

INSIGHT



January 2021

Impact of the upcoming EU non-recyclable plastic packaging levy on the flexible packaging market

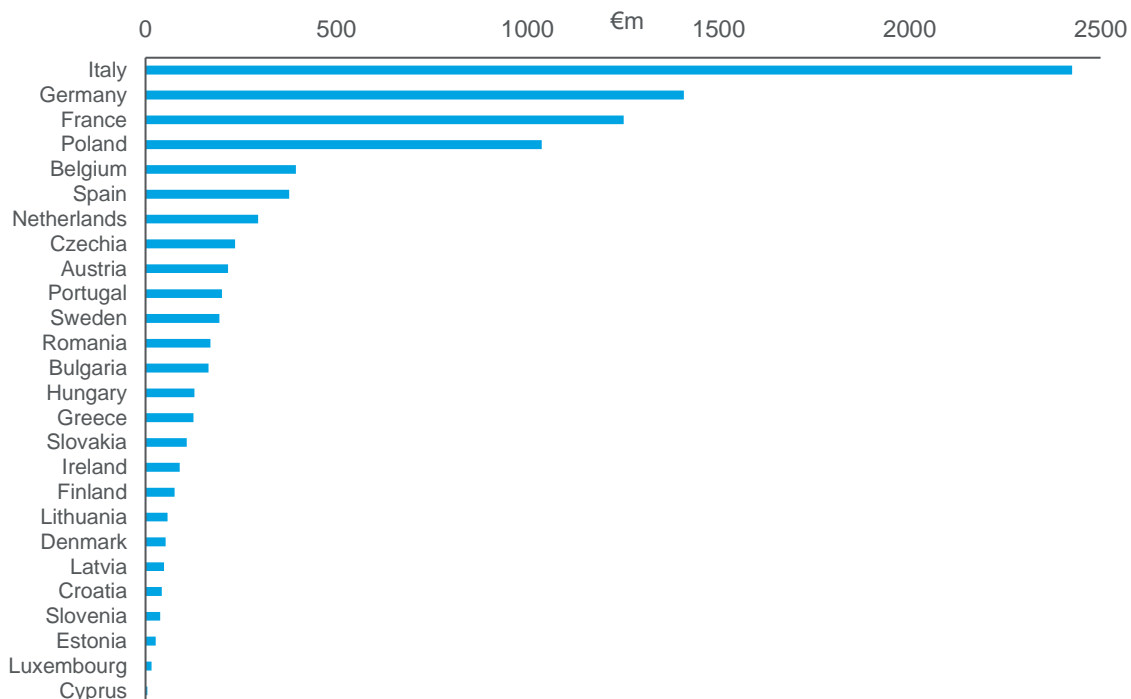


EU Plastic Tax

In July 2020, the European Council agreed on a new levy to be implemented from 1 January 2021 composed of a share of revenues from a national contribution calculated on the weight of nonrecycled plastic packaging waste at €0.80/kg. Around €6-8 billion per year are expected to flow into the general budget of the EU resulting from this levy.

The new levy is calculated on the weight of non-recycled plastic packaging, varying hugely across the member countries; France, Germany, and Italy should see the biggest contribution to the EU budget. The chart below shows the estimated plastic levy that each country would have to pay based on non-recycled plastic waste volume in 2018; a correction mechanism could apply to some countries.

EU Plastic Levy contribution per country – unadjusted (estimate)



Source: Wood Mackenzie Chemicals, Eurostat

The EU Parliament and Commission approved the new levy; national governments are now to decide on how to collect the additional levy. Member states will have to pay the amount calculated by the EU Commission regardless of whether they set up a tax system for this purpose. Broadly speaking, the options for each member state to collect the necessary funding are:

- Subsume in general contributions
- Raise taxes on non-recycling disposal routes (landfill/ energy recovery)
- Pass the tax on to packaging companies and/or plastics producers
- Seek to reduce plastic go into the waste stream

In practice, most countries will try a combination of some or all of these elements thus we could end up with different plastic tax collection schemes from country to country.

Industry trade associations openly disagree with the new measure

The new levy falls under the Multiannual Financial Framework (MFF) and the EU recovery deal to support member countries during the pandemic, with its proceeds going to the general EU budget; thus, plastic industry associations criticised the new EU levy because:

- The revenue of the levy is not planned to be invested into waste and recycling infrastructure and technology, where it would more efficiently increase plastic waste recycling;



- The new tax on plastic waste will likely result in a shift to other packaging materials, even some with a bigger environmental impact, for cost reasons.

Country-by-country plastic tax collection measures

So far, Austria was the only member state which put forward a plan that directly links to the announcement of the new EU plastic levy. The plan, announced in September, comprises:

- 1) a deposit system, a model for which is under development;
- 2) reusable quotas for retailers, which combined with 1) will reduce overall plastic waste and therefore the calculated annual levy to be paid to the EU;
- 3) a producer's levy, meant to pass on the remainder of the EU plastic charge to packaging manufacturers.

While it is still unclear how exactly this levy will be collected within the other European member countries, in 2020, Italy, Spain, and the UK have all proposed taxes on plastics or plastics packaging.

EU Country	New country-level regulations on plastic packaging
Italy	<ul style="list-style-type: none"> • a virgin plastics tax of €0.45/kg is due to come in on 1 July 2021 • tax has already been postponed twice; it was previously meant to be applied from 1 July 2020
Spain	<ul style="list-style-type: none"> • draft legislation approved for plastic waste tax and ban on single-use plastics • the tax of €0.45/kg of plastic packaging is to be implemented in H1 2021.
UK	<ul style="list-style-type: none"> • £0.2/kg tax on plastic packaging with less than 30% PCR content is proposed from April 2022 • plastic packaging is defined as “packaging that is predominantly plastic by weight”; imported plastic packaging will be liable to the tax • industry voiced concerns over how the tax will apply to packaging where introducing increased recycled content is less feasible, e.g. food-contact



Impact to Flexible Packaging markets

What does this mean for flex packaging?

It remains unclear how this EU funding will be collected in most countries; if the countries do decide to collect it from taxpayers rather than paying their contribution from the national budget, this could have a direct impact in multiple industries. One of the more obvious targets is the flexible packaging industry, as the European Council meeting report clearly mentions “plastic packaging waste” in its approved proposal.

Regardless of where in the supply chain the tax would be collected, the expected result is an increase in plastics’ cost. For flexible packaging, this cost increase could be seen on the resins level, films level, converter level, or final consumer. Whichever level of the chain is hit, the cost increase will very likely be passed on to the final consumer. That said, if consumers are not willing to pay the additional fee, then the new plastic tax could shift consumer habits and/or force brands to move towards other substrates, impacting films demand.

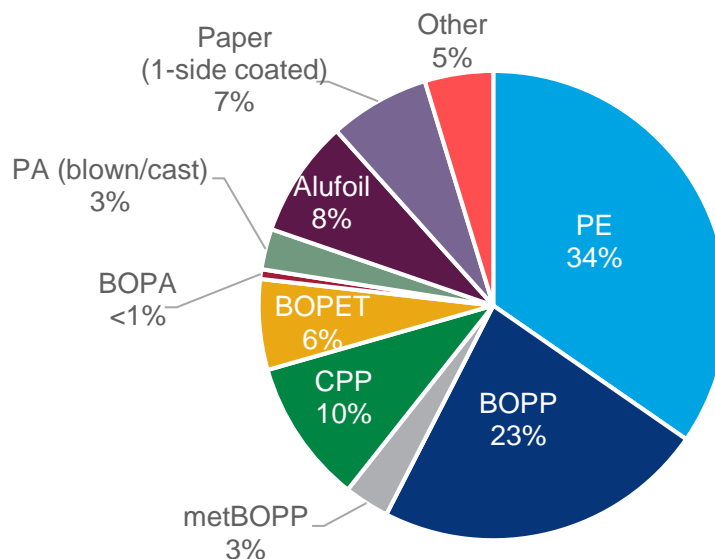
What types of flexible packaging are affected?

Nonrecyclable flexible packaging largely comprises laminate structures, with layers that cannot be fully separated to be recycled back into the supply chain. Many of these structures include polymer films, such as polyethylene (PE), polypropylene (PP), polyester (PET) or polyamides (PA). But they also include other substrates, such as alufoil and paper. It is noteworthy though, that the tax does not extend to nonrecyclable substrates aside from plastics.

What films will be more affected?

In terms of volume, PE and BOPP films are by far the mostly used substrates in flexible packaging.

Flexible Packaging Market 2019 – substrates volume share (kt)



Source: Wood Mackenzie Chemicals

These volume shares include both monomaterial and multimaterial applications. Different substrates tend to be more used in monomaterial or multimaterial structures. For instance, polypropylene films (BOPP and/or CPP) are typically used in monomaterial structures, estimated at 75%-85% its volume usage in flexible packaging applications (food and non-food). Polyethylene (PE) film is also used in monomaterial structures, but to a much lesser extent than PP films (less than half).



Of the main plastic substrates used in flexible packaging, BOPA is nearly always used in multimaterial packaging structures; BOPET follows, with roughly 85-90% of its use in flexible packaging applied to multimaterial packages. As such, PA and PET films are the plastic-based substrates whose bulk of consumption is currently applied into non-recyclable applications, and thus are at a higher risk of an impact from the new EU Plastic Tax.

Wood Makenzie Chemicals' [Films & Flexible Packaging](#) market analysis services provide short-term monitoring and long-term strategic outlooks, including for BOPET, BOPA, and BOPET films.

What end-uses typically use multimaterial structures?

There are multiple structures currently being used in flexible packaging, many of which are multimaterial. Some end-uses (e.g. confectionery) already widely use monomaterial plastic structures or other substrates such as paper, alufoil or paper//alufoil laminates, not included in the range covered by the upcoming tax levy. These end-uses are less likely to be visibly impacted by additional taxes on plastic.

With sustainability concerns on the rise over the last several years, converters and brands have already been focusing on:

- downgauging (i.e. reducing the amount of substrate used per volume of packed product)
- switching to monomaterial, recyclable solutions
- switching from plastic-based to paper-based structures, albeit to a smaller extent.

A new plastic tax could bring further incentive and a faster pace for these switch trends. That said, multimaterial structures are not always easily replaceable. It is often the case that a particular material may perform well in terms of some properties but not others. Combining different substrates by lamination produces a material with the required properties at a good cost.

More demanding packaged products are more likely to stick to the multimaterial structures in use as it is currently very difficult, if not impossible, to mimic the required packaging properties for such goods with monomaterial structures. However, the cost of multimaterial packaging is likely to increase when the EU plastic levy is passed on to taxpayers within each country. Demand sectors that largely use multimaterial structures in its flexible packaging include “meat and fish”, “dairy and cheese” and “medical and pharmaceutical”.

Flexible packaging: trends expected going forward

Monomaterial and PCR content in flexible packaging – a trend that is here to stay

The industry is already moving towards more sustainable choices, namely: recyclable, monomaterial structures – often polyolefin-based – and post-consumer recycled (PCR) content. However, despite a significant amount of discussion, there is a degree of hesitance from the major converters to commit large volumes (and therefore large investment), as such a major decision could take years to unwind if incorrect.

Once the new EU levy is implemented, however, it could boost converters confidence (or pressure?) to make more sustainable switches in bulk. Monomaterial structures and PCR content in substrates are therefore a trend we expect will hold, and we could see a more rapid switch across the board in the coming years. It is important to note that not all plastic-based packaging will be able to switch from multimaterial to monomaterial structures.

The flexible packaging sector could lose its relative cost advantage

Despite the expected continued switch to more sustainable plastic-based packaging, the new EU Levy is still poised to result in an increase in plastic packaging cost, regardless of how the tax will be collected. For flexible packaging, this could mean the sector loses its relative cost advantage.



We could see a shift to other materials (sustainable or not) to avoid additional plastic cost

Also, since the new EU Levy is calculated on a plastic packaging waste basis, we could end up seeing a shift towards other substrates. In some cases, we might see a shift to non-recyclable or only partly recyclable, non-plastic substrate options (e.g. paper/alufoil laminates) or bulkier, heavier rigid packaging non-plastic alternatives – simply to avoid the additional cost on plastics. A switch away from plastics would possibly be further incentivized by the widespread negative consumer perception towards plastic. However, moving towards other packaging formats could result in bigger environmental footprints compared with plastic-based flexible packaging.

Cost increases will eventually be passed on to the end-consumer

Products heavily reliant on multimaterial flexible packaging structures are likely to see a packaged product price increase due to the levy. Even if EU countries decide to impose a tax on the packaging producers (as Austria is planning to do), typically producers will try to pass the additional costs downstream in the supply chain – so eventually the tax should ripple down and reflect in the price of these consumer goods.

The EU levy should be at least partly invested into developing a circular economy - but will it?

It should also be highlighted that, in order to benefit the circular plastics economy, the EU levy collected should be at least partly invested back into the supply chain, allowing the development and improvement of recycling systems. While this does not currently seem to be the case, it would promote a circular economy within the EU while also preventing an increase of harmful packaging solutions based on other substrates; it could also help change consumer's perceptions towards plastic packaging if recycling rates significantly improved.

The EU levy should be a temporary issue, as we move towards a circular economy

Finally, this should be a temporary issue. In the medium-to-longer term, increasing recycling targets and a continued effort towards creating a circular economy under the EU Green Deal means that the additional charge will eventually lose applicability when these targets are met.

One more key question remains: should other materials be concerned with a looming EU tax bill?

Wood Mackenzie Chemicals provides extensive short-term and long-term analysis for flexible packaging markets; to learn more about our Flexible Packaging Long-Term service and our expectations for this market over the next five years, please contact support@woodmac.com.

Disclaimer

Strictly Private & Confidential

These materials, including any updates to them, are published by and remain subject to the copyright of the Wood Mackenzie group ("Wood Mackenzie"), and are made available to clients of Wood Mackenzie under terms agreed between Wood Mackenzie and those clients. The use of these materials is governed by the terms and conditions of the agreement under which they were provided. The content and conclusions contained are confidential and may not be disclosed to any other person without Wood Mackenzie's prior written permission. Wood Mackenzie makes no warranty or representation about the accuracy or completeness of the information and data contained in these materials, which are provided 'as is'. The opinions expressed in these materials are those of Wood Mackenzie, and nothing contained in them constitutes an offer to buy or to sell securities, or investment advice. Wood Mackenzie's products do not provide a comprehensive analysis of the financial position or prospects of any company or entity and nothing in any such product should be taken as comment regarding the value of the securities of any entity. If, notwithstanding the foregoing, you or any other person relies upon these materials in any way, Wood Mackenzie does not accept, and hereby disclaims to the extent permitted by law, all liability for any loss and damage suffered arising in connection with such reliance.

Copyright © 2021, Wood Mackenzie Limited. All rights reserved. Wood Mackenzie is a Verisk business.



Wood Mackenzie™, a Verisk business, is a trusted intelligence provider, empowering decision-makers with unique insight on the world's natural resources. We are a leading research and consultancy business for the global energy, power and renewables, subsurface, chemicals, and metals and mining industries. For more information visit: woodmac.com

WOOD MACKENZIE is a trademark of Wood Mackenzie Limited and is the subject of trademark registrations and/or applications in the European Community, the USA and other countries around the world.

Europe +44 131 243 4400
Americas +1 713 470 1600
Asia Pacific +65 6518 0800
Email contactus@woodmac.com
Website www.woodmac.com