Tradition (re-)defined: Farm v factory trade-offs in the definition of Geographical Indications, the case of Three Counties Cider

Abstract

The UK is the largest international market for cider. Around 11 per cent of the UK market is accounted for by 'craft' or traditional ciders made by both small scale 'farm' and large-scale 'factory' producers. Drawing on the worlds of production framework we examine the contrasting perspectives of farm and factory producers on the geographical indication (GI) awarded to Three Counties Cider in 1996. Interviews with producers highlight commonalities of view across both groups around weak enforcement and a lack of understanding among UK consumers of geographical indications of origin. Both are thought to undermine the producer, consumer and tourism benefits of the GI. Differences of view between farm and factory producers emerge, however, about the value of the GI in protecting traditional production values and artisanal producers. This relates specifically to the permissiveness of the GI in terms of allowing non-traditional production methods more commonly associated with large-scale production. While consistent with the factory production of craft cider, farm producers argue that the allowance of non-traditional production methods reduces the value of the GI in terms of protecting food heritage and artisanal production. Our analysis emphasises the tensions implicit in the codification of heritage food products in legal instruments such as GIs and the challenges of formal heritagisation processes. Our results also suggest lessons for the UK's Protected Food Names scheme which will come into operation after Brexit and highlight the tension for those developing GIs between supporting artisanal production and protecting, the potentially more economically significant, factory-based production of traditional products.

Keywords: Geographical Indications of Origin; Food Heritage; Craft Cider; Protected Food Names.

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1. Introduction

Food heritage has been identified by the United Nations World Tourism Organization (UNWTO) as playing a leading role in global cultural tourism (Ramli et al. 2016), as an important element of cultural and societal identity, and as a trademark or symbol of local heritage (Nor et al. 2012). In some contexts, historical events (e.g. invasions, occupations) create a clear distinction between foods which are considered 'traditional' and more recent additions (Gurney et al. 2015), with traditional or heritage cuisines identified with either food products or culinary techniques specific to a particular locality (Alalwan, Mandeel and Al-Sarhani, 2017)[1]. This link between a traditional food item and a specific locality provides the basis for a Geographical Indication of Origin or GI (Walch et al. 2018). Hence: 'A GI is a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin' (WIPO, 2019). As such, GIs provide a legally recognised, intellectual property right protecting products from imitation, and codifying the association between a product, its place of origin and its historical, social and cultural significance (Agarwal and Barone, 2005; Medeiros, Passador and Passador, 2016).

In a European context, the general term 'GI' covers two separate legal forms of food protection with differing requirements in terms of local content: Protected Designation of Origins (PDO) and Protected Geographic Indications (PGI) (Van Der Ploeg and Renting, 2000). Essentially similar legislation (Regulation 2082/92) also created the Traditional Speciality Guaranteed (TSG) scheme covering traditional products not linked to a specific location but which were distinguished by their recipe or production method (Fox, Ottogalli and Fox, 2004; Rippon, 2013). GIs have attracted significant academic and policy attention in recent years due to their potential role in promoting the historical and cultural heritage of products, conserving local cultures and traditions, and fostering local identities (Suh and MacPherson, 2007; Medeiros, Passador and Passador, 2016). Examples of traditional products related to specific localities

[1] For example, in Native American cultures, traditional foods have been called "pre-contact food" (Gurney et al. 2015). Traditional Native American food types include 8,000 identified varieties of corn and a myriad of other fruits and vegetables, fish, shellfish, elk, and deer.

are Champagne, Cuban Cigars, Roquefort Cheese, and Turkish Carpets (Dogan and Gokovali, 2012). The distinguishing feature of GIs is the link they establish between place and product and therefore traceability. Other forms of labelling (e.g. organic, fair trade, rain forest friendly, etc.) which "travel with the product" inform the consumer about the process of production but not its geographic origin (Barham, 2002). The place-based nature of GIs can help to create product differentiation (Tregear, Kuznesof and Moxey, 1998) and create customer loyalty (Bramley and Bienabe, 2012). GIs can also create a sense of relationship with a place (Walch et al. 2018) whilst conveying cultural identity (Marie-Vivien and Biénabe, 2017).

Here, we examine how, in the process of formalisation and codification, a legally recognised GI may itself become contested territory with implications for consumer and producer value. Our theoretical lens draws on the notion of 'worlds of production' developed by Salais and Storper (1992) and Storper and Salais (1997) and is based around two potentially conflicting producer identities: 'farm' which we associate with small scale, artisanal production of traditional products using only traditional approaches; and 'factory' which we associate with industrialised and automated production which takes advantage of modern food technologies to produce both traditional and non-traditional products (e.g. flavoured ciders). As in the craft beer sector in urban settings (Wallace, 2019), farm-based production of cider and perry has seen a resurgence in recent years. The value of a GI in supporting traditional artisanal production depends, however, on its scope and the range of allowable production methods. For example, in 2009 a PDO application for Halloumi cheese was developed by a consortium of large-scale Cypriot producers based on a recipe utilising only cows' milk. This contradicted local custom in which Halloumi was typically based on a combination of cows' milk and goats' milk. After considerable local controversy over the recipe the application was withdrawn in 2012 (Wifellz 2013, p. 271)[2].

[2] A revised application for a PDO for Halloumi cheese has now been accepted and published (although not yet registered) containing the following provision: 'Milk (fresh sheep or goat's milk or a mixture thereof, with or without cow's milk added), rennet (but not pig rennet), fresh or dried Cypriot mint leaves (Mentha viridis) and salt. The proportion of sheep or goat's milk or the mixture thereof must always be greater than the proportion of cow's milk. In other words, when cow's milk is used in addition to sheep or goat's milk or a mixture thereof, the proportion of cow's milk in the Halloumi must not be greater than the proportion of sheep or goat's milk or the mixture thereof' (Official Journal, 28.7.2015, 246/9, paragraph 3.3).

We focus on two research questions in relation to the Three Counties Cider PGI granted in 1996 and which covers the English counties of Herefordshire, Gloucestershire and Worcestershire (Figure 1)[3]. First, what characterises the views of the Three Counties Cider GI from the farm and factory perspectives? Second, how are these views shaping the use of the GI and its economic value and impact on food heritage? We aim to contribute to the development of food heritage and related tourism by considering how GIs support the different logics implicit in the farm and factory 'worlds of production'. GIs can, for example, support the type of new 'assemblages' or alternative food networks discussed in Marsden et al. (2018). Contrasting these perspectives highlights the tension implicit in the codification of tradition in legal forms such as Geographical Indications as well as operational issues which can undermine the effectiveness of GIs. Our results also focus attention on GIs as part of the broader food governance system suggesting lessons for those drafting or re-drafting GIs. This will be particularly important for the UK as we reconstruct national food governance structures post-Brexit and transition from the European GI scheme to the Protected Food Names scheme post-Brexit. Our analysis also has implications for other countries seeking to maximise the developmental value of GIs for producers, consumers and food heritage and tourism.

The argument is developed as follows. Section two reviews existing literature and outlines our theoretical framework. In section three we provide a brief overview of the cider and perry sector in the UK. Section four outlines our research method and sections five describes our case study findings and analysis. We draw conclusions in section six.

2. Conceptual development

Our conceptual approach draws on conventions theory and, more specifically, the notion of 'worlds of production' (Salais and Storper 1992; Storper and Salais 1997) which has been used extensively in food studies to represent alternative food economies (Ponte, 2016). Cidell and Alberts (2006), for example, draw on conventions theory (although not explicitly the Storper and Salais (1997) framework) to examine perceived quality differences in chocolate between European countries. Their analysis emphasises geographical variations in the socially constructed nature of 'quality' which in chocolate revolves around the inclusion of vegetable fats other than cocoa butter and chocolate's milk content (Ilbery and Kneafsey, 2000). Social

[3] We use this term – commonly used in marketing Three Counties Cider – to cover six essentially similar PGIs awarded at the same time. These relate to Herefordshire Cider, Gloucestershire Cider, Worcestershire Cider, Herefordshire Perry, Gloucestershire Perry, and Worcestershire Perry.

and personal linkages may also shape local practices contributing to the success of firms in specific food worlds (Guthey, 2008) as well as their ability to effectively communicate unified and appealing marketing messages (Sanchez-Hernandez, 2011). The worlds of production view therefore starts from the argument that in any locality (or sector) wealth creation is the result of specific routines and relationships established and developed by different actors – growers, producers and consumers. These routines and relationships will reflect wider market and commercial conditions but may also reflect know-how - uncodified knowledge specific to either firm or a locality. This know-how 'gives regions and localities comparative advantages in given industrial sectors. The uneven geography of economic activities reflects, then, a geography of knowledge, that is, the varied spatiality of codified and non-codified knowledge' (Morgan et al. 2006, p. 21). Each world of production then involves 'coherent combinations of technologies and markets, product qualities, and quantitative practices of resource use' which define the production and marketing of food or other products (Salais and Storper 1992, p.171). Storper and Salais (1997) characterise worlds of production based primarily on two product characteristics: standardised or specialist; generic or dedicated. Standardised and generic products are characteristic of industrialised food production, a world in which undifferentiated products are aimed at large groups of consumers, and producers seek to automate and benefit from economies of scale. At the other extreme, artisanal food production would be characterised by labour-intensive production methods, and potentially idiosyncratic or specialist, production methods to produce products dedicated to specific groups of consumers. Each 'world' - industrialised food production and localised artisanal food production - has their own internal rationale, logic and consistency but each embodies very different and potentially conflicting values (Sanchez-Hernandez, Aparicio-Amador, and Alonso-Santos, 2010) and knowledge bases (Manniche and Testa, 2010). Both may also co-exist within any locality fulfilling potentially complementary market roles but having shared dependencies on local inputs, know-how, technologies and regulation.

Blundel and Tregear (2006) in their insightful history of English cheese-making provide a good illustration of the tensions between farm and factory production and the role of technology, trade and regulation in shaping each world of production and their interactions. Developed originally in the UK, it was the application of Harding's Cheddar system which provided the basis for factory production of cheese in the 1870s in the USA through 'potential scale economies associated with the factory system … while also being unencumbered by

established production practices and local market preferences' (Blundel and Tregear, 2006, p. 718). Imports from factories in the US, Canada and New Zealand increased through the late 1800's while cheese production in the UK remained largely farm-based until the mid-1930s. In the late 1920s around 18 per cent of UK cheese production was factory produced, compared to 95 per cent by the late 1950s (Blundel and Tregear, 2006, p. 730). Key to this transition was regulation, the establishment of the Milk Marketing Board and wartime efforts to regulate milk supply. More recently, processes of trade liberalisation and the increasing globalisation of food supply chains - McDonaldisation or Coca-Colaisation (Ritzer, 2000) - have encouraged consumers to view food as coming from corporations rather than farms (Caraher and Coveney, 2004). 'This is a methodological moulding of taste with the large corporations now the primary drivers of dietary change, controlling production and distribution chain. Globalisation of the food chain introduces more opportunities for breakdowns in the safety system and for more people to be affected by any such lapses' (Caraher and Coveney 2004, p. 592).

Contrasting with this industrialised or 'factory' view of food production, grassroots movements such as slow food (Hendrikx et al. 2017; Grunert and Aachmann, 2016), local or alternative food networks (Sadler, Arku and Gilliland, 2015) or assemblages (Marsden et al. 2018) have developed which have emphasised localised, artisinal or 'farm' production. Parrott et al. (2002) regard these developments as contributing to a new geography of food in which products with localised identities sit alongside commoditised food products. They argue that this geography itself depends on national food cultures with 'a 'southern' culture, with its wealth of local and regional food specialities, and a functional, commodity-driven, 'northern' European culture' (Parrott et al. 2002, p. 246). The UK, the site of our own empirical analysis, sits firmly in the Northern European group defined by Parrott et al. (2002) characterised by what Ilbery and Kneafsey (2000, p. 319) called a 'placeless foodscape' in which food markets are dominated by commodity products.

Early discussion of worlds of production saw these as defined primarily by different economic logics. Others have argued, however, that connecting world of production with the geography of food also requires a consideration of cultural, ecological and political logics (Morgan et al. 2006). Within slow or alternative food networks, for example, individual motivations vary substantially with producers variously seeing the adoption of artisanal production methods as

preserving collective heritage, strengthening links to the locality or preserving traditional production practices (Bowen and De Master, 2014; Lotti, 2010). The same range of cultural, historical and ecological motivations can also be attributed to consumers of artisanal or heritage products (Rytkonen et al. 2018; De Boni et al. 2019), attitudes which may be reinforced by either historical or current media narratives. For example, Rossel, Schenk, and Eppler (2018) document the trend in German wine journalism away from a focus on French wines towards domestically produced artisanal wines with potentially positive implications for local tourism and sustainability (Ermolaev, Yashalova, and Ruban, 2019).

The suggestion by Morgan et al. (2006) of a need to look beyond purely economic logics in defining food worlds is reflected in more recent discussion about transformations in food systems and the role of food system regulation and governance. Marsden et al. (2018), for example, contrast European and UK food policy which has emphasised the provision of low cost food choices through the Common Agricultural Policy supported by the power of increasingly concentrated food retailing with the grass-roots development of assemblages that 'are place-based … based on developing shorter supply chains between producers and consumers … as well as having strong ecologically sustainable goals and visions' (Marsden et al. 2018, p. 1303). Food security crises as well as increasing evidence of the negative impacts of current food policy on human health, reflected in issues around obesity, have they argued undermined the legitimacy of established governance systems – cheap food, CAP – emphasising the importance of these 'alternative assemblages'.

As regulatory instruments geographical indications of origin (GIs) are an element of food policy which sits alongside more general aspects of the European food governance system. However, the implicit link between GIs and aspects of local culinary and food heritage, with implications of authenticity and product quality albeit at potentially higher cost, is inconsistent with the European policy emphasis on low cost food (Sylvander and Allaire 2007). Indeed, the evidence suggests that GI labelled food and drink products sell at a price premium. For example, Deselnicu et al. (2013) find an average percentage price premium for GI labelled products of 15.1 per cent although this varied widely between products (standard deviation 26.1 per cent). These results are confirmed by the more recent meta-analysis by Leufkens (2018): On average PDOs generated a price premium of 26.6 per cent compared to 8.7 per

cent for PGIs. Premium prices for GI products benefit producers and consumers directly but may also have wider benefits to local communities and supply chains through employment creation and agro-tourism. Such benefits arise because GIs are a marketing and promotional tool which may help to overcome problems of information asymmetry and consumers' uncertainty about product quality or authenticity (Rangnekar, 2004). This may have benefits for local food tourism, particularly where heritage foods recognised through GIs are promoted through other localised development strategies (Bramley and Bienabe, 2012).

GIs also have a role in motivating the heritagisation of food products involving the social process of conservation, curation, research and socialisation (Bessière, 1998). This process may itself encourage the development of new social networks. For example, Quinones-Ruiz et al. (2017) document the eight-year development process of the Sorana Bean GI which worked effectively as a collaborative venture due to the small number of producers involved: 'the GI process fostered the motivation to produce high-quality beans and increased the local pride of producers … boosted the reputation of Sorana bean, favouring its direct marketing … and opened up the access to new markets and marketing channels' (Quinones-Ruiz et al. 2017, p. 183-4). This, in turn, led to positive benefits in terms of sustainability and the value of other local agricultural products. These positive downstream benefits of GIs have also been noted elsewhere with benefits for producers and consumers (Jena and Grote, 2012). However, as Guan, Gao, and Zhang (2019, p. 3) comment 'food heritagisation is far from a technical development process, but is a contested and negotiated social process in which various actors seek to articulate certain foodstuffs as heritage for their own benefits' (Wifellz, 2013).

Just like the heritagisation process itself, the process of developing and defining GIs with the requirement to codify both products' historical and local origins and their specific attributes can be a contentious process favouring different groups of producers (Quinones-Ruiz et al. 2017). For example, Rodrigues and Lopez (2017) examined the provisions of a group of Spanish wine PDOs and note the provisions of some PDOs are oriented to large-scale, industrialised production while others reflect more specific localised artisanal production (see also Rodriguez, 2018). Reflecting broader tendencies towards craft production of beer and cider, creating opportunities for growers and producers (Miles et al. 2020), their analysis also identifies PDOs which have been redefined towards more artisanal production.

3. Cider in the Three Counties and the Cider GI

3.1 Cider and Perry in the Three Counties

The UK is the largest international cider market accounting for 37.5 per cent of global volume in 2018 with two-thirds of this market (65 per cent) being apple cider, 31 per cent being flavoured ciders and 4 per cent pear cider (or perry)[4]. Total cider sales in the UK in 2019 were around £3.1billion, of which £1.1billion were high street retail sales and £2.0billion through the hospitality sector. In terms of high street retail sales, the cider and perry market was worth just over £1billion in 2015, around a quarter of that of beer (£3.7billion) and spirits (£3.9billion) and a fifth of that of wine sales (£5.4billion)[5]. This included sales of imported Ciders such as Koppaberg which itself was the fifth strongest BrandIndex score among beers and ciders in the UK in 2018/19[6]. Sales of craft cider account for around 11 per cent of the hospitality trade and 11.6 per cent of high street sales making the UK craft cider sector worth around £0.35billion in 2019[7]. Around two-thirds of the UK sales of ciders are through hospitality outlets – pubs, restaurants, hotels etc. This proportion is similar for craft ciders although this channel is dominated by the larger producers. Premiumisation has seen large UK supermarket chains stocking cider from smaller producers although in most cases the craft ciders sales remain primarily to regional or local stockists (hospitality and retail), on-line or to visitors. Very few small-scale producers export.

Growth in the UK Cider/Perry market was strong in the 2006-2013 period with weekly spend (per person) doubling from around 8 pence to 17 pence reflecting an increase in average consumption per person pa from 12.4 to 13.5 litres. Average per person spend has remained stable in more recent years although the average consumption per person pa fell to 11.4 litres by 2017[8]. The craft sector has shown continued growth over the last few years dominated by apple cider (97 per cent) although the craft market is dominated by a small number of brands and companies. In 2019, the top ten craft cider brands accounted for 84 per cent of craft cider

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[4] Source: Weston's Cider Report 2020, p. 11. Available at: https://www.westons-cider.co.uk/download-cider-report/

[5] Source: UK Wine Market Report 2016, p. 4. USDA Foreign Agriculture Service. Accessed via Statista, Cider Market in the UK Dossier, Accessed 20th April 2020.

[6] Source: YouGov Brandindex. Accessed via Statista, Cider Market in the UK Dossier, Accessed 20th April 2020.

[7] Source: Weston's Cider Report 2020, p. 29. Available at: https://www.westons-cider.co.uk/download-cider-report/

[8] Sources: DEFRA Family Food survey December 2019, British Beer and pub association, Statistical Handbook 2018, Table B7. Accessed via Statista, Cider Market in the UK Dossier, Accessed 20th April 2020.

sales and these ten brands were produced by five companies (Westons, Thatchers, Aspinals, Wyld Wood and, Savanna)[9]. The National Association of Cider Makers (NACM) suggests that there are currently about 500 cider producers in the UK with the vast majority being small artisanal producers[10]. Across the Three Counties (Herefordshire, Worcestershire, and Gloucestershire) the sector is dominated by three larger companies producing branded products (Bulmers, Westons and Merrydown), a medium-scale producer of generic ciders for supermarkets' own-brand sales, and around a hundred smaller, single-site producers.

3.2 The Three Counties GI

The six PGIs covering Cider and Perry separately for each of the Three Counties were granted in June 1996 following a completed application in April 1995[11]. In contrast to some other UK GIs (e.g. Stilton Cheese) the application for the Three Counties GI was made by a producer group specifically put together for the purpose and co-ordinated by larger local producers. Ilbery and Kneafsey (2000), writing relatively soon after the Three Counties PGI was granted, quote one of those involved as saying:

> "The producer group in our case is an ad hoc group formed solely for the purposes of obtaining PGI status. It is not a marketing group … members decided to leave the promotion of products to individual producers as they saw fit" (Ilbery and Kneafsey, 2000, p. 321).

As with all GIs, the product specifications refer both to the tradition of cider and perry production in the Three Counties as well as providing a detailed product description and specification. Some aspects of this specification are notable and were the focus of comments from a number of producers in our interviews. First, PGIs – like that covering Three Counties Cider – require localised production but not necessarily localised inputs. The Three Counties GI, however, allows only the use of locally grown apples and pears of particular types. The local origin of fruit required by the GI is consistent with both artisanal and factory-based production, however, the restriction on using bittersweet apples was seen by some producers

[9] Source: Weston's Cider Report 2020, p. 29. Available at: https://www.westons-cider.co.uk/download-cider-report/
[10] See https://cideruk.com/.
[11] http://ec.europa.eu/agriculture/quality/door/documentDisplay.html?chkDocument=1528_1_en

as unnecessarily restrictive. The requirement of the GI that fruit be locally grown also imposes compliance and monitoring costs on registered producers and a need for the effective enforcement. Both may represent a barrier to engagement with the PGI for smaller producers.

Second, methods of cider and perry production vary from producer to producer depending both on the scale of production and producer attitudes. Artisanal production in smaller units may involve using apples or pears from a producer's own orchards, relying on wild yeasts, before local maturing and bottling to produce a distinctive product. At the other extreme, larger producers will be adopting production approaches aimed at more consistent products. This might include treating picked fruit with Sulphur Dioxide to control oxidation and kill wild yeasts, using cultured yeasts or concentrating juice for future use. Additional sugar may also be added prior to fermentation to allow specific alcohol levels to be achieved. Secondary fermentation and maturation may then be followed by filtration or clarified using various fining agents[12]. Further dilution or sweetening with either apple juice or sugar may then be undertaken prior to packaging. Each of these processes – typically associated with large-scale factory production rather than artisanal production - is permissible within the terms of the Three Counties Cider GI[13].

4. Data and methods

Our study objective was to explore the perspectives of farm and factory producers on the Three Counties GI and the implications for its impact on producer and consumer benefits. Following Vandecandelaere et al. (2010) and Chabrol, Mariani and Sautier (2017) we adopt a case study approach, participants being recruited using convenience sampling and proactive search (Marshall and Rossman, 2011). Convenience sampling was adopted where we were able to work with a producer group (the Three Counties Cider Association) to identify producers willing to be interviewed within the project timescale. Other producers were identified through web searches, personal contacts and networking and through information provided by Trading Standards departments. Potential participants were first contacted by email to explain the

[12] A fining agent is a chemical addition such as gelatine used to clarify cider, beer or wine during the later stages of production and before bottling.
[13] See https://ec.europa.eu/agriculture/quality/door/registeredName.html?denominationId=340

project and arrange interviews. Interviews were conducted by telephone or face-to-face and recorded with the consent of the participant. Interviews were subsequently transcribed.

Interview questions focused mainly on traditional knowledge of products, the benefits and dis-benefits of having a GI and any impacts on the local economy. They were developed from a detailed literature review of prior studies of the producer and consumer benefits of GIs and covered four key themes. These were:

- Product price and price premium – the market price of the product (Defrancesco, Orrego and Gennari, 2012; Hughes, 2017; Mevhibe and Gunes, 2010) and any price premium due to the GI relative to other similar products (Colic et al. 2017; Vandecandelaere et al. 2018; Agarwal and Barone, 2005; Alalwan et al. 2017; Aviat et al. 2012).
- Producer benefits in terms of increased sales volumes or incomes (Dogan and Gokovali, 2012; Vandecandelaere et al. 2018) and profitability (Malorgio et al. 2008; Medeiros et al. 2016; Tashiro et al. 2018).
- Value chain benefits to other related organisations (Hughes, 2017; Mancini, 2013; Suh and MacPherson, 2007; Malorgio et al. 2008).
- Network or support organisations contributing to marketing (Dogan and Gokovali, 2012).

We introduced continuation probes to clarify (and expand) questions or sentences without derailing the conversation (Rubin and Rubin, 2005). Fieldwork was separated into pilot and main phases. The pilot phase covering three producers was conducted in June 2019 and was used to check the wording and relevance of questions. Main fieldwork covering eight further producers was undertaken between July to September 2019 involving producers of different sizes and including GI registered and non-registered enterprises (Table 1). After transcription, within each of the four main themes in the questionnaire, we adopted an open coding approach to identify common issues and responses.

Following the interviews, we categorised producers into either ‘farm’ or ‘factory’ producers. In most cases this distinction was clear with some artisanal producers making small volumes on farm or orchard using traditional approaches, while larger producers were high volume, factory-based products. The size distinction between farm and factory producers in cider is

reinforced by the excise duty regulations: below production volumes of 7,000 litres pa no duty is payable and cider producers making smaller volumes than this are not required to register with HMRC. However, when producing more than 7,000 litres excise duty is payable on all production volume (including the first 7000 litres) and larger producers are required to register with HMRC and keep detailed records on production volumes etc.[14]. The implication is, as one producer commented:

"If you're a craft maker you've got the tax ceiling of 7,000 litres, which is great. That's a threshold, below that you're not paying tax. … After 7,000 litres you pay tax on everything. So, the shorthand of that means is that to make it then work you have to get to about 20,000 litres".

The economic implications of the excise regulations create a natural division between those 'farm' producers who chose to remain below the excise limit and therefore pay no duty, and medium and larger 'factory' firms which invest in significantly scaling production beyond 20,000 litres pa.

5. Empirical results

5.1 Perceived value of the GI to producers

As mentioned previously we distinguish between farm and factory producers based on scale. Farm producers are artisanal and small scale, medium and large producers are generic and standardised. Both farm and factory producers consistently recognised three perceived benefits of the GI – the attribution of authenticity, branding and traceability. The GI is used as a marketing tool by both farm and factory producers because it creates a sense of authenticity, protects against product imitation and protects the name of a product. A farm producer commented:

> *"Here's two real reasons to have a PGI – one is to protect against people from outside the region calling their product, say Herefordshire Cider. The second reason is a marketing reason, (something which we've just talked about). They are looking at, say, the cider makers*

[14] https://www.gov.uk/government/publications/excise-notice-162-cider-production/excise-notice-162-cider-production

in Northern Spain, the Protected Designation of Origin (PDO) says pure juice and also you've got to use these 12 indigenous apple varieties. That's a one-to-one marketing tool". [INT 5]

Meeting the requirements of the PGI certification also maintains consistency across the supply chain from grower to producer ensuring traceability. For example, one factory producer revealed:

> *"I think it's helped us to ensure that people haven't been able to copycat really what we've done by calling it Herefordshire even though they may have bought Herefordshire apples, but they couldn't necessarily call it Herefordshire cider".* [INT 7]

Also, on traceability, another farm producer stated:

> *"So, people recognise when they come here what we're doing and they see what we're doing, we're very open and transparent, our website you'll have seen is very open and transparent in terms of describing what we do and how we do it. I think people respond to that".* [INT 4]

These comments reflect the early findings of Ilbery and Kneafsey (2000) from their survey of applicant groups. They comment: 'although designed to both 'protect' and 'promote' products … it is the former that has encouraged the first wave of applications' Ilbery and Kneafsey (2000, p. 324).

There were also areas of disagreement between the farm and factory view. For farm producers, their key focus was on the traditional way of cider making with its associations of local production and traceability. Such openness and transparency is perceived as an added advantage in the marketing of the cider. For some farm producers this also translated into concerns about local environmental sustainability, a concern which was less evident among factory producers. One farm producer stated:

> *"Part of that I'd like to think is about PGI, but I think a lot more of it is about the back story of how the product is produced, where it is produced, as in here, who's producing it, our approach to production, which is very much about working with nature. We don't use pesticide sprays, the orchards here haven't been sprayed for 100 years, literally since the 1920s".* [INT 4]

Other factory producers revealed:

"I mean when we, we did it [Registered the PGI] because it just seemed like a really nice thing to do, the fact that it was, we liked the ethos and the fact that everything is becoming sourced locally and we're trying to, so it seems like a, such a perfect thing to do". [INT 9]

And:

"Yes, and I know you're wanting the sort of PGI, but the interesting thing is these people are coming without that, they're coming just because we're a family business that make cider traditionally in a very rural location". [INT11]

Another area in which contrasting views emerged between farm and factory producers was their willingness to adapt to changing consumer tastes. This was reflected in comments about pricing as well as views on production values and the trend towards flavoured ciders. One factory producer commented:

"We've always been a premium product producer, we've always pitched it high. We're known for that. We are aiming to produce wine quality, Cider and Perry top end, so we're using stainless steel vats. We're not fermenting in plastic or skanky old oak barrels". [INT 4]

Consumers are seen as price sensitive by both farm and factory producers, with some farm producers suggesting that competition means that they are unable to reflect their more expensive production methods in higher prices. In terms of broader market trends and production values another farm producer commented:

"Well, if you go into a supermarket, and you look at any of the big producers… the trend for fruit flavoured ciders, which I hate, berry fruits and strawberry cider and all that malarkey are an abomination, they're aberrations, adulterations even. That's what's driving the market at the moment and those products are full of sugar, they're cheap, they're using minimum juice content". [INT 5]

"So, if you're familiar with Excise Duty Notice 162, if you're not, have a look at it, defines the legal definition of cider and Perry and it allows producers to use only 35 percent juice. So, the big guys, the commercial guys are only putting 35 percent juice

in their products because it's cheaper and the rest is water, corn syrup, molasses, artificial sugars etc. ... We're putting our product to market with as near as dammit 100 percent raw juice fermented with a wild yeast, nothing added, nothing taken away. It's a very different product". [INT 4]

Producers' recognition that farm and factory producers are addressing different market segments allows elements of co-operation between large and small-scale producers. One larger, factory producer reflected that:

> *"...so yeah and we give advice too, so we belong to the National Association of Cider Makers and then we have affiliated smaller groups of cider makers, they belong to the affiliated association, so we have Three Counties, the South West, we have Irish, we have Scottish and we share, transfer knowledge to them so that when there's changes in legislation or PGI or labelling ... we transfer knowledge that way and then we'll do testing for smaller cider makers as well, so if they make product and we can do the testing for them, we'll charge them, but, so we support them, so they drop off their, yeah they drop off their samples and we can give them the analysis of what they've done to help them and if they've got a problem they just ring up…, what do I do, what's causing my cider to go green type of thing".* [INT 10]

Both factory and some farm producers sell in both UK and export markets. Where firms were exporting both groups agreed that the PGI supports export market sales. Some producers thought this was due to a recognition of the PGI certification; other producers thought the key selling point was that international buyers see Cider as a British product with its brand authenticity reinforced by the PGI. There was also a general consensus among farm and factor producers about the value of the GI in supporting aspects of the local economy. For example, one factory producer explained:

> *"Yeah, I think it just helps maintain the rural economy doesn't it? If there's more products have these types of GI on then you use your more products you're supporting, local businesses, local farmers, and that's what we I think we need to do more of".* [INT 6]

Another factory producer commented along similar lines:

> *"…have a cup of tea, you could have a look round and you could buy our products. So, tourism is really important in your, in the rural area because ... so it does bring*

people here and then it does support other businesses like bed and breakfasts, hotels, local towns". [INT 10]

5.2 Factors limiting the perceived value of the GI

Producers highlighted a number of factors which limit the value and relevance of the GI to their businesses. The nature of the GI itself was highlighted by some (particularly farm) producers while others emphasised issues related to enforcement and public awareness of the GI standards. In terms of the drafting of the GI itself, farm and factory producers' views varied. First, as specified in the EU legislation the PGI permits a number of production techniques which are more typical of larger commercial producers. These include: juice concentration (typically by boiling); dilution; filtration, fining, or centrifuging to achieve clarity; and chaptalisation — the addition of sugar syrup to allow higher alcohol levels to be reached or adjust sweetness before bottling. One farm producer explained:

> *"virtually all of these practices became common place only in the latter half of the 20th century. There is nothing of tradition in them".* [INT 4]

and went on to comment that these permissions might be applicable if they:

> *"focussed on some aspects of quality, culture and the tradition of Herefordshire cider, but they do not. Given this set of criteria what value has the word Herefordshire and the PGI logo to the consumer? I'd say little to none. As a producer of true Herefordshire cider, we cannot make a legitimate connection with this PGI and indeed we feel it might damage our brand if we did so"*[15]. [INT 4]

Second, concerns related to the specific types of cider apples which the PGI requires producers to use. One factory producer commented on the restriction in the PGI that only bittersweet rather than dessert apples can be used:

> *"So that's actually a downside, that's something that we think is a negative for the PGI, because we're still making a cider, because we chose to use a dessert apple as opposed to a bittersweet apple".* [INT 9]

Another farm producer commented similarly:

[15] Private communication with the authors 10th April 2019.

> *"It's* [the PGI] *is limiting because it says the cider must be based on bittersweet cider apples and that's how [Company X] make cider".* [INT 5]

While bittersweet apples are the traditional input for Cider across the Three Counties the PGI requirement that *only* bittersweet apples are used was seen by farm producers and some factory producers as overly restrictive and constraining potential innovation. The motivation for including this strict stipulation in the original PGI specification is unclear but probably reflects traditional practices rather than any specific attempt to restrict future innovation.

Third, producers also commented on the juice content requirements included in the GI. Again, a farm producer explained that:

> *"So, if you know anything about cider, for someone like me who makes just from apple juice, someone … uses a minimum of 35 percent apple juice, the rest is water and sugar. The PGI for cider in France – there's three in France, I'm aware of one in Spain, they all specify 100 percent pure juice".* [INT 5]

These issues led one farm producer to comment:

> *"So, there is very little value at all to that PGI and that Three Counties Cider. It could have been valuable if written properly, but it's not valuable".* [INT 2]

Beyond the wording of the GI itself both farm and factory producers agree that the GI needs to be enforced properly. The PGI certification is audited by Trading Standards and some producers interviewed were concerned that there is not sufficient policing of offenders who illegally use the labelling covered by the PGI. More concerns were raised due to the lack of police interest because there were no serious health implications of illegally using the PGI label. One factory producer stated:

> *"I think the biggest challenge for the UK is actually, it's enforcing it … is there are resource within local government to be carrying on … continuing to operate such a scheme and then to have the necessary approvals and ongoing approval of such a scheme. That's the biggest problem because at the moment, our particular scheme is maintained by Herefordshire Trading Standards, but the resources within a local*

government, particularly Trading Standards has been reduced so significantly that it's very difficult to have the time to be doing anything". [INT 6]

Another factory producer commented on enforcement:

> *"… I'm pleased to have it [the PGI]". "I feel annoyed that we go to the trouble of PGI and all the people put all the paperwork in to do the PGI, but yet they don't police other people to stop them abusing it and using the Herefordshire name against cider without having it. So that's where I get annoyed, because that's not being policed properly – the abuse. Because you think, if organic wasn't policed properly and someone had to have organic food because of an allergen or something, that could be horrendous".* [INT 6]

For many producers —both farm and factory —another factor limiting the value of the GI was the low level of understanding of the PGI mark among UK consumers, reflecting longstanding concerns about public awareness of GI labelling in the UK (Ilbery and Kneafsey, 2000). For some producers this suggested a need for more consumer education, with one factory producer stating:

> *"There isn't that education out there. People will buy Feta cheese they won't necessarily know if it has the PDO. Basically, it's a lack of awareness, a lack of education as to what the protected scheme is".* [INT 7]

This view by producers is supported by other recent evidence which suggested that only around 14.4 per cent of UK consumers recognise the EU PGI label, a level lower than that in any other six countries in the study except Norway (Hartmann et al. 2019, p. 69)[16]. Moreover, only 10.3 per cent of UK consumers reported taking the EU PGI label into account when doing their shopping (Hartmann et al. 2019, p. 70). This is a marked contrast to the Red Tractor label which is recognised by 75.9 per cent of UK consumers (Hartmann et al. 2019, p. 121).

Promoting consumer recognition of GI labelling was seen by producers as one area in which government support could play a useful role. One factory producer explained:

> *"I think with something like this it has to come from the government. So, it has to come from who is going to be maintaining the scheme. Who is gonna start if off in effect,*

[16] It is notable also that levels of UK consumer recognition of the EU organic label were the lowest of the seven study countries (16.4 per cent).

in the UK? What is it going involve? And it's an ideal opportunity for education to come around as a result of that. So, I think it has to come from Central Government which I assume it will be DEFRA. You're going to have to have some form of education, some form of communication to the public to say what the scheme is and what the benefits of it are. And then I think if that message getting known then I think what you will find is there'd be more people that want to use those particular products and also, then, potentially start new ones as well". [INT 6]

There was also an awareness among some producers that the PGI certification overlapped — and perhaps competed —with other branding such as the Red Tractor, "Organic" labelling or even narrative labelling such as "traditionally made Cider". One farm producer commented:

> *"At the moment we're quite involved with the Slow Food movement and things like that which is more about quality than the GI but there are bits where they overlap".* [INT 2]

Finally, for farm producers manufacturing low volumes, the inspection and compliance costs for maintaining the GI were viewed as significant while the benefits were often hard to assess or identify. One farm producer explained:

> *"Well what I know is that early on we looked at getting that … we did quite a lot of form filling and I think it cost quite a bit of money … Subsequently, there doesn't seem to be a very significant benefit in terms of being PGI because when the cider goes out into the marketplace, we're really on an uneven playing field because we have to pitch our price according to the big producers and we wouldn't get any extra money by being PGI".* [INT11]

For others, more practical barriers were evident. One farm producer commented: *"there is no space [on my bottle] for an additional label".* [INT 3] This particular producer explained there were other forms of marketing their products and PGI certification was not necessary.

6. Discussion and conclusions

The UK cider market has grown significantly over the last decade as has the number of (largely small) craft cider producers, reflecting similar growth in the market for craft beer (Wallace, 2019). The award of the Three Counties PGI (1996) pre-dates much of the resurgence of the interest in craft cider and the growth in number of artisanal producers. In the context of broader

debates about the importance of food heritage, how effectively has the Three Counties PGI supported artisanal producers and contributed to sustained food heritage? Or, has the GI been better at supporting larger-scale, and perhaps economically more significant, producers? What lessons does this suggest for the UK and other countries as they consider the potential role of GIs in supporting either food heritage and production? We explored these questions through the lens of the alternative logics of the 'factory' and 'farm' worlds of production (Salais and Storper, 1992; Storper and Salais, 1997).

The background to the GI itself is also important in considering these questions. The original application for the Three Counties GI - like a number of early GI applications in the UK – was compiled in 1995 by a new consortium led by larger producers (Ilbery and Kneafsey, 2000). This undoubtably influenced the formulation of the GI itself which explicitly permits the use of a range of non-traditional production methods for the chemical treatment of fruit as well as sweetening and clarifying the final product. Large-scale, factory producers may adopt these techniques to produce a standardised product year-on-year at reasonable cost, techniques which would not be used by artisanal producers seeking a more individual and characterful product. The permissive nature of the Three Counties GI to the adoption of industrial production techniques is not unique. As Blundel and Treagar (2006, p. 735) comment in relation to French cheese GIs: 'many of the AOC production systems now involve industrial logics of production and governance … such systems no more represent a pure form of artisanship'.

For some artisanal cider producers that we interviewed the permissiveness of the Three Counties GI effectively undermines any link to traditional products or production values. Other producers had a more cynical view suggesting that the permissiveness of the PGI allows factory made products to benefit from being linked to local tradition, with any associated marketing gains, without adhering to traditional production techniques. This was seen as having a potentially negative effect by undermining consumer perceptions of the values and character associated with traditional ciders. Farm producers with this view eschew the use of the GI in favour of other labelling approaches which they argued more effectively suggest the artisanal nature of their products. For other farm-based producers not using the GI more cost-based factors were highlighted, with some seeing the costs of maintaining certification and compliance seen as out-weighing the marketing advantages. This leads to a relatively low level of producers – around 15 per cent – being registered as GI compliant. And, where larger

producers are registered, only a small proportion of their product range and output typically complies with the GI (Bricknell, 2015).

These issues illustrate the tensions evident between standards which support artisanal production and food heritage and larger-scale production and the importance of the specific wording and provisions of GIs themselves. The Three Counties GI is not unique in this latter respect. During interviews relating to the Traditional Cumberland Sausage GI we were also told that a wording which 'only' allows certain spices to be added has effectively made the GI inapplicable for all previous users. In other contexts – the Cornish Pasty, Melton Mowbray Pork Pie – producer organisations seem to have found a wording which is general enough to allow some variation in producer recipes but specific enough to provide product protection and generate more significant economic benefits for eligible producers (Rippon, 2013). More broadly these differing experiences suggest the difficulties inherent in codifying the heritage properties or character of specific foods in legal instruments such as GIs. Too specific and the codified form of a product specification can make the GI of little or no practical value; too broad or permissive and the GI may provide little protection for traditional artisanal production methods.

Beyond the specification of the Three Counties Cider GI itself, there was a shared feeling among both farm and factory producers we interviewed that GI labelling is poorly understood by UK consumers. This is reflected in recent comparative studies which suggest both that UK consumers are less likely to recognise and value GI labelling than those in other European countries and that GI label recognition is significantly lower than that of other quality labelling such as the Red Tractor logo (Hartmann et al. 2019). For some producers selling only in the UK market this lack of consumer awareness further reduces the benefit-cost of GI labelling. Those producers which were exporting, however, were more positive about the potential advantages.

The lack of consumer recognition of GI labelling, together with individual producers' reservations about the specific value of the cost-benefit of the Three Counties Cider GI, both reduce the overall economic significance of the GI although, as recognised in the quotes reported earlier, it may be important for individual producers. Increasing the impact of the

Three Counties Cider GI is likely to require action on both the producer and consumer side. Given that the market for Three Counties cider is largely domestic, promoting increased awareness among UK consumers of GI labelling will be critical. Making the GI more attractive to producers is also important, however, with the potential to consider reducing compliance costs and/or re-drafting the GI itself.

More generally, the introduction of UK-based 'Protected Food Names' (PFN)[17] scheme post-Brexit scheme creates a policy opportunity to reshape the food geography in the UK based on the values of heritage and authenticity associated with GIs (Parrott et al. 2002). If the scheme is to be effective, the example of the Three Counties Cider GI suggests the importance of the wording of any new PFNs and their consistency with the production approaches adopted by artisanal producers. Without this producer take-up is likely to be low. Operational issues will also be important as smaller Cider producers also stressed the off-putting costs of registration and compliance. For consumers, the key issues will be around establishing awareness and confidence in the PFN labelling. Maximising the economic development potential of PFNs will also require joined-up policy making at both local and national level, linking food and tourism policies (Bramley and Bienabe, 2012).

Our analysis of the Three Counties GI adds to the very limited number of studies of UK GIs although the international literature is much more extensive (Dias and Mendes, 2018). We focus attention on the tensions implicit in the codification of the characteristics and production methods of heritage food products and the consequent impact (or lack of impact) of the GI. Future studies could usefully include more case study products, and explore further the tensions in the heritagisation of food products between protecting artisanal production and generating economic value. In policy terms the advent of the national PFN scheme in the UK does create new opportunities to increase the number of GIs and improve the adaptability and accessibility of the scheme. Whether any such expansion aims to protect food heritage or emphasises value

[17] The new rule which is effective from the 1st of January 2021 states that the UK will set up its own geographical indications scheme (Protected Food Names) in accordance with the WTO regulations. All existing foods registered under the EU GI scheme will remain protected in the UK GI schemes. New applications will be filed with the DEFRA (DEFRA, 2019) .

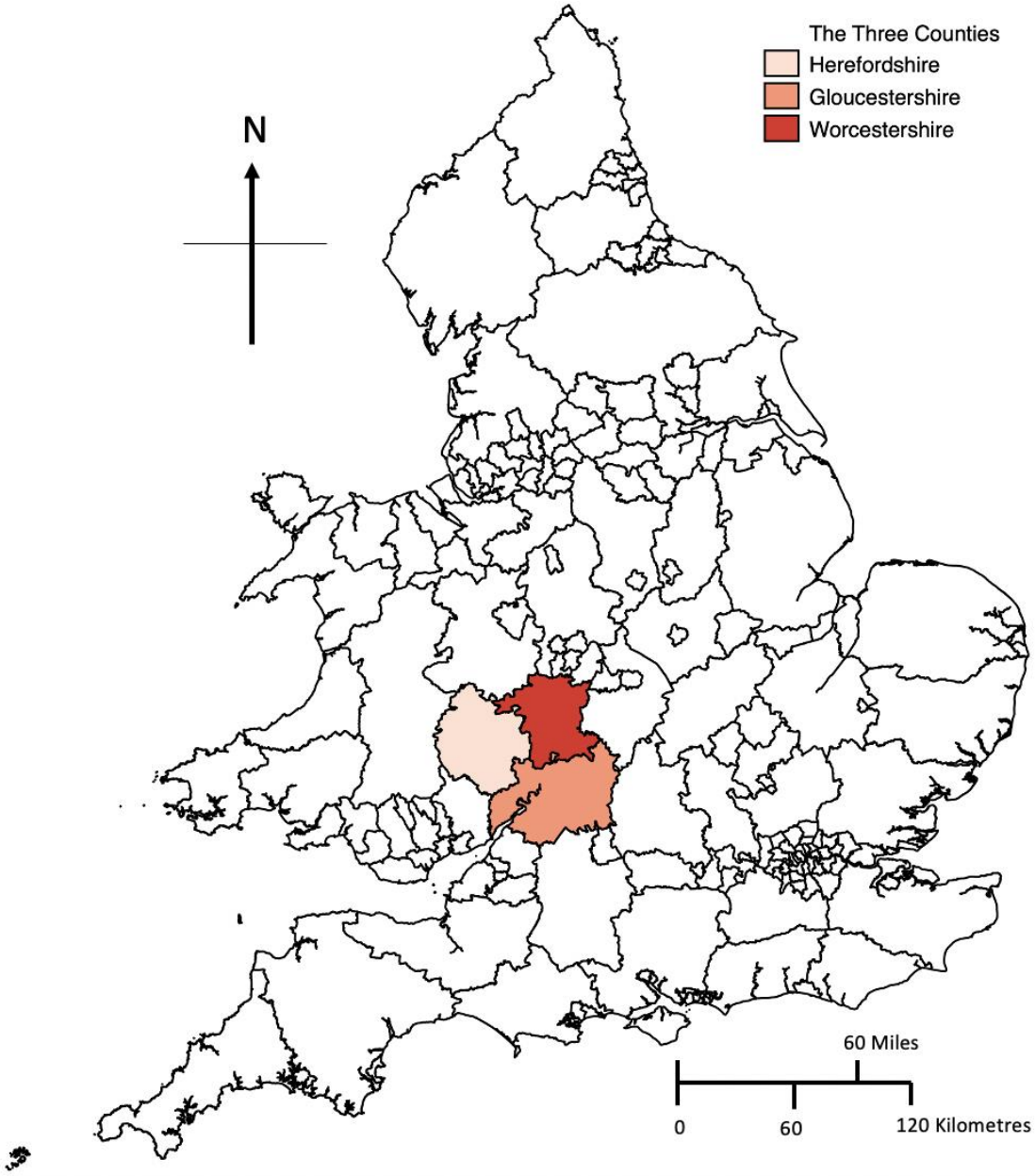
creation and how actively government will be able or willing to support such developments given other pressures from COVID-19 etc. remains to be seen.

Table 1: Interviewed producers of Cider and Perry in the Three Counties

Interview reference	Location	Size	GI	Production view
INT 1	Herefordshire	Small	No	Farm
INT 2	Worcestershire	Small	No	Farm
INT 3	Herefordshire	Medium	No	Factory
INT 4	Herefordshire	Small	Yes	Farm
INT 5	Herefordshire	Small	No	Farm
INT 6	Herefordshire	Large	Yes	Factory
INT 7	Worcestershire	Large	Yes	Factory
INT 8	Gloucestershire	Small	No	Farm
INT 9	Worcestershire	Medium	Yes	Factory
INT 10	Herefordshire	Large	Yes	Factory
INT 11	Gloucestershire	Medium	No	Factory

Note: We regard small producers as those making less than 7,000 litres per annum and therefore below the excise limit specified by HMRC Excise Notice 162 (see https://www.gov.uk/government/publications/excise-notice-162-cider-production/excise-notice-162-cider-production, paragraph 3.10). Medium producers are those producing less than 200,000 litres pa; large producers more than 200,000 litres pa. Source: Interviews.

Figure 1: The Three Counties: Herefordshire, Gloucestershire and Worcestershire.



Source: Authors

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