

Craft Cider Sub-Sector: Economic Feasibility Assessment of Active Tax and Regulatory/Compliance Policies Intervention

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Summary: Market structure and overview

The Irish cider manufacturing sector is relatively large in size (ranked 5th in Europe by volume of production in 2013) and heavily concentrated around a limited number of large scale industrial producers. Based on data from Cider Ireland and The Apple Growers Association of Ireland (AGAI)², the industry's sub-sector of craft cider makers accounts for approximately 1 million litres of production. Based on Revenue figures, just under 1.6% of the Irish market's supply of cider (including imports) and just under 1.85% of the total production within the domestic sector, based on 2014 figures can be assigned to smaller craft producers of cider.³⁴

Total domestic supply of cider in Ireland, therefore, is accounted for by:

- Large domestic and multinational producers manufacturing cider in Ireland holding 85% share of the market supply
- Importers holding 13.4% share of the market; and
- Small domestic producers with just around 1.6% share of the market.

¹ This research was funded by Cider Ireland. The opinion expressed hereinafter is that of the author and not of Cider Ireland. All errors and omissions are author own.

² Hereinafter, Apples Growers Association of Ireland (AGAI) source references *Apple Growers Taxation Proposals: Budget 2016* (version as of 07/07/2015)

³ This estimate is based on consideration of excise revenue by band, with higher alcohol content cider-related revenues assumed to be arising from smaller craft producers, whose output generally carries higher average alcohol content by volume. This implies that all three sources of estimates – the estimate supplied by Cider Ireland, as well as two estimates based on two different figures from the Revenue converge, roughly on 1.6 percent share of the market accruing to craft cider manufacturers.

⁴ By discounting the fact not all cider covered by higher excise bands relates to craft cider production, the estimates presented below error on the side of caution in terms of the potential impact of excise duty changes on Exchequer revenues.

Based on data from Cider Ireland, currently, there are approximately 12-15 craft cider makers operating in Ireland, producing, on average between 67,000 and 83,000 litres of cider per annum. At least seven of the craft cider producers are also commercial producers of apples. Virtually all producers of craft cider in Ireland have started their operations in the last 5 years.

The economic environment of cider production in Ireland currently dis-favours small / craft producers in a number of policy-related and market-related areas. These include:

- Adverse markets trends (price competition and declining demand, as detailed in section 1 below) relative to market potential;
- Differential cost structures in the sector (see section 2 below); and
- Unfavourable taxation regime that de facto levies a higher excise tax (relating to higher alcohol content by volume in craft cider) and amplifies compliance costs burdens on craft producers (relating to naturally lower efficiencies in manufacturing and supply chain management of craft cider supply) as discussed in sections 2 and 3 below.

However, the craft cider production sub-sector holds significant untapped potential for job creation and new export generation, as well as import-substitution, as discussed in sections 1-3 and summarised in section 4. In addition, craft cider manufacturing in Ireland offers significant positive economic externalities or spillovers to other adjoining or related sub-sectors that are currently not being priced in the market due to either tax or regulatory treatment of craft cider.

In line with this, the Government should consider deploying a number of measures aimed at levelling the playing field for craft cider manufacturers in taxation terms and supporting the sub-sector with a range of smaller targeted policy initiatives. The first stage of this process should involve a small adjustment in the excise taxation rates system to reduce the number of excise tax bands based on alcohol content by volume from four to three, as follows:

- Band 1: Cider < 2.8% vol still & sparkling at EUR47.23 per hectolitre;
- Band 2: Cider >2.8% and <=8.5% vol still & sparkling at EUR94.46 per hectolitre.
- Band 3: Cider >8.5% vol still & sparkling at EUR309.84 (still) EUR619.70 (sparkling) per hectolitre.

As discussed in section 4, such a measure will likely be revenue-neutral or even revenue-additive within the first year of implementation and can be expected to be revenue-additive within the second year of operation. The fiscal implications of the proposed support measures are discussed further in section 4.

Section 1: Market Trends

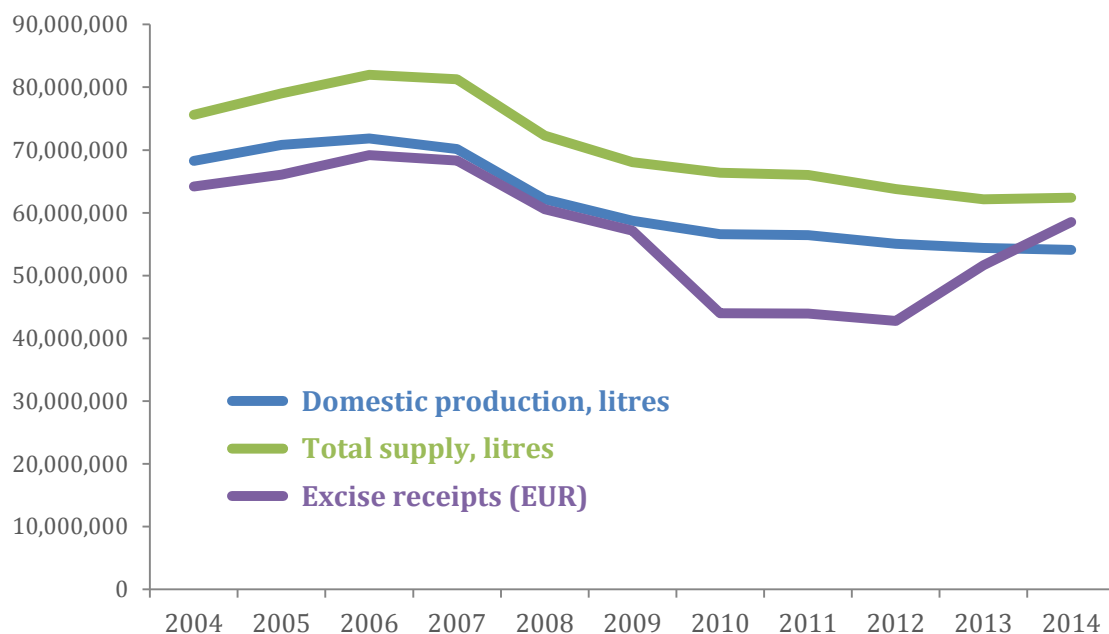
As highlighted in Chart 1, domestic cider production in Ireland peaked in 2006 at just under 71.84 million litres and has experienced a significant decline since, dropping to the estimated cyclical low of 54.07 million litres in 2014. This represents a decline of 24.7% on peak and is in line with similar (25%) decline in peak-to-2014 imports.

In simple terms, the above trends are consistent with the overall decline in demand for cider in Ireland. This is associated with:

- the ongoing trend toward consumer purchases of cheaper alcohol alternatives;
- reduced consumption of alcohol in on licensed premises, as well as
- preferences shifting toward wine.

Much of this decline is attributable to the economic crisis and the resulting price sensitivity of consumers to purchasing. Furthermore, some of the impact can be attributed to substitution purchases of all alcoholic beverages (including cider) in Northern Ireland.

Chart 1. Cider Supply and Associated Excise Revenues



Source: Revenue Commissioners⁵

⁵ <http://www.revenue.ie/en/about/statistics/excise-volumes-commodity.pdf>

For large scale industrial producers of cider, an additional contributor to the decline production is the export markets re-balancing. As noted by industry research (AICV, 2014)⁶, demand for cider within Europe has been shifting in recent years with the traditional markets of France and Spain showing a substantial drop in cider demand of 2.8-3% over the period 2008-2013 and new centres of growth in demand emerging in less traditional markets, such as the Netherlands (+72.7%), Russia (+59.8%), Italy (+49.5%), Romania (+42.1%) and Turkey (+9.9%). In the traditional export market for Ireland – the UK – demand for cider rose over the period 2008-2013 by 2.7%, but there was also an ongoing process of import substitution with increasing domestic production of both industrial output and craft cider output displacing imports.

Compared to other advanced economies, the Irish drinks sector, while large in scale, remains relatively poorly diversified, across the range of products offers and producers (by size and product types) especially in comparison with other economies, such as the UK and the rest of Europe. This problem is more pronounced in the cider sub-sector when compared to other sub-sectors, such as beer and whiskey. For example, independent, small (craft) producers of beer in Ireland currently target close to 7-8% market share, consistent with that to be found in the U.S. within the next 3-5 years (2018-2020), with ca 2-3% market share accruing to beer exports covered by craft breweries. Independent whiskey distillers currently account for an increasing, albeit still small, share of total market production in Ireland. However, in the comparable quality product category of premium whiskey, independent distillers in Ireland hold substantial market share already and, in my opinion, are likely to dominate the market within the current cycle of product maturity (10 years). In both sectors independent production is growing rapidly and improved product diversity is now positively contributing to Irish drink brands' ability to market Ireland as a source of high quality, high value-added output.

In the cider sub-sector, the market share held by craft / independent producers is currently lower, and export share is virtually nil.

A caveat to these figures is that it is generally difficult to judge the market shares held by independent craft producers of both beer and whiskey. For example, industry sources from 2014 state that by volume of domestic sales, craft brewers held a 1.5-2 percent share of the overall Irish market.⁷ In the U.S. over the same time period, craft brewers were holding 7.8 percent market share by volume and 14.3 percent share by value. However, in the Irish case, the numbers reported

⁶ AICV, 2014: *European Cider Trends 2014*, European Cider and Fruit Wine Association.

⁷ <http://www.irishtimes.com/business/agribusiness-and-food/irish-craft-beer-market-on-course-for-sales-of-more-than-15m-1.1919087>

appear to exclude small, but still important export sales. In contrast, a more recent statement from the industry suggests that the Irish craft breweries' share of domestic market was closer to 1.2 percent in 2014 and the expectation is that it will reach 2 percent in 2015 and 3.3 percent in 2016.⁸ The report identifies approximately a 25 percent share of craft breweries' output accruing to exports, which would push the 2015 expected market share to around 2.5 percent. An added complication is that these figures appear to be gross of imported substitutes, which once again pushes up the effective figure for the domestic production share, as opposed to the domestic sales share.⁹

Falling demand and a weak product offering base in Ireland – as, in part, recognised in the sector-own data¹⁰ - stand contrasted by the global trends that favour cider as the key growth sub-sector of alcoholic beverages sector.

Globally consumption of cider has risen by an estimated 50 percent between 2004 and 2013, based on data from Rabobank¹¹. In Ireland, production of cider has fallen 20.8 percent over the same period. The rates of growth in cider consumption are even higher in the U.S. Per Nielsen¹², over June 2014, - June 2015 U.S. consumption of cider was up 43.9% in value terms and 43.2% in volume terms with cider holding 0.9% market share of all drinks consumed. According to other sources, "American hard cider production more than tripled from 2011 to 2013, from 9.4 million gallons to 32 million gallons".¹³

Across Eastern Europe (traditionally a weak market for cider), demand and production of cider has been growing at close to doubling y/y since 2011.¹⁴

Using as a basis global cider growth trends and craft beer market shares, Table 1 shows the potential output evolution of the Irish cider sector and Irish craft cider sub-sector under a range of scenarios, covering the period 2015-2020. The scenarios anchor future production to past trends and to global growth rates.

⁸ <http://www.irishtimes.com/business/agribusiness-and-food/craft-beer-makers-raise-a-glass-as-production-levels-soar-1.2329766>

⁹ To further highlight the problem with reported numbers, consider ICBI report from August 2014:

http://www.icbi.ie/uploads/4/1/0/7/41075859/economic_impact_craft_brewing_in_ireland.pdf

¹⁰ <http://www.drinksindustryireland.ie/whither-cider/>

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https://www.rabobank.com/en/press/search/2013/20130708_Rabobank_Report_Cider_consumption_continues_to_soar_super-premium_and_value_brands_to_prosper.html

¹² <http://www.nielsen.com/us/en/insights/news/2015/tapped-in-craft-and-local-are-powerful-trends-in-the-beer-aisle.html>

¹³ See <http://time.com/82620/fastest-growing-alcoholic-beverage-category-its-not-craft-beer/> and <http://time.com/13533/not-quite-beer/>

¹⁴ <http://www.bloomberg.com/news/articles/2015-06-07/craft-ciders-are-sweeping-across-beer-crazed-central-europe>

The scenarios and underlying assumptions are described in the table. Chart 2 illustrates production trends in the domestic sector.

Table 1. Cider Production and Within Sector Distribution in Ireland

	Scenario 1, Domestic output, 2.07% pa growth	Scenario 2, Domestic output, 3.75% pa growth	Scenario 1.1 Craft output	Scenario 1.2 Craft output	Scenario 2.1 Craft output	Scenario 2.2 Craft output
2004	68,276,626					
2005	70,795,146					
2006	71,835,871					
2007	70,169,343					
2008	62,121,901					
2009	58,726,795					
2010	56,609,893		330,041		330,041	
2011	56,430,161		439,546		439,546	
2012	55,077,938		555,811		555,811	
2013	54,376,869		748,432		748,432	
2014	54,067,978		1,011,055		1,011,055	
2015	55,187,185	56,095,527	1,066,704		1,084,261	
2016	56,329,560	58,199,109	1,216,877	1,248,900	1,257,264	1,290,350
2017	57,495,582	60,381,576	1,372,810	1,470,868	1,448,232	1,544,698
2018	58,685,740	62,645,885	1,501,315	1,834,940	1,602,624	1,958,763
2019	59,900,535	64,995,106	1,600,498	2,213,455	1,736,622	2,401,711
2020	61,140,476	67,432,422	1,737,903	2,780,645	1,916,750	3,066,800
Assumptions Summary:						
Scenario 1: Irish cider production growing at 1/2 global rate recorded between 2004 and 2014 (2.07% pa)						
1.1	Craft Cider market share rises from 1.7% current to 2.5% in 2020 (1/3 the rate of U.S. craft beers in the domestic market)					
1.2	Craft Cider market share rises from 1.7% current to 4% in 2020 (target for Irish craft beer market share)					
Scenario 2: Irish cider production growing at 3/4 global rate recorded between 2004 and 2014 (3.75% pa)						
2.1	Craft Cider market share rises from 1.7% current to 2.5% in 2020					
2.2	Craft Cider market share rises from 1.7% current to 4% in 2020					
Excise Tax Revenue rate is assumed at 2014 reported levels of EUR 0.937985888 per litre						
Full Time Employment (FTE) average earnings at EUR30,000 pa with payroll-related net tax rate of 30%, covering employer and employee contributions						

Source: Author own calculations based on data from Revenue Commissioners, Cider Ireland, ABFI and AICV.

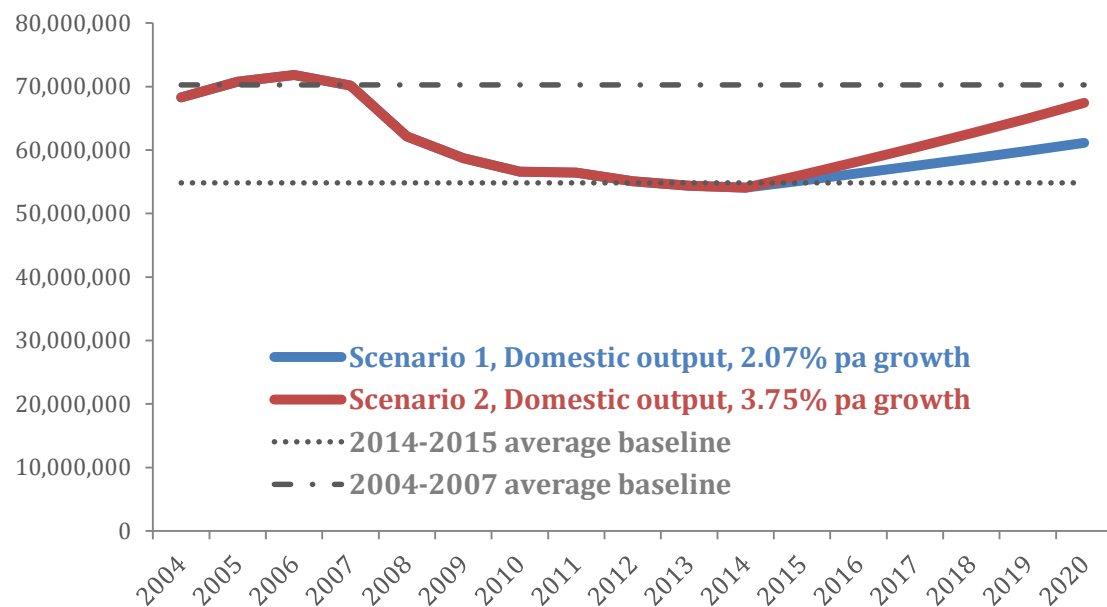
Note: 2015 production is estimated based on data from Cider Ireland, 2016-2018 figures are forecasts

Overall, Irish cider producers, and specifically Irish craft cider producers are currently operating in a market environment that is not consistent with global trends and opportunities. Craft cider output in Ireland today is out of line with craft beer production and independent whiskey distilling in terms of the domestic market, and is not capturing significant export opportunities emerging in global markets for cider.

As shown in Table 1, 2020 potential output for domestic cider production under international growth trends is estimated to be between 61,140,476 and 67,432,422 litres depending on assumed rate of growth in relation to the global 2004-2014 average rate of expansion of 4.15 percent per annum. The resulting 2020 range of output falls within historical normal output for Ireland (between peak and current averages), as in Chart 2.

In addition, Table 1 shows the estimated range of uplift in production of craft cider in Ireland. This range covers four scenarios: two sub-scenarios per each overall sector production growth scenario. Estimated 2020 potential output in the craft cider sub-sector in Ireland ranges between 1,737,903 litres in the lowest growth scenario 1.1 and 3,066,800 litres in the more benign growth environment under scenario 2.2.

Chart 2. Estimated Production Trend, Domestically Produced Cider, litres



Source: Author own calculations based on data from Revenue Commissioners, Cider Ireland, ABFI and AICV.

Note: 2015 production is estimated based on data from Cider Ireland, 2016-2018 figures are forecasts

All scenarios offer substantial room for craft cider output expansion relative to 2015 projected level of output expected to average around 1,075,500 litres across Scenarios 1 and 2.

Section 2: Cost and Output Structures

While operating in an environment of falling domestic demand, craft cider makers are facing significant cost differentials compared to the industrial cider producers that are reflective of the craft nature of production processes and the quality of the final product.

Irish industrial producers of cider use mass manufacturing methods and technologies that rely on incorporating extensive use of water, sweeteners and flavour additives to their cider, resulting in final product containing approximately only 30% apple-derived content (Cider Ireland and AGAI).

In contrast, craft cider producers deliver a final product with around 85% apple-derived content, with minimal use of sweeteners and other additives. In addition to the quality differential, the differences in production process also result in a higher average alcohol content in craft cider, in line with other products in the drinks sector, including beer and wine (in both craft beer manufacturing and production of artisan and smaller varieties of wine, the alcohol content in the final product is, on average, higher than in blended and mass produced products, while the sugar content of smaller wine brands shows higher volatility by year and production barrel).

The differences in craft as opposed to mass manufacturing technologies imply significant cost differences that can be only partially offset in the final price differentials. The reason for limited capacity of craft cider manufacturers to offset higher cost through higher pricing of their product is that the Irish domestic consumption market for all alcoholic beverages is currently exposed to several adverse pricing forces:

- 1) Due to the legacy of the economic crisis, Irish consumers are currently more price sensitive in their demand for drinks and are more willing to trade both down the quality chain (from craft cider to mass produced cider) and across the drinks range (from cider to beer and cheap wine);
- 2) Price sensitivity of Irish demand for alcoholic beverages is further enhanced by the availability of retail alternatives in a number of regions located along the border with Northern Ireland;

- 3) Price sensitivity is also enhanced by overall trends in the reduction of drink demand from on-license premises and increasing trend in some (primarily urban) location for BYOD-type food establishments; and
- 4) Increased rates of taxation of alcohol in Ireland over recent years.

Compounding the matter of price sensitivity of demand, as shown in section 3 below, these differences induce higher rates of excise taxation for craft cider manufacturers that are linked to the higher alcohol content of their product and act as a de facto disincentive to supply a higher quality product to consumers in Irish cider markets. Notably, this differentiation in taxation rates does not hold for craft beer manufacturers who enjoy a substantial excise duty reduction on their products.

In addition, craft cider manufacturing implies higher costs associated with labour and other inputs. These costs are reflected in higher economic value added of craft cider manufacturing compared to mass manufacturing, but are not fully offset by higher prices for craft products. Unfortunately, the higher economic value of the craft cider manufacturing is not reflected in excise taxation system and policy supports afforded to craft cider manufacturers.

Per Cider Ireland and AGAI, employment levels in industrial manufacturing of cider are low primarily due to high levels of automation that are supported by the mass manufacturing processes.

Overall, employment in apple production in Ireland is currently estimated at around 58 full-time positions and 236 part-time positions, implying around 150-160 FTE positions in the sector. However, large scale manufacturers of cider in Ireland import significant amounts of raw apples and processed apples from outside the Republic. In contrast, all apples used for craft cider manufacturing are sourced from Irish growers. Craft cider manufacturing is supporting 8 FTE positions in apples growing. This means that craft cider manufacturing-supported share of apples growers' employment is around 5.2% of the total, or 2.5-3 times the share of craft cider manufacturers' share of the total cider manufacturing/supply in the Republic. In simple terms, Irish craft cider producers support 3 jobs in apples growing sector for each 1 job supported by mass manufacturers of cider. These figures are relatively consistent across both Cider Ireland and AGAI estimates, although Cider Ireland have pointed out that the 2.5-3 times factor referenced above represents a likely conservative understatement.

In economic terms, this means several things:

- Higher labour intensity of cider inputs (apples and other ingredients that exclude synthetic and artificial inputs widely used in industrial production) in the case of craft cider producers implies a higher cost of craft cider compared to mass-produced cider. This puts craft cider producers at a significant competitive disadvantage relative to larger producers. In addition, craft producers of cider rely on blending varieties of apples to create varied taste offers, which further increases their input costs and anchors more specific, sector-tailored investment in orchards and apple production and processing. Unlike industrial producers, craft cider producers' costs are fully anchored in Ireland;
- Higher intensity of craft cider in terms of utilisation of domestic apples per litre of cider produced implies lower imports of apples into Ireland, resulting in improved net exports component of the national accounts (GDP-additive). The same effect is also present for the final output: craft cider as import substitute for imported wine, pear wine and apple wine, as well as imported ciders, implies a direct positive impact on value added to the Irish economy;
- Higher labour intensity of craft cider inputs (apples) implies higher economic and exchequer returns per litre of cider supplied from craft cider production activities compared to mass cider production activities. This effect is also magnified by a greater share of proprietary and self-employed income in craft cider production than in industrial production;
- Higher intensity of craft cider manufacturing in terms of domestic input utilisation implies better quality of product supplied to Irish consumers (apple traceability, point of origin controls, lower reliance on pesticides and other industrial growth technologies etc). The added cost of generating these and other indirect economic benefits arising from craft cider production are fully absorbed by cider producers, generating a strong, and un-priced, positive economic externality.

It is worth noting that apple production for cider sector has been growing in Ireland in recent years (National Apple Orchard Census, 2012).¹⁵ However, in 2014, a significant decline in the price of apples in Eastern Europe has created a situation whereby Irish apple growers are facing steep competition (based on price) in accessing demand for their product from industrial cider manufacturers. This highlights the importance of better anchored demand for

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<https://www.agriculture.gov.ie/media/migration/farmingsectors/horticulture/horticulturestatistics/NationalAppleOrchardCensus2012221013.pdf>

domestic apple production, as offered by craft cider manufacturing.¹⁶ On the other hand, anchoring cider production to local apple supply can create added risks and increase costs due to variability of supply. For example, expected shortages of crops this year (on foot of a colder spring), can create pressure on input supply for craft cider makers that cannot be fully offset by imports. Such variability of costs of inputs and access to inputs can impose significantly higher costs of production over the years for craft cider makers compared to mass manufacturers.

All the above points should warrant significant incentives for development of the craft cider sector in Ireland, not sector penalisation via excise taxation regime that indirectly favours larger cider producers with lower apple content in output and shallower anchoring of value added in the sector to the domestic, Irish, economy.

Furthermore, there is an urgent need to link taxation of craft cider to the realities of volatility in craft cider makers' costs and production seasonality. For example, both of these factors do not apply to artisan distillers of whiskey and craft brewers. Despite this, craft brewers avail of reduced excise rates, whilst craft cider makers are faced with the highest bands of excise rates compared to mass manufacturers, as discussed in section 3 below.

In addition to differential labour and input costs relating to apple inputs, craft cider makers are also facing more significant production costs in the process of manufacturing, distributing and marketing their products. Current employment in craft cider manufacturing is at around 10 FTE, with additional 10 FTEs employed in marketing. According to Cider Ireland, "this represents ten times more people employed per unit volume produced than is the case for industrial-scale manufacturers". In other words, based on 2014 figures, labour productivity in the craft cider sub-sector in Ireland was at around 33,300-35,700 litres per FTE (for the entire supply chain from apples growers to marketing).

Per data from AGAI and as confirmed by Cider Ireland, approximate output of cider per FTE employee can be distributed as follows: ca 70,000 litres of output per FTE working in apple production for craft cider and 67,000-83,000 litres of output per FTE in craft cider production, marketing and sales. In the estimates presented in Table 2, it is therefore assumed that on average, 1FTE in the apple-growing sector corresponds to 70,000 litres and 1FTE in cider manufacturing corresponds to 75,000 litres of craft cider (average of 67,000-83,000 litre range).

¹⁶ <http://www.irishtimes.com/sponsored/food-island/there-s-eating-and-drinking-in-them-1.1729319> and <http://www.irishtimes.com/lifestyle/features/crafting-a-niche-with-cider-346273.html>

Also notably, large industrial producers and importers of cider in Ireland have significant spending power when it comes to marketing their products domestically and for export.¹⁷ This firepower is out of reach for craft manufacturers.

Based on the reported scenarios in Table 1 for the potential uplift for craft cider manufacturing in Ireland, Table 2 shows the estimated employment impact of trend growth in craft cider production through 2020.

Table 2. Employment Impact: Combined Apple Growing and Craft Cider Production, Marketing and Supply Chain, Full Time Equivalent (FTE)

	Scenario 1.1 Craft Employment	Scenario 1.2 Craft Employment	Scenario 2.1 Craft Employment	Scenario 2.2 Craft Employment
2013	21	21	21	21
2014	28	28	28	28
2015 (e)	29	29	30	30
2016 (f)	34	34	35	36
2017 (f)	38	41	40	43
2018 (f)	41	51	44	54
2019 (f)	44	61	48	66
2020 (f)	48	77	53	85

Source: Author own calculations based on data from Revenue Commissioners, Cider Ireland, ABFI and AICV.

Note: 2015 production is estimated based on data from Cider Ireland, 2016-2018 figures are forecasts

Per Table 2, current global demand potential in the cider sector and craft cider sub-sector, as estimated in Table 1 earlier, is consistent with employment levels of between 48 and 85 FTE through 2020. Based on EUR545/week average earnings in the SME sector in Ireland, this implies potential earnings base by 2020, compared to 2015, of EUR525,360-1,551,800 per annum. The potential tax base on employment-related taxes and excise taxes is estimated in Table 3. These estimates assume a rate of tax extraction (payroll-related taxes) of 30 percent of gross income, and an excise duty extraction at 2014 rate of EUR0.93799 per litre of cider.

¹⁷ <http://www.irishtimes.com/business/companies/heineken-likes-them-apples-with-home-challenge-for-c-c-1.2162619>

A significant share of mass produced Irish cider is manufactured by multinational producers, with core business functions, including marketing and finance, as well as product development and R&D – much of which is based overseas. Beyond this, as noted earlier, craft cider manufacturing uses domestic apple inputs, whilst mass production of cider relies on imported apples and processed apple mass from abroad. Based on AICV report from 2014, Ireland processed 20,000 tons of bittersweet apples, IBFA estimates that Irish cider industry purchases 46,000 tonnes of apples per annum (2012 figures).¹⁸

Table 3. Economic Impact of Craft Cider Production Development in Ireland. Average range of estimates across Scenarios 1.1 – 1.2 and Scenarios 2.1 – 2.2.

	Craft Cider Output, litres		Total Employment in Craft sub-sector, FTE		Craft contribution to excise and payroll-related revenue, EUR	
	Scenario 1	Scenario 2	Scenario 1	Scenario 2	Scenario 1	Scenario 2
2014	1,011,055	1,011,055	28	28	1,199,678	1,199,678
2015 (e)	1,066,704	1,084,261	29	30	1,265,710	1,286,542
2016 (f)	1,232,888	1,273,807	34	35	1,462,898	1,511,451
2017 (f)	1,421,839	1,496,465	39	41	1,687,099	1,775,648
2018 (f)	1,668,128	1,780,694	46	49	1,979,336	2,112,903
2019 (f)	1,906,977	2,069,166	53	57	2,262,745	2,455,193
2020 (f)	2,259,274	2,491,775	62	69	2,680,767	2,956,644
2020 change compared to 2014-2015 average	1,220,395	1,444,117	34	40	1,448,073	1,713,534
Excluded effects (not accounted for in the model):						
1) Imports substitution is likely to increase domestic value added in the economy compared to current model, with craft cider revenue contributions higher than estimated						
2) Imports and domestic production share of craft cider increase will have a marginal positive impact (increase) on demand for domestic apples and other inputs, not fully accounted for above, resulting in higher value added created in Ireland						
3) Auxiliary value added and revenue contributions from complementary services, such as food & tourism						
4) Assumes no migration from lower excise band output to higher excise band output that would be associated with increased share of craft cider in the total output mix						
5) Assumes PAYE recovery rate on employment income, omitting self-employment margins						

Source: Author own calculations based on data from Revenue Commissioners, Cider Ireland, ABFI and AICV. Note: 2015 production is estimated based on data from Cider Ireland, 2016-2018 figures are forecasts

¹⁸ Here in, all ABFI references relate to <http://www.abfi.ie/Sectors/ABFI/ABFI.nsf/vPagesBeer/Media~Newsroom~beer-excite-hike-will-hurt-farmers.-the-hospitality-sector-and-will-cost-jobs!OpenDocument> unless specified otherwise.

These figures imply that anywhere between 45 and 85 percent of apples going into industrial mass production of Irish cider were either directly imported or imported in already pressed form. In other words, there was little value added to these inputs in Ireland until the intermediary production cycle.

In economic terms, these facts imply that mass produced cider manufacturing in Ireland generates less value added in the economy per litre of output, compared to craft cider manufacturing. It also means that mass produced cider generates significantly lower (by at least a factor of 10) addition to Irish GDP and GNP per unit of output than craft cider manufacturing.

Another key production aspect of craft cider manufacturing is timing. Unlike industrial producers who rely on a continual flow of imported inputs, craft cider producers face seasonal variation in the supply of apples and price of inputs. These seasonal variations imply volatile output over the span of the year. Higher seasonal variability in production implies higher storage costs and the inability to supply craft cider on demand using highly efficient logistics and distribution operations.

While large scale manufacturers of cider can avail of global markets for supply of key inputs, domestic crop-linked producers have little alternative to lower costs of production, through utilising imported materials, nor do they have a purchasing power to secure significant imports supplies at advantageous costs. In addition, large producers can avail of globally efficient logistics and supply chain management, while craft cider producers have only a limited access to these cost saving technologies due to variability / seasonality of output. Finally, without access to on-demand supply chains and due to seasonal variability of production, craft cider makers face lower profit margins on their output compared to larger manufacturers, because their contractual agreements with buyers and distributors have to factor in added risk of seasonal variability.

As a note on the economic advantages arising from craft cider production, consider the following aspects of craft cider supply compared to mass produced cider:

- 1. Tourism and food services benefits:** alongside craft breweries and independent whiskey distilleries, craft cider producers can form a crucial segment of the food and drink sector offer to younger and more affluent consumers, including tourists from key markets developed by the Irish hospitality sector (the U.S., UK, Germany, France, Italy and Spain, where cider consumption is growing and where craft cider consumption is expanding at much higher rates than consumption of other alcoholic beverages) and from new markets, such as, for example, Russia (where

cider consumption is growing at one of the fastest rates in Europe) and the rest of BRICS (where cider is viewed as a novel, indigenously European product of high quality and unique character).

- 2. Product offer diversification supportive of Irish drink sector brands (export of goods and services):** the same demographics that create a strong demand potential for craft cider amongst visitors to Ireland also favour consumption of high quality imports from Ireland, implying strong potential demand for Irish craft ciders abroad. However, inclusion of craft ciders into Irish drink sector exports carries added benefits in terms of helping to present Ireland as a source of diversified drink product offerings. As in the case of small independent distillers of whiskey, craft cider producers offer the benefit of increasing diversity of Irish-branded cider products available for purchase outside Ireland. This creates added support for established Irish cider brands as well as for other drinks brands as their marketing and sales of products abroad can be supplemented by greater visibility of the Irish drinks product range in those markets. Furthermore, due to higher traceability of inputs (Irish-sourced apples), craft cider manufacturing fits closer to Irish marketing platforms, such as Origin Green and Food Wise 2025. In addition, as noted by Cider Ireland, craft cider manufacturing's link to locally grown apples provides a pathway to significant carbon sinks (via use of Irish-grown inputs) which creates a very strong connection between the Origin Green brand and craft cider manufacturing – much stronger than in the case of Irish craft breweries and independent distillers.
- 3. Development of indigenous know how:** Irish craft cider relies on Irish inputs into production, including Irish skills and human capital. These skills and human capital are anchored in Ireland through more direct connections between craft cider producers and apple growers, as well as by more rural distribution of craft cider production. In this, skills and human capital acquired in development of the indigenous craft cider sub-sector (including financial, marketing, logistics and R&D know-how) are less likely to be lost to relocation as compared to skills and human capital employed in mass production by multinational operators.
- 4. Regional development diversification:** Craft cider producers are predominantly based in agricultural / rural areas, according to Cider Ireland, contributing to development of the rural economy. The multi-annual nature of investment in orchards also offers significant contrast between craft cider manufacturing (longer-term supply chain investment perspective) and craft breweries and distillers (short-term supply chain investment perspective).

Section 3: Excise Taxation

Given the economic benefits linked to craft cider production compared to mass production, and the market potential (domestic, imports substitution and exports), it can be expected that craft cider will be treated on at least an equal footing in terms of taxation to mass produced cider and beer. The case for such level playing field approach to taxation is also supported by the significant economic headwinds experienced by craft cider manufacturers.

However, contrary to expectations, in reality, an unfavourable excise taxation regime de facto levies a higher excise tax burden on craft producers compared to mass producers and compared to beer producers. This unintended outcome of the excise system arises due to bands separating tax rates by alcohol content of cider that are reflective of the sector that is relatively homogenised across the industrial producers, but is no longer consistent with a more diversified product offerings, consumer tastes and export market development consistent with the rising share of craft cider in domestic production.

Presently, Irish producers are facing the second highest rate of excise on cider in the EU with extreme progressivity in the rates based on alcohol content (abv, %) as detailed in Table 4. In addition, cider producers are faced with a significant legacy of the crisis management in the Irish economy – repeated and steep increases in excise duty. While the latter consideration is a matter of policy priorities that have little to do with cider sector, the former issue warrants re-consideration due to two aspects of the current excise bands schedule:

- 1) The scope for enhancing future revenues and economic value added growth arising from the craft sector potential; and
- 2) The need to level the playing field in terms of taxation applying to manufacturers of similar products that are treated equivalently in the market place by domestic and foreign consumers: mass produced cider and craft cider.

As Table 4 shows, all cider makers in Ireland face a steep increase in excise taxation within a relatively modest range of abvs under 6% by volume. However, even with this rate of taxation, cider manufacturers in Ireland are facing an excise rate that is one of the highest in the EU. According to ABFI, Ireland has the second highest rate of excise in EU on cider, with an increased rate kicking in at a relatively low abv %. ¹⁹ Cider producers in Ireland carry the highest burden of excise taxation, compared to their EU counterparts, for any alcoholic beverage

¹⁹

http://www.abfi.ie/Sectors/ABFI/ABFI.nsf/vPagesABFI/Industry_in_Ireland~taxation!OpenDocument

produced domestically in Ireland. Based on AICV data²⁰ (using different methodology from ABFI data), in 2013, Irish cider excise tax (for 5% abv) was the fourth highest amongst the EU countries surveyed and was roughly 40% higher than excise rate on comparable (in strength) craft beer. This figure does not reflect Budget 2014 increase in excise duty.

Comparatives with the UK regime can be useful in so far as the similarities of the Irish and UK markets. Per EU assessment, as detailed in Table 4.²¹

Based on 2014 data, per ABFI, the effective excise tax burden on Irish cider was 1.9 times higher than that in the UK. For example, compared to the UK, Irish cider producers with <6% ABV faced an average tax rate of EUR70.85 per hectolitre, against the UK EUR50.96 per hectolitre. However, as over 99.8 percent of the total excise tax revenue arises from Irish and imported cider within 2.8%-6% ABV, Irish producers are facing the actual effective excise rate of EUR94.46 per hectolitre – a rate 85% higher than their UK counterparts.

Table 4. Excise Taxation of Cider: Ireland and UK

	IRELAND		UK	
	Standard rate:		Standard rate:	
	Excise (EUR/hcl)	VAT	Excise (EUR/hcl)	VAT
Cider > 8.5% vol still	309.84	23%	351.21	20%
Cider > 8.5% vol sparkling	619.7	23%	449.85	20%
	Reduced rates:		Reduced rates:	
Cider < 2.8% vol still & sparkling	47.23	23%	49.95	20%
Cider >2.8% and <=6% vol still & sparkling	94.46	23%	49.95	20%
Cider >6% and <=8.5% vol still	218.44	23%	75.49	20%
Cider >6% and <=8.5% vol sparkling	218.44	23%	340.03	20%

Source:

http://ec.europa.eu/taxation_customs/resources/documents/taxation/excise_duties/alcoholic_beverages/rates/excise_duties-part_i_alcohol_en.pdf

By the nature of their manufacturing processes (greater use of apple-derived content in cider per volume), craft cider has a higher alcohol content. This, effectively, pushes many craft ciders into higher excise tax rate categories consistent with abv of 6% and above. This does not apply to the majority of mass

²⁰ AICV, 2014: *European Cider Trends 2014*, European Cider and Fruit Wine Association.

²¹

http://ec.europa.eu/taxation_customs/resources/documents/taxation/excise_duties/alcoholic_beverages/rates/excise_duties-part_i_alcohol_en.pdf

produced ciders where water is used more aggressively to dilute apple juice and sugar/sweeteners are added post production.

Chart 3. Domestic and Foreign Production Shares and Excise Tax Revenues



Source: Author own calculations based on data from Revenue Commissioners, Cider Ireland, ABFI and AICV.

Note: 2015 production is estimated based on data from Cider Ireland, 2016-2018 figures are forecasts

Over the period of 2004-2014 for which Revenue data is currently available, the trend shows two interesting regularities:

1. As domestic producers' share of the Irish market declined from 88-90% of the market in 2004-2006 to the period low of 85% of the market over 2010-2011, excise tax revenue collected from the overall supply of cider in Ireland has fallen from an average of EUR0.43 per litre to EUR0.664 per litre (Chart 3). Subsequent increase in revenue, in 2014, was predominantly driven by higher rates of taxation, rather than by changes in domestic producers' share of the market.
2. Estimates in Tables 1-3 exclude a range of positive effects and potential growth factors from the forecasts for both overall cider production in Ireland through 2020 and craft cider production. These factors are: accelerating growth in demand for craft and premium ciders around the world, improved markets for exports, spillover effects from cider and craft cider production to other sectors, etc. The estimates also exclude any imports substitution, discussed earlier. Excluding these potential factors,

and holding domestic producers' share of the market at 2004-2005 period average generates significant uplift in potential output levels in the sector (Table 1) of between 6-12 million litres through 2020 compared to 2014-2015 levels.

Over the last 10 years, worldwide cider production increased by some 50% (Rabobank), which is a simple rate of increase of around 4.15% per annum. Over 2004-2014, Irish production of cider fell 20.8% cumulatively. As detailed in Table 3 above, achieving sector potential in terms of growth in craft cider production can significantly enhance both the revenue side of the balance sheet and economic impact.

Section 4: Conclusions

The craft cider sub-sector in Ireland is currently developing against strong market and taxation policy headwinds. To maximise sub-sector economic contribution to Ireland and to capitalise on growth, social and cultural opportunities and potential of the sector, Irish policy should pursue active levelling of the playing field when it comes to excise taxation impacting the overall cider sector.

The best practice, evidenced by the majority of the EU countries which provide single or two-band excise system on cider²², would be to shift excise taxation of cider and perry to a three-band system:

- Band 1: Cider < 2.8% vol still & sparkling at EUR47.23 per hectolitre;
- Band 2: Cider >2.8% and <=8.5% vol still & sparkling at EUR94.46 per hectolitre; and
- Band 3: Cider >8.5% still and sparkling (€309.84/HL & €619.70/HL respectively).

This would remove the current middle excise band for all cider manufacturers – craft and large, avoiding any potential issues with preferential treatment for any given sub-sector. As new bands will apply to all cider producers, the measure will simply reflect the reality of craft cider production (higher alcohol content present in a more natural product) removing the currently existent de facto penalty on craft cider manufacturing. The measure will also provide a symmetric

²² "EXCISE DUTY TABLES" Part I – Alcoholic Beverages. EUROPEAN COMMISSION, DIRECTORATE-GENERAL TAXATION AND CUSTOMS UNION; Indirect Taxation and Tax administration, Indirect taxes other than VAT. REF 1044, July 2015

recognition to larger producers should they choose to engage in production of ciders made with 100 percent apple juice. Thus, the proposed measure – in line with AGAI proposal – will be non-discriminatory in nature and will not constitute an unfair treatment of any producer of cider in Ireland.

Additional measures for support of the craft cider sub-sector development in Ireland can be considered in line with Cider Ireland proposals, including:

- Creating a unified retail and wholesale license for craft cider manufacturers to reduce red tape and compliance costs for smaller producers in-line with the reality of manufacturing and cost constraints faced by the sub-sector compared to industrial manufacturers of cider;
- Alleviating costs and compliance burdens relating to warehousing of craft cider;
- Modification of the wording of Section 26 of the Intoxicating Liquor Act 2000 which currently permits the sale of beer under a wine ‘on’ licence (subject to certain conditions) but not cider.
- Reducing compliance and cost burdens for retailers of cider;
- Reduced VAT rate should be considered for craft cider sales directly to visitors to craft cider manufacturing locations to encourage local tourism and travel and to stimulate closer links between craft cider manufacturers and apple growers;
- Craft cider manufacturers in Ireland should be priority-targeted by the exports support agencies for development of export potential of the sub-sector; and
- Potential tax incentives for small scale on-premises tourism development (B&B and food provision) linked to craft cider manufacturing where such activity is linked to local apples production.

These proposed changes will have minimal impact on immediate revenue streams from the craft cider producers, leading to an estimated decline in excise revenues in the region of EUR36,000 (based on 2014 figures) as estimated by Cider Ireland and AGAI.

However, potential benefits of the excise duty change can be significant. As shown in Figure 1 and Table 1, craft cider output potential under the current development scenario ranges (at the lower end) at 1,502-1,822 hectolitres per annum in 2016 compared to 2015 (Scenarios 1.1 and 1.2), rising to 1,730-2,061 hectolitres in a more benign growth environment (Scenarios 2.1 and 2.2). This alone represents annual revenues potential of some EUR141,853-194,672 in excise duty for 2016 compared to 2015, if the duty applies at the reformed higher band rate of EUR94.46 per hectolitre.

In more general terms, roughly halving the craft beer success for craft cider sub-sector will lead to output in the sub-sector rising by as much as 3-fold to just under 3.1 million litres annually (Scenario 2.2). Taking the averages of two scenarios (Scenarios 1.1 and 1.2 average, and Scenarios 2.1 and 2.2 average), as detailed in Table 3 above, implies the following estimated economic benefits of the measure:

- Increase in employment and excise taxation revenues of EUR197,188-224,908 in 2016 compared to 2015; and
- Increase in employment and excise taxation revenues of EUR1.42-1.67 million in 2020 compared to 2015.

Other economic benefits, outlined earlier will have an indirect impact on Exchequer revenues and will likely have a significant multiplier effect in the longer term (3-5 years).

Based on current potential growth trends in the sub-sector, gross revenue loss due to the proposed change in the excise tax is expected to be more than fully offset by growth in the sub-sector arising from the new measures that can help level the playing field for craft cider manufacturers within the first 12 months of the new regime operation.