



Two Decades of United States Import Trends for Converted Paper Products

BY PAUL FOWLER

**Wisconsin Institute for Sustainable Technology;
University of Wisconsin-Stevens Point**

At times during the economic cycle, we hear or read anecdotal reports of cheap manufactured imports impacting and hurting domestic industry players. In the paper and converting industries, these challenges manifest periodically and almost 20 years ago, industry watchers were calling out printing paper imports from China that were cheaper than what was available at a local paper mill. Similar instances continue to occur.

The US Census Bureau, through its USA Trade® Online data tool, compiles current and historical US export and import data. These data may be accessed through a free subscription account. To more deeply understand import trends and begin to attempt to quantify the impact of paper imports, identify trends and spikes, we have made an initial baseline, scene-setting analysis of converted paper imports from all regions into the United States over the past 20 years. While this preliminary analysis neither supports nor debunks anecdotal claims, we present it to inform and stimulate discussion about where import trends may be affecting the competitiveness of domestic paper converters. We also see these trends as presenting opportunities for incumbent businesses to adapt or innovate their production and product lines. First, however, we provide a brief overview for those unsure about what is converting.



Figure 1. The process flow for manufacturing converted products (input feedstocks in the paper industry are increasingly recovered paper products such as old corrugated containers and mixed paper)

What is converting?

The pulp and paper manufacturing industry as a whole comprises four key operations from start to finish as shown in Figure 1.

This linear operation reveals that converting is the last step in the process of transforming pulpwood (or recovered paper) into the finished products that are used in myriad commercial or retail applications. Converting businesses take the outputs of a paper mill – rolls or sheets – and add value by, for example, printing; making envelopes; manufacturing boxes from corrugate or solid board; creating food wrappers and food service ware; transforming base sheets into building and construction materials; and so on. The notable exception to this approach is tissue production where converting is mostly done on site and the product is converted from parent rolls into retail packages in an integrated operation.

The Analysis

The North American Industry Classification System (NAICS) assigns a numeric coding system to all businesses. Converted paper products companies have their own category which is further subdivided into the following sub-categories:

- Corrugated and solid fiber box manufacturing
- Folding paperboard box manufacturing
- Other paperboard container manufacturing
- Paper bags and coated and treated paper manufacturing
- Stationery product manufacturing
- Sanitary paper product manufacturing
- All other converted paper product manufacturing

These sub-categories are used by economists and others to identify trends in employment, sales, regionality of production and so on. While they conveniently aggregate all types of paper converting into seven groups that can be readily compared and contrasted, the vast diversity of products and

product applications within the category is lost. Conversely, the harmonized system (HS) that is used by customs authorities around the world to identify products when assessing duties and taxes is extremely complex running to almost a hundred commodities within converted paper products.

Since we wished to retain the simplicity of the NAICS categories for showing overall trends but also probe which specific converted paper product commodities were impacting import trends most significantly we used the United States International Trade Commission's Commodity Translation Tool to identify all HS products within each NAICS category.

In this initial study we report total world imports of converted paper products into the United States on the basis of their customs values. When readership is interested, subsequent articles may dig deeper to break down world totals and identify key regions and countries that import most converted paper products by value into the US.





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The Results

Overall converted paper import trends

Figure 2 shows the proportions of each of the seven NAICS sub-categories of converted paper products and their contributions to \$7.75 billion of total import value in 2022 and how they have changed over the past two decades.

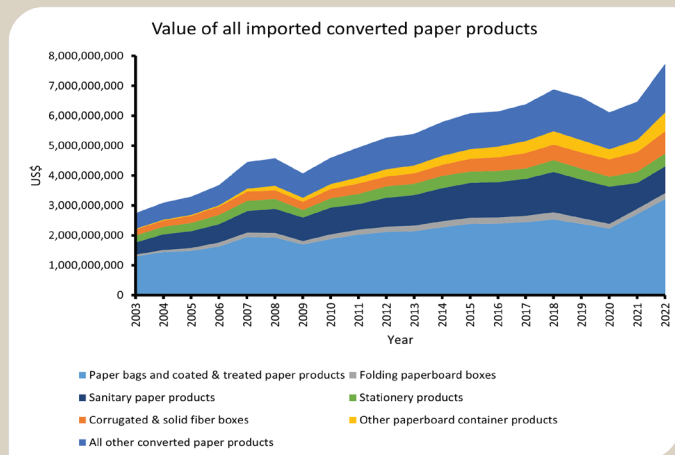


Figure 2. Overall import trends for all categories of converted paper products

Conspicuously, the diverse category of ‘paper bags and coated and treated paper’ is the largest component (\$3.21 billion in 2022) and showing growth throughout almost the entire period. Other notable features are the decline in imports of sanitary paper products since the pandemic (\$900 million in 2022) and growing imports of ‘all other converted paper products’ (\$1.64 billion in 2022). These trends are probed more deeply in the next sections.

Paper bags and coated and treated paper products

In total, the import value of this category in 2022 was \$3.21 billion. Figure 3 shows the rising value of those imports over the past 20 years.

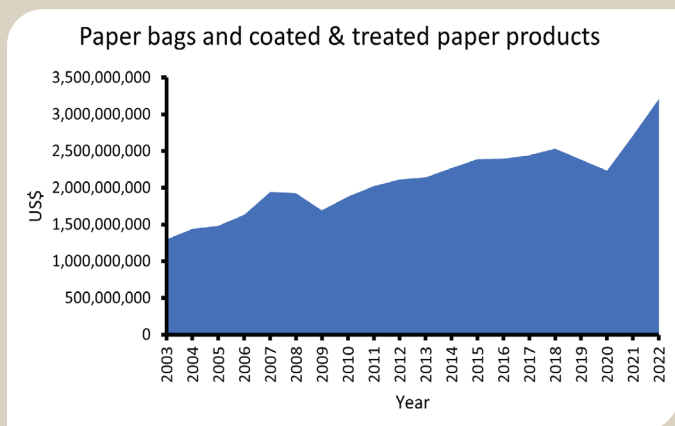


Figure 3. Import trend for paper bags and coated and treated paper products

Thirty-eight converted paper commodities comprise this category. However, the import of just four commodities: pressure-sensitive paper (\$216 million), plastic coated paper (\$315 million), shipping sacks & multiwall bags (\$189 million) and sacks and bags (\$857 million), accounts for roughly half (49%) of the total import value in 2022. Figure 4 depicts those four commodities and reveals the substantial growth in imports of sacks and bags in particular.

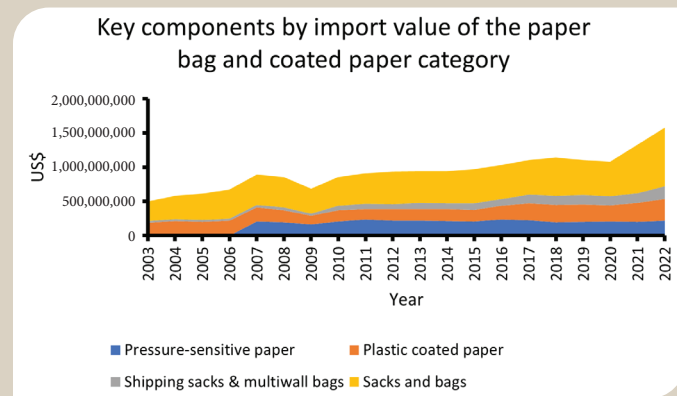


Figure 4. The most significant commodities by value within the paper bags and coated and treated paper products category

We expect that the growth in imports of these products reflects changing preferences for use of renewable materials generally and paper products specifically in packaging and shipping applications. While domestic manufacturers are ramping up production of items like padded paper mailers, it appears that imports are fulfilling some of this demand.

Folding paperboard boxes

In terms of import value, this is the smallest (but still \$203 million in 2022) import category comprising just two commodities: rigid boxes and cartons; and box files, letter trays and storage boxes. The growth in this category since 2003 is distinct (Figure 5) with rigid boxes and cartons comprising by far the biggest commodity (\$179 million in 2022). These are responsible for approximately four-fold growth over the past two decades.

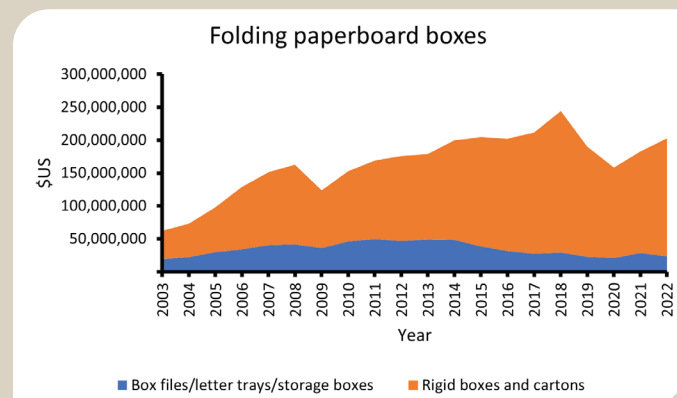


Figure 5. The chart shows the significant growth in the import of rigid boxes of cartons over two decades

Sanitary paper products

Imports of sanitary paper products peaked at \$1.35 billion in 2018 (Figure 6). Several commodities comprise this category including toilet paper; paper towels; handkerchiefs and facial tissues; tablecloths and table napkins; and bedsheets, typically of the type used in hospitals.

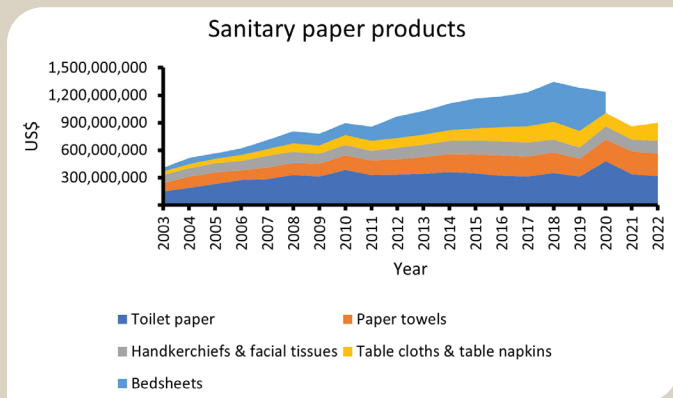


Figure 6. Commodities within the sanitary paper products category (note, values for 2021 and 2022 do not present the complete picture as data for bed sheets is absent for those years in USA Trade Online)

The majority of import value growth in sanitary paper products in the past two decades can be attributed to bedsheets (\$228 million in 2020), paper towels (\$243 million in 2022), and tablecloths and table napkins (\$197 million in 2022). Toilet paper imports did spike in 2020 to \$477 million (attributed to short term pandemic demand and unavailability of domestically produced product) but

aside from that, toilet paper import values have remained quite consistent since 2008.

Stationery products

The increase in import value of stationery products probably reflects dwindling domestic production capacity for these items. Over the two-decade period, last year saw the greatest value in stationery imports, increasingly particularly sharply after the pandemic. Comprising \$427 million of import value, whether this reflects the challenge of cheap imports or the opportunity for domestic manufacturers to begin to supply this market is an area for further investigation. In particular, within the category of stationery products, two subcategories, memorandum and letter pads and envelopes dominate the import value (approximately \$145 million and \$180 million, respectively in 2022).

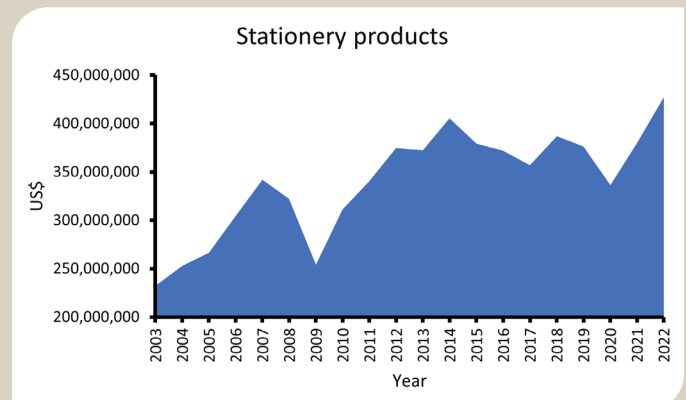


Figure 7. Import value trend of stationery products in the past two decades

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While the import value of memorandum and letter pads remained relatively stable over the past twenty years, it is notable that the value of imported envelopes has increased more than four-fold from \$42,241,195 to \$180,413,754 in the past two decades (Figure 8).

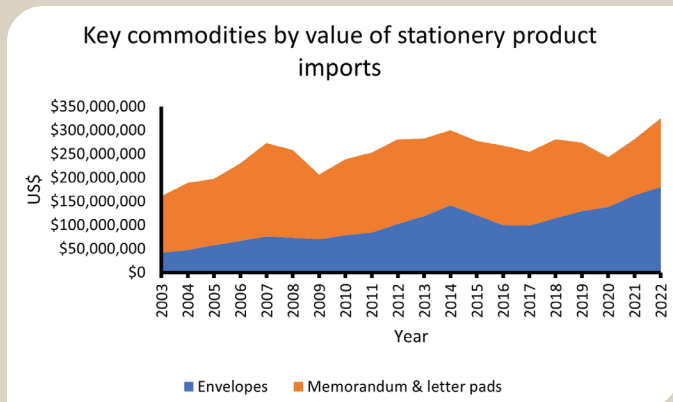


Figure 8. Import value trends of key commodities within the stationery product category

Corrugated and solid fiber boxes

The corrugated and solid fiber boxes category comprises three major commodities: perforated, corrugated board, food and beverage containers and cartons/containers/boxes. As can be seen in Figure 9, the category is dominated by cartons/containers/boxes with an import value of \$640 million in 2022. The rise in value has been substantial over the past 20 years and most likely reflects

the growth in domestic e-commerce. It is noteworthy that the decline experienced in other categories during the pandemic did not occur to the same extent in this category, again supporting the notion that growth in imports is being driven by e-commerce activity domestically.

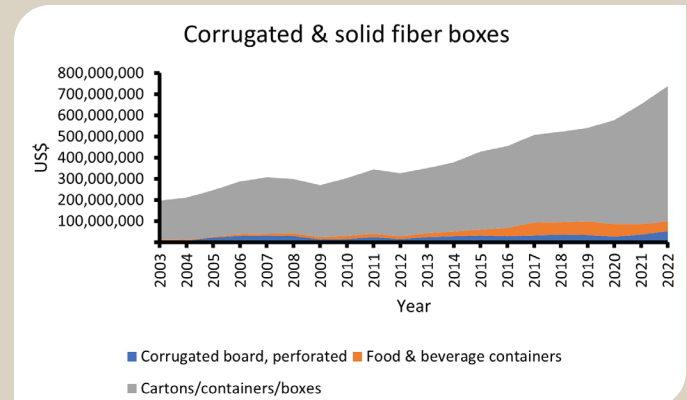


Figure 9. Growth in import values of corrugated and solid fiber boxes

Other paperboard container products

This category has grown substantially from a very low level in 2003 (\$21 million) to \$634 million in 2022 (Figure 10). Included within 'other paperboard container products' are items like fiber drums, tubes and cans as well as cups, trays, dishes; and plates made of paper or paperboard.

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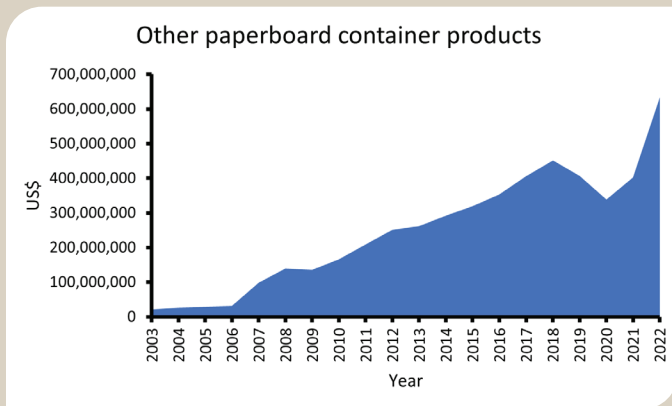


Figure 10. Import value trend for other paperboard container products

Two commodities, ‘cups and nested food containers’ and ‘trays, dishes and plates,’ dominate this import category as shown in Figure 11.

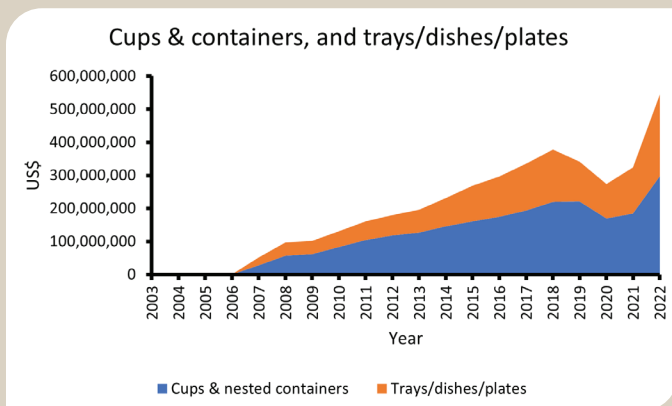


Figure 11. Growth in import values of the main commodities of the other paperboard container category

Imports of paper cups, nested containers and trays, dishes and plates have grown from essentially no imports in 2002 through 2007 and then linearly year on year to the present day. In 2022, the import values of paper cups and nest containers was \$298 million – up from \$27 million in 2007 (an order of magnitude increase) when data was first reported. Trays/dishes/plates have increased from \$24 million in 2007 to \$247 million in 2022 (another 10-fold increase). There was a noticeable fall off in imports at the height of the pandemic but data for 2022 show that the trend is increasing. We postulate that this increase in demand is due to brands and consumers shifting from plastic-based food service ware and choosing fiber-based materials instead. Industry watchers project increasing demand for fiber-based alternatives for both food packaging and food service ware products and domestic manufacturers are increasing their production capacity in this area. Nevertheless, almost \$300 million of cups and containers and nearly \$250 million of trays/dishes/plates are both significant import values that could be challenged by new domestic capacity.

All other converted paper products

This category comprises 27 distinct converted paper commodities with a combined value in 2022 of \$1.63 billion. Aside from a curious spike in import values in 2007 and 2008, and the evidently pandemic-related decline in imports in 2020 and 2021, this category has grown linearly over the period (Figure 12).

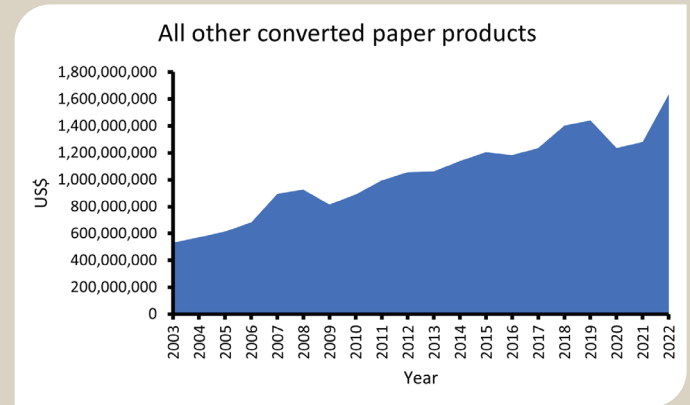


Figure 12. Import trend of all other converted paper products

Just four commodities: cigarette paper; confetti, spirals or streamers; plates, bowls, cups; and molded pulp articles account for 64% (\$1.04 billion) of all the total import value of this category (Figure 13). Notably, the ‘plates, bowls, cups’ and ‘molded pulp articles’ categories only appeared as significant imports in 2018 and their import has increased significantly in that period. We presume that this increase is yet again in response to the consumer sentiment that currently favors paper (fiber) over plastic food service ware items. We only see this consumer/quick serve demand increasing with time so the possibility for a domestic manufacturer to capture more of the domestic market for fiber-based food service ware appears significant so long as the market is not being adversely affected by cheap imports. Also striking is the increased import value of cigarette papers (\$216.5 million in 2022) and confetti, spirals or streamers (\$290.1 million in 2022).



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Key commodities by value of all other converted paper products

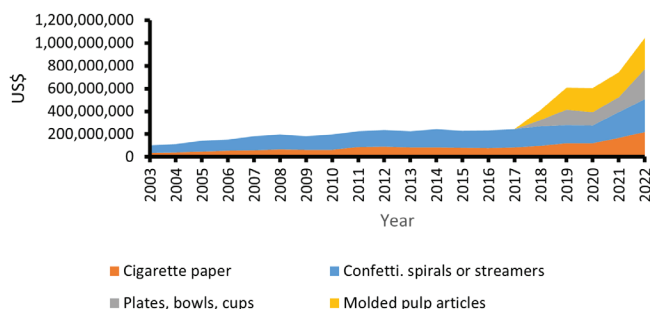


Figure 13. Growth in import values of the main commodities of the other converted paper products category

Conclusions

This piece presents a ‘first look’ at world imports of converted paper products into the United States. With a total import value of \$7.75 billion, there are obvious categories where opportunities to contemplate re-directing domestic capacity and capability arise. Of course, the upward trend and increasing size of the total import value also supports the need to explore more deeply the challenges and risks to domestic industry of cheap overseas imports whenever they occur.

Acknowledgement

A recent chance conversation with Henry Schienebeck about paper imports prompted me to take a deeper dive into this topic. 🌲



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