europe Packaging More +



German waste management sector, paper industry call for Europe-wide abolition of commingled collection systems

2017, will come into existing law on packa waste.

German waste management sector, paper industry call for Europe-wide abolition of commingled collection systems

BRUSSELS, Feb 7, 2018 (RISI) – The waste management associations Bundesverband der Deutschen Entsorgung-, Wasser- und Rohstoffwirtschaft (BDE), Bundesverband Sekundärrohstoffe und Entsorgung (Brose) and the German paper industry association Verband Deutscher Papierfabriken (VDP) have joined forces to jointly call for the abolition of commingled collection systems. They are demanding that paper for recycling (PFR) should be collected separately throughout Europe in the future.

"The future raw materials policy must be designed in such a way that the raw material paper for recycling is available for recycling in excellent quality throughout Europe. Separate collection is of crucial importance here," the associations said in a statement.

## trabajando en / mesa de la nueva recuperación de papel y cartón

La Mesa de la Nueva Recuperación es una plataforma abierta a todas las empresas del sector de la recuperación de papel y cartón para reciclar, que quieran contribuir a la definición y desarrollo de nuevas estrategias y proyectos para el futuro de la recuperación y el reciclaje en España.

Nace con la vocación de crear alianzas con otros interlocutores y asociaciones, trabajando conjuntamente a lo largo de la cadena del reciclaje de papel y cartón, para definir y alcanzar objetivos comunes. El propósito último es crear valor a lo largo de la cadena, contribuyendo al buen funcionamiento y a la mejora del ya muy exitoso sistema español de reciclaje de papel y cartón.

Las quince empresas que participan actualmente en la Mesa suponen más del 55% de la recuperación de papel y cartón en España.

Cualquier empresa privada que se recupere de papel y cartón y entrar a formar parte de la Mesa.

Las tres principales áreas de trabajo legislativo y la estrategia sectorial.

En el ámbito de la legislación y la el desarrollo autonómico del nuevo

Mejorar la calidad del papel y cartón para la Nueva Recuperación, así como la próxima publicación de la primera



Las empresas que actualmente participan en la Mesa son:



Source: Rabobank 2018

# ... and drives movements in the European (paper) recycling market?



- M&A activities, Chinese players are also involved
- Further integration of recycling business into the paper packaging supply chain



2 June 2018

"Cycle Link, one of the wholly-owned subsidiaries of China's Anhui Shanying Paper Industry recently **acquired the Dutch company Waste Paper Trade (WPT)** from Germany's Karl Tönsmeier Entsorgungswirtschaft and the Netherlands' Lumaro Beheer. **The change of ownership will enable WPT, which primarily markets paper for recycling, to focus more on the Asian market.**"



12 June 2018

Group CVB Ecologistics has **acquired the assets and activities of Papeterie de Raon**, a paper mill in Raon L'Étape, France. With this take-over CVB wants to offer a guaranteed circular solution for pre- and post-consumer liquid packaging. **Until the end of 2017 the volumes of (production) waste liquid packaging supplied by CVB partners/suppliers were sold in China and to Raon.**"



Smurfit Kappa

13 April 2018

"Smurfit Kappa Group has **signed a deal with Ascit, a waste collection company** owned by some local authorities in the province of Lucca, Italy, to purchase all the paper collected by the company from local households and businesses. With the aim of **closing the recycling loop**, Smurfit Kappa Recycling is planning to open a new recycling depot, in the Capannori area"



WORKING FOR THE FUTURE

15 November 2018

"REMONDIS keeps growing. The group recently announced that it **took over the Klumpe group** with retroactive effect from January 1. "..., the Klumpe group is an ideal partner for developing Remondis' activities in north-western Lower Saxony"



Smurfit Kappa

26 Jan 2018

"Smurfit Kappa Group has **completed the purchase of a 12,000 square metre site on Whitebirk Industrial Estate** in Blackburn. Smurfit Kappa had previously been leasing the site (which forms part of its national recycling depot network) from H Rigg Properties"

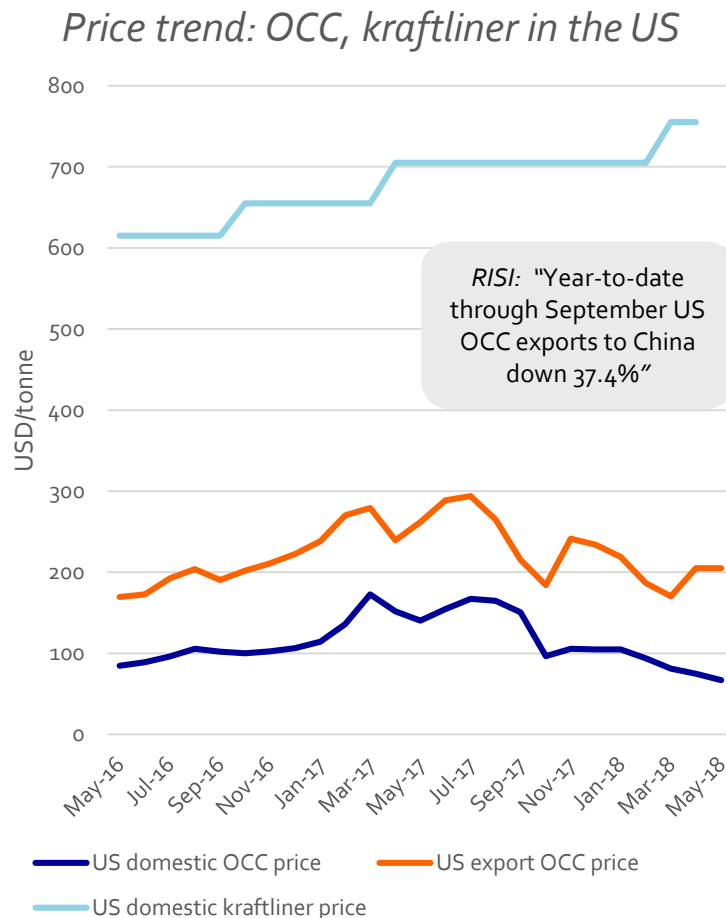


WORKING FOR THE FUTURE

29 September 2018

"REMONDIS has re-entered the 'dual system' market after a four-year break following its **acquisition of all shares in Duales System Deutschland Holding GmbH & Co. KG**, as it believes there are now good opportunities to increase packaging recycling rates, especially against the backdrop of the new Packaging Law

# The US faces many similar challenges as Europe



Source: RISI, Rabobank 2018

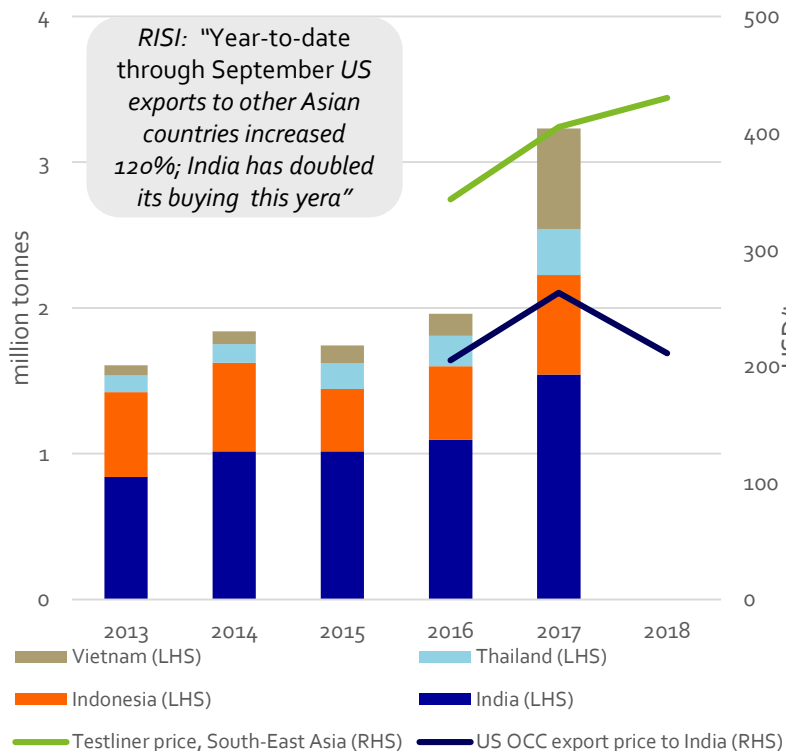
- Domestic OCC price tanked by 60%
- 65% of US domestic containerboard producers are virgin grade:
  - virgin players may face a growing pressure on costs and margins due to developments in the recycled segment
- The US has got to find both short term (exports to SEA, Mexico) and long-term solutions ('quality' recycling infrastructure investments)
- The drop in OCC exports, but new containerboard export opportunities



# India and South-East Asia are growing destinations for OCC and investments



## *Imports of EU- and US-originated OCC to select Asian countries*

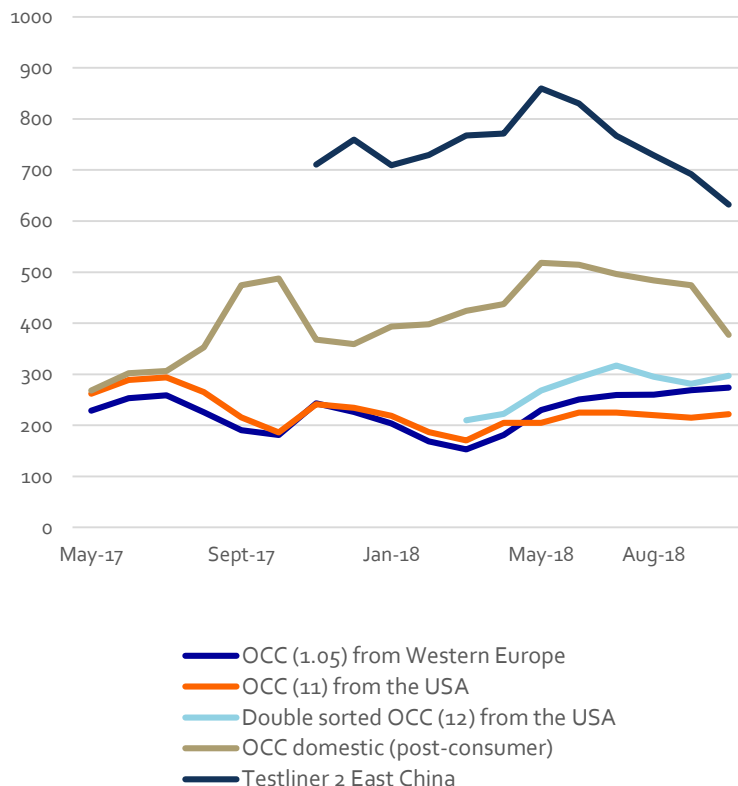


Source: RISI, Rabobank 2018

- New home for relatively lower quality OCC
  - more quality control will come
- The lower transportation costs make the region more attractive for containerboard imports into China
- Containerboard production is growing, but current capacity is limited yet
  - containerboard capacity increased from 13.9m tons in 2012 to 19.3m tons in 2017
  - relatively "easy" now to get the necessary permits; but local government environmental concerns are growing

# OCC supply gap in China leads to higher costs ...

*Price trend: OCC and testliner in China<sup>1</sup>*



- The price of domestic OCC remains high; the price of imported OCC increased
  - primarily driven by switching to higher-quality OCC
- Containerboard prices:
  - weak pricing for recycled containerboard, regardless of high RCP costs
  - the price erosions happened even as many major producers carried out massive downtime, due to a shortfall of RCP
- Plastics have been replacing some paper packaging in China

Source: RISI, Rabobank 2018; Note 1: WE = Western Europe (includes Germany, France, Italy, United Kingdom)

# ... domestic consolidation and investments to increase OCC supply ...

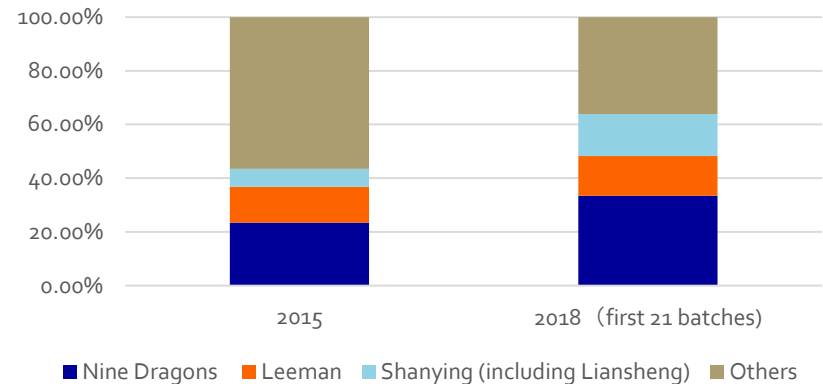


- Inefficient paper mills are being forced to clamp down/merge; the leading players enjoy better OCC prices due to better access to import quota's
- Investments in domestic infrastructure to increase OCC supply
  - The National Development and Reform Commission announced in 2017 that it would allocate USD 38.2bn through 2020 to combat China's garbage problem
  - Targets by 2020: RCP recycling volume - 55m tons; the RCP recycling rate - 50%
- Paper-packaging companies and downstream industries are expected to jointly work on introducing programs to increase domestic RCP collection rates

*Total number of paper packaging companies in China*



*RCP import quotas in 2015 and 2018*



Source: China Paper Association, China Solid Waste and Chemicals Management, 2018

# ... but also drive Chinese investments across the globe – also in Europe



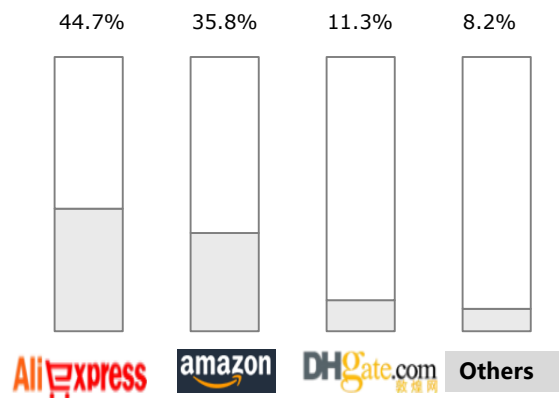
Anhui Shanying Paper to acquire Nordic Paper	Shanying Paper to acquire Boreal Bioeref pulp mill	Hengan to be shareholder in pulp project	Selected examples globally
July 2017	April 2018	April 2018	August 2018
<ul style="list-style-type: none"> <li>Chinese paper and pulp company Anhui Shanying Paper Industry has agreed to acquire <b>Swedish firm Nordic Paper</b> from Special Situation Venture Partner III and Petek</li> <li>Special Situation Venture Partner III and Petek, each hold 60% and 40% stake in Nordic Paper. The financial details of the acquisition have not been disclosed</li> <li>Anhui Shanying Paper will acquire <b>three of Nordic Paper's mills located in Sweden and the fourth mill in Norway</b>. Nordic Paper mainly produces natural greaseproof paper and kraft paper</li> <li>The company stated that it communicated with the stock exchange its <b>intentions to grow and diversify in terms of product portfolio and geographic reach</b></li> </ul> 	<ul style="list-style-type: none"> <li>Chinese paper producer Shanying is set to take control of <b>Finland's Boreal Bioeref</b>, the company behind a planned 500,000 ton/yr pulp mill in Kemijärvi, Finland.</li> </ul>  <ul style="list-style-type: none"> <li>The firms have been in negotiations on the deal since November 2017. The transaction will be finalized after the completion of binding agreements on the combination of both direct and indirect share ownership, d. alongside the Chinese engineering firm CAMCE, another partner in the project</li> <li>The new mill is expected to have an annual capacity of 500,000 tons/yr of northern bleached softwood kraft (NBSK) pulp, dissolving pulp (DP) and microcrystalline cellulose (MCC). The mill, which will have one line, will have a flexible production mix of NBSK, DP and MCC that can be varied to take advantage of market opportunities, Boreal Bioeref said earlier</li> </ul>	<ul style="list-style-type: none"> <li>China's Hengan International is set to <b>take a 36.46% stake</b> in Finnulp, a firm planning to build a 1.2m ton/yr softwood pulp and bioproducts mill in Kuopio, eastern Finland</li> </ul>  <ul style="list-style-type: none"> <li>Hengan believes that its expansion into upstream pulp and bioproduct manufacturing will stabilize its supply of <b>wood pulp into the future, and so enhance its long-term development</b></li> <li>The second largest tissue paper producer in China, the company is completely reliant on market pulp to feed its tissue PMs, which have a total capacity of around 1.3m tons/yr.</li> <li>Due to rises in wood pulp prices, gross profit margin in its tissue paper segment decreased to approximately 32.9% in 2017, down from 37.9% in 2016</li> </ul>	<ul style="list-style-type: none"> <li><b>Shanying subsidiary (Global Win Wickliffe LLC)</b> to acquire Verso's Wickliffe mill and to <b>enter the U.S. market</b>. The company is planning a total of USD 500m for strategic investments in the NA pulp, paper, packaging and waste paper recycling sectors</li> <li><b>Resolute Forest Products</b> to sell Fairmont recycled kraft pulp mill to <b>Nine Dragons Paper</b></li> <li>Brazil: <b>Royal Golden Eagle (RGE)</b> group acquired Lwarcel Celulose's assets in São Paulo, Brazil, including its 250,000 tons/yr bleached eucalyptus kraft (BEK) pulp mill</li> <li>Aside from the U.S. and Europe, <b>South-East Asia</b> (e.g. Malaysia, Vietnam, and Thailand) is an attractive region for cross-border projects, especially for setting up new mills, due to shorter permit-application procedures (when compared to the US and Europe)</li> </ul>

Source: Rabobank based on companies websites, various newsletters, 2017 and 2018

# Chinese e-commerce grows, continues to go global and...



- In 2015, 57 million packages were delivered on a daily basis
- In 2016, this number already increased to 85 million
- By 2020 the total number of packages is expected to reach 145 million or 53 trillion full year!
- Mainstream cross-board export e-commerce shows that Alibaba has gained more than 40% ranked at the first place
- China HK is the place that purchase most of the goods from China



## Export destination TOP10



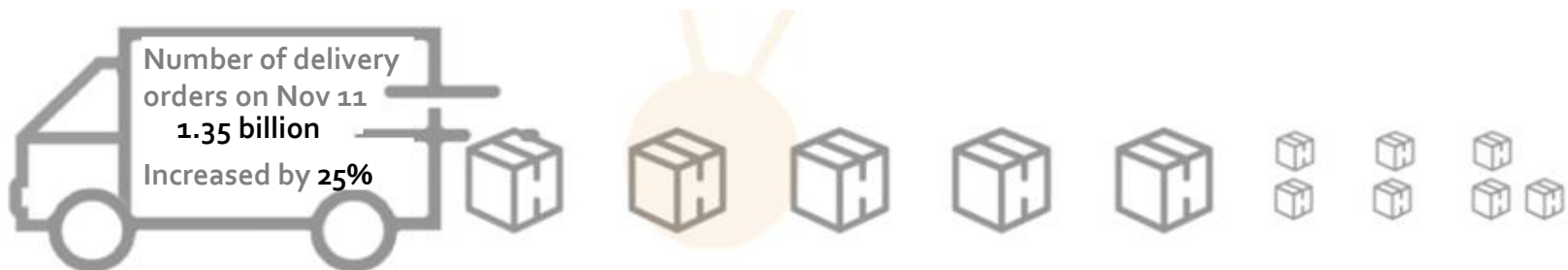
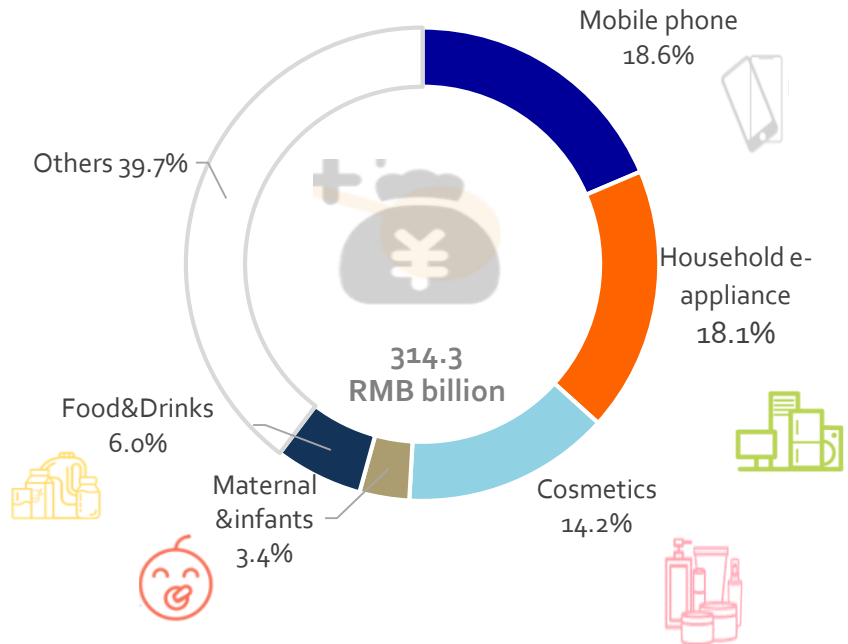
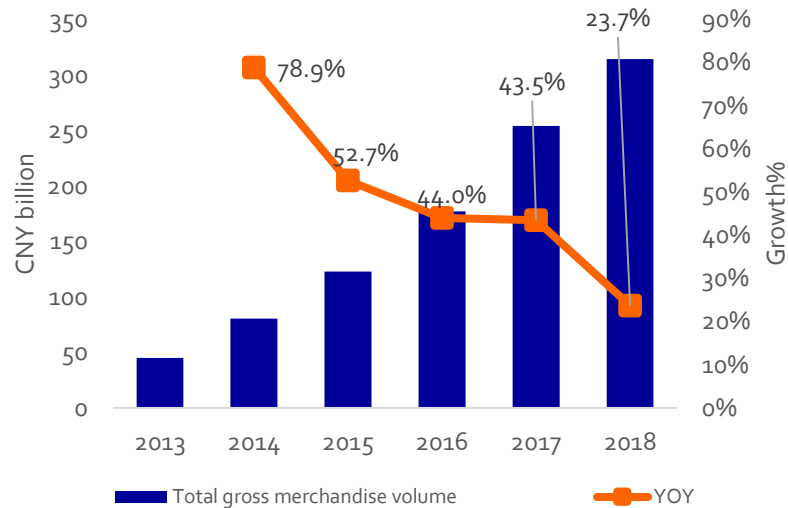
- |                  |                  |
|------------------|------------------|
| 1 China HK 23.5% | 6 Japan 3.4%     |
| 2 Russia 18.2%   | 7 Singapore 2.7% |
| 3 US 11.5%       | 8 UK 2.6%        |
| 4 Taiwan 7.2%    | 9 Spain 2.2%     |
| 5 Australia 6%   | 10 France 2.0%   |

Russia becomes the most important export country. Spain loves Made in China.



# ... the Chinese online shopping festivals set another sales record

Singles' Day Sales (RMB billion)



Source: Statistics from the State Post Bureau 2018, Rabobank 2018

# Also in China, sustainability pressure leads to new packaging strategies ...



- China's State Post Bureau announced that by 2020 half of external packages should be degradable, 90% of bills electronic, and packing material must be cut by 10%
- Online giants have a suite of different targets to make their packaging and logistics operation 'greener'



**2015**

## Slim Tape

"**Slim tape**" uses 15% less material, saving up to 5 million m<sup>2</sup> of tape. In 2016, at least 100 million meters of tape has been saved, which is enough to make 2.5 laps around the globe



**2017**

## Shared Packaging

JD and nine FMCG brands (P&G, Nestle, Unilever, etc.) introduced the ZeroBox (thermoplastic resin) that can be **recycled and reused** (at least 20 times).  
"Now we prefer boxes without logos printed on them, so that our partners can reuse them freely"



**2017**

## Shared Distribution

In collaboration with Danone Waters China, a subsidiary of Danone Group, JD announced to build a **shared warehouse** in West China



**2017**

## Green Stream

JD along with nine major brands, including Lego, Nestle, Unilever, P&G, and Wyeth, announced the launch of the **Green Stream Initiative** to promote the use of sustainable, "greener" packaging materials



JD.com is China's second largest e-commerce platform, next to Taobao owned by the Alibaba Group, providing 266.3 million active customers with direct access to China's e-commerce market

### Commitment to:

- reduce the number of disposable paper-based boxes by 10 billion
- make 80% of packaging materials recyclable
- replace over 50% of plastic packages with biodegradable material
- make 100% of logistics packaging materials composed of recyclable or reusable materials by 2020

# ... and drives 'green logistics'



## CAINIAO UNVEILS 'GREEN LOGISTICS' MASTER PLAN

ADAM NAJBERG, CHRISTINE CHOU | SEPTEMBER 22, 2017



# Summary: what's at stake for the global paper packaging industry?



## 1. Europe and North America

- substantial impact on European packaging supply chain: RCP oversupply and price declines, but no pressure on paper prices
- sending more RCP to landfill or to incineration new, need to find structural solutions
- movements in the European (paper) recycling market
- M&A activities, Chinese investments

## 2. India and South-East Asia

- stand to benefit from the changes
- lower RCP prices and competitive containerboard prices
- Chinese and other investments in paper mills
- stricter import policies are lurking across the region

## 3. China

- OCC supply gap in China leads to higher costs across the whole paper packaging value chain
- industry transformation towards a more professional and more concentrated sector
- investments in domestic infrastructure
- international expansion: investments to get access to different kind of fiber and containerboard

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