

UK GOVERNMENT CONSULTATION ON CHOICE OF UNITS OF MEASUREMENTS: MARKINGS AND SCALES

A COMMON WEAL RESPONSE

INTRODUCTION

Before and since the 2016 Brexit vote, the UK has struggled to come to terms with its identity as a medium-sized, post-imperial state, alone in a world of increasingly strengthening multi-member trade blocs and with wrestling with the consequences of such a state leaving its nearest trading bloc, the European Union. One of the symptoms of this identity crisis has been to seek marks of distinction away from that previous EU membership and one of the political pushes to achieve that has been an appeal to the pre-EEC/EU history of the UK. The Government has claimed that EU regulations have prevented merchants in the UK from selling goods weighed in imperial measurements. This is a misleading simplification in that the EU does indeed mandate metric measurements for goods but it does allow for imperial measurements so long as they are displayed alongside and not more prominently than metric equivalents. Thus no legislative change is required to allow for, say, flour to be sold in a 500g bag, a 500g (1.1 lbs) bag, a 453.59g (1lb) bag or even a 1 lb (453.59g) bag. What is not allowed is for the flour to be sold in a bag to be sold only marked in imperial measurements without the metric equivalent or for the metric equivalent to be less prominent than the imperial one. The UK Government is currently

consulting on a post-Brexit legislative change to allow for this kind of imperial-only measurement for domestic trade (the consultation explicitly rules out applying the change to internationally traded goods on the basis that almost the entire rest of the world is fully metric).

Metric does indeed have some disadvantages when it comes to measurement. Its basic units of measurements were historically arbitrary (as all historic measurements were) but are now based on fundamental physical concepts (the metre being defined as the distance travelled by light in a vacuum in the duration of 9,192,631,770 periods of the radiation corresponding to the transition between the hyperfine levels of the unperturbed ground state of the caesium-133 atom). Opaque definition aside, what the metric system gains in accuracy and precision it does lose somewhat in the “human-ness” of its scales. The imperial system is scaled for a human world of manipulating objects by hand. A pound mass of organic matter (such as food) is about the size of an average handful and can be held in one hand comfortably. The foot was once literally measured in relation to the relevant human body part. However, the world of the 21st century is now one of advanced, precision manufacturing, globe-spanning logistics chains and the provision of volumes of goods on a scale that would have astounded merchants once used to weighing their personal “merkat stane” against the local tron before a day’s trading. Beyond an illusory appeal to patriotic revanchism, the UK Government must demonstrate that a policy fundamentally affecting the trading weights and measures of the nations of the UK will have tangible economic, social and environmental benefits. That benefit has not been demonstrated and cannot be found in any inherent or intrinsic superiority of the imperial measurement system over metric and thus this submission opposes outright the proposed legislation.

QUESTIONS

1(a). Are there any specific areas of consumer transactions that should be a priority for allowing a choice in units of measurement, and why?

As current legislation already allows for a “choice of units of measurements” so long as imperial units are no more prominent than the legally mandated metric units then the question of priority is irrelevant. The deeper question is whether or not goods will be sold in convenient units of either metric or imperial. There is a substantial difference in selling, say, a bag of flour marked and weighed as 500g (1.1 lbs) and transitioning to selling a bag of flour marked and weighed as 1 lb (453.59g) with all of the industrial, production and logistical considerations that kind of deeper retooling entails and which shall be outlined in more detail below.

1(b). Are there any specific areas that you think should be excluded from a choice in units of measurement, and why?

The consultation notes already provide for an exclusion for scientific measures and for international trade. This exclusion should also be extended to medical equipment and medicines (for the obvious reason of the health risks involved in incorrect dosing). Patients are likely to be confused if given the “choice” between off-the-shelf medication with doses variously described as, for example, 200 milligram or 7 milliounce. Building and construction equipment should also be exempt again for the obvious reason – borne out by centuries of lost lives through construction failures – that mistaken or mixed measurements in the field can be catastrophic and may cost lives. Exclusions should also apply to any other field that may impact the health and/or wellbeing of people or environment should there be any confusion or conflation between well-understood metric units and ill-understood imperial units.

2. What would be the consequences of your business having the freedom to sell products in imperial measures, if you wished?

Transitioning goods currently being sold in

metric measures to imperial measures will immediately create a barrier to trade for goods which may be traded outwith the UK (regardless of the stated intent to not apply the proposed legislation to exports). This would also present a clear and present risk to goods traded from Great Britain to Northern Ireland where such goods could clearly “leak” across the border into Ireland and the rest of the EU Single Market. The implications for selling packaged goods in imperial measures are clearly negative. Some transitioned goods will require new packaging and possibly even new manufacturing processes for that packaging especially in sectors which require moulded plastic or glass packages. These negatives will hit most severely in cases where the UK has limited manufacturing capability for such packaging and must import it. Metric-only countries are likely to charge a premium given the limited market size in the UK for such specialised packaging and the option of buying from “imperial-measure” countries like the USA are likely to be limited by the expense of transit, trade tariffs, and the fact that many US customary units (such as the gallon) are different from their UK Imperial measure namesakes.

Wherever remeasuring goods will require an active retooling of production equipment (such that something could be built in inches rather than mm or similar) then this is likely to become an even more acute problem. Retooling a production line is a significant capital expense and the last time that the UK did it – during the transition from imperial to metric – it came at a time of increasing automation that required such retooling anyway. No such paradigm shift is on the manufacturing horizon this time around.

The prospect of having to create different goods, different packaging and possibly even parallel production lines for fundamentally similar products because one is destined for export and the other for the domestic market is certain to raise the cost of production of those goods in both the domestic market and export lines.

Further, there may be supply chain implications in storing and transporting goods that have been redenominated in imperial units. For example, a pallet of 100 2lbs bags of produce may take up the same effective volume of space in a transit

van than 100 1kg bags of the same produce. If this is the case and given that 100 units per pallet is a more convenient unit for accounting purposes than 110 units per pallet then repackaging the bags into imperial measures could imply at least a 10% increase in transport costs to move a large quantity of said produce.

The only positive business case for promoting imperial measures in the 21st century comes from an appeal to imperial-measurement natives who have struggled to transition to metric measures (likely an extremely small and declining customer base) and from pro-Brexit revanchists like those pushing this policy (not likely to be a much larger customer base than the above). As both of these groups likely buy metric products already, it is extremely unlikely that the advantages will lead to more products being sold, merely a small displacement of economic activity from one business to another.

3(a). If you had a choice, would you want to purchase items:

(i) in imperial units?

(ii) in imperial units alongside a metric equivalent?

I would not choose an imperial-measured product over a metric-measured product except in areas where I already do (a pint of beer, for example). Even as someone educated in both metric and imperial and who has experience working in the USA, metric measurements are much easier to compare to each other (such as the comparative nutritional contents of 100g or 100ml of various foodstuffs). Given that many food packages give unrealistic estimates of what they consider to be a “portion size” of the product, it is important to be able to assess – for example – how many calories are contained in a 500g box of food given the stated calorie content of 100g of that food. This is much harder to do given a 1lb box printed with the nutritional content per 1oz.

Even if a product is sold primarily in imperial with a metric equivalent I would be less likely to buy. I would be concerned about producers using

the transition from a 500g box to a 1lb/453.59g box to hide a price increase in the same way that concerns were raised about similar price increases during the transition from imperial currency to metric.

3(b). Are you more likely to shop from businesses that sell in imperial units?

If a business sold products exclusively in imperial measures then I would be less likely to buy from them. Even if they sold in imperial measurements with metric equivalents, I would be less likely to buy for the inefficiency reasons mentioned below and because comparing such mixed units is likely to be complex and confusing.

3(c). Do you foresee any costs or benefits to you from businesses being permitted to sell:

(i) in imperial units?

(ii) in imperial units alongside a metric equivalent?

Many products rely on their ratios with other products in their interactions. Mixing metric and imperial can lead to inefficiencies and poor results. Making a “pound cake” with a 500g bag of flour leads to a wastefully small amount of flour left in the bag. However, trying to make a cake that calls for 500g of flour when the flour is sold in 453.59g bags would result in a consumer having to buy two bags of flour – substantially increasing food costs for no advantage. For this reason, imperial measures would only make sense if they are not mixed alongside metric units and this submission does not in any way advocate the dropping of the metric system.

There are few, if any, tangible cost or other benefits to buying in imperial units even when a metric translation is in place. The natural “human-sized” nature of imperial measures is irrelevant in an era of precision and accurate calculation.

3(d). Do you have experience of buying solely in imperial units?

Yes. I have worked in the USA where US Customary Units are similar (though often not identical to) UK Imperial measures. In a country where such measures are ubiquitous, it makes a certain sense to standardise against them. However, I also have experience in the US of mixed metric and imperial units causing problems such as equipment installation failures caused by shipping a metric part instead of an imperial one. The part itself had a unit cost of a few dollars but the rectification caused by the unit confusion resulted in tens of thousands of dollars worth of costs, several weeks of manufacturing time and an estimated 2.66 metric tonnes (2.618 imperial tons or 2.932 US tons) in additional carbon footprint due to two unnecessary transatlantic flights required to effect the delivery and installation of replacement parts.

4. What potential impacts might there be on regulatory activity, including any costs or benefits?

A transition to imperial only or “imperial first” goods is extremely likely to cause a negative impact with trade in Northern Ireland and, by extension, in the EU. It is also likely to negatively impact sectors such as the devolved settlements in Scotland and Wales. For this reason, either relevant power reservations on trading standards, product labelling and weights and measures should be removed from Section 5 of the Scotland Act and equivalent legislation covering Wales and Northern Ireland, or specific opt-outs over product labelling should be devolved to the respective Parliaments.

Regulatory activity specifically is likely to be negatively impacted as controls over allowable contaminants or similar are almost exclusively measured in metric (be it grams/kg, percentages or parts per million). People who are more used to metric exclusive or “metric first” environments may find it difficult to convert between systems even when both units are present and this may contribute to underweight or overweight items being sold – the cost of avoidance in this

regard will likely fall on trading standards if the relevant sectors are appropriately regulated and standards enforced or will otherwise fall on consumers if they are not. Given that the UK Government has given no indication that it plans to increase the budget of trading standards departments (quite the opposite), the latter

scenario is far more likely.

- Dr Craig Dalzell, Head of Policy and Research, Common Weal

Response on behalf of Common Weal.