9

The South African Wine Industry

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9.1 Introduction

A number of aspects of the structure of the South African wine industry are of interest to any speculation about the likely futures of the industry. These include the structure of farm sizes, the relationship between what was traditionally called 'the trade' or producer wholesalers (brand owners) and the erstwhile cooperatives, the dominance of one firm in the market for branded wine, and the competitiveness of the industry as a whole, that is, including the upstream and downstream industries that service the sector. In this chapter, the origin and consequences of these are explained, to give a clearer picture of the likely future trajectory of the industry.

9.2 Historical Background

The South African wine industry, which marked its 360th vintage in 2018, has experienced only three long expansions throughout its history, and each of these was driven by export markets (Vink et al. 2018a). The first of these coincided with the establishment of the Dutch settlement in the Cape in 1652. This reliance on Europe and European geostrategic interests is summarized by Katzen (1982: 185) as follows:

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> The new Cape always remained a genuinely colonial society, which could not achieve the autonomy and self-sufficiency of the San and Khoikhoi societies which preceded it. The settlers provided both the impetus for its growth and the measure of its dependence. The birth of the settler community was linked with the economic value to Europe of the Cape's resources, a harbour with fresh water where fresh vegetables and meat could be produced for passing ships. The existence of the 'Tavern of the Seas', the town of De Kaap [Cape Town] and its hinterland of corn and wine farming in the south-western Cape, was always dependent on its usefulness to Europe, expressed in the size of the Cape market constituted by the garrison and the visiting ships.[1]

Europeans knew about the Cape since 1488 when the Portuguese seafarer Bartholomew Diaz reached the Cape on his way to opening the Asian spice trade. However, the Portuguese had little interest in a settlement there because they (Katzen 1982: 187)[2]:

> [C]rossed the Indian Ocean on the south-west monsoon on their voyages from Lisbon to Goa or Cochin, usually stopping at Mozambique on the way out, St Helena or the Azores on the way home.

In other words the Cape was too close to the origin of both outward and homebound journeys.

The Dutch and the English traveled around the Cape at the same time and with the same objective: to break the Portuguese monopoly of the spice trade (Terreblanche 2014). They both aimed at the weak point of the Portuguese monopoly, namely, South-East Asia rather than further north in China. The Cape was conveniently almost halfway on this new route (Katzen 1982)—thus the creation of the refreshment station on 6 April 1652 by the Dutch East India Company (the VOC). However, the settlement soon proved too expensive to run, so in 1657 the Company started to hand out land and cheap loans to free burghers to encourage settlement, in the process disregarding the land rights of the indigenous population (Terreblanche 2014).

Unfortunately, these free burghers also wanted to be free to take on slaves. Williams (2016) explains that Jan van Riebeeck, the first Commander of the settlement, took less than two months after his arrival to ask the company

[1] The total settler and slave population of the Cape remained lower than 1000 people through to around 1720, while the average number of sailors and soldiers aboard ships in the Cape Town harbor numbered more than 6000 per year, hence an export market (Boshoff and Fourie 2010).

[2] Katzen quotes from Boxer (2001). This is a translation (originally published in 1959) of a Portuguese publication by Bernardo Gomes de Bruto on famous Portuguese shipwreck stories.

authorities in Batavia (present-day Jakarta) for slaves 'to do the dirtiest and heaviest work in place of the Netherlanders'. As the production of wine constituted the largest source of revenue to the VOC for much of the first century, the wine farmers were politically influential. However, the VOC would not allow the enslavement of the indigenous 'free' Khoi, as they wanted to trade cattle with them. Slaves were, therefore, brought in, the first coming from what is now Angola, but most thereafter from the east. Thus, in the words of Williams (2016: 895) 'The elementary social and political relations of a slave economy and a slave society had been put in place –slaves and their masters producing wine and wheat under the authority of a merchant company'.

The second long expansion took place during the late 1700s and was also dependent on the strategic location of the Cape. In this case, Britain's competition with France for colonial possessions in Asia (specifically India) during the time of the Napoleonic Wars resulted in a French attempt to occupy the Cape. This was thwarted by Britain, which occupied the Cape in 1795 (and again in 1803) in order to keep their link to India open (Van Jaarsveld 1975). The resulting boost to the British economy spilled over to wine exports, which were given preferential access to the British market through to 1860 (Vink et al. 2018a).

The third long expansion in the South African wine industry coincided with the political changes of the 1990s that marked the end of *apartheid,* ushered in democracy, and resulted in growth in per capita income for the first time in decades. These changes marked a complete break from the past which, in the case of the wine industry, had been shaped by the Land Acts; by the establishment of a cooperative, the KWV,[3] in 1918 that eventually gained statutory power over the industry; and by a concerted effort among a small group of pioneering wine farmers to improve the quality of wine produced in the late 1960s and early 1970s.

Apartheid was introduced into South Africa as formal government policy after the National Party won the elections in 1948. With these elections, the government inherited a land dispensation that rested on two important laws, namely, the Natives Land Act of 1913 and the Native Trust and Land Act of 1936. These cemented the dispossession of land from black people that had occurred since the first settlement (Delius and Beinart 2013). They had two important implications for the industry, namely, that land ownership would

[3] 'Ko-operatiewe Wynboukundigeunie van Suid-Afrika' (later the 'Ko-öperatieve Wijnbouwers Vereniging van Zuid-Afrika, Beperkt' KWV, or Cooperative Wine Farmers' Association of South Africa, Limited).

be segregated (the 1913 Act stipulated that black people could only buy or lease land from other black people, and vice versa) and that the land rights of black people would be attenuated (e.g. their 'ownership' could not be used to secure a mortgage and did not qualify as property rights for the purpose of voting). Thus the Acts served as the basis for the suppression of black farming in an attempt to ensure a steady supply of (cheap) labor to the mines and to the farms of white South Africa (Greyling et al. 2018). At the same time, white farmers were supported in a myriad of different ways, including legislation to support the establishment and growth of cooperatives in the form of tax concessions as well as the principle of 'forced cooperation' as a means of countering free riding.

The KWV was established in 1918 against the wishes of 'the trade' (today's producer wholesalers[4]) (Van Zyl 1993). The aim was to counter the weaker bargaining power of grape growers (and their cooperatives where these existed). Members had to sell through KWV, which would in turn declare a surplus annually, which would be delivered free of charge and turned into spirits for disposal at the discretion of the organization. The restriction was that no produce could be sold on the domestic market at lower than the minimum price. The income would be used to finance the purchase of distilleries, vats, and buildings, and profits would be distributed to members on a pro rata basis. Ironically, the trade agreed to distill and store the surplus on behalf of KWV, and to purchase only from KWV. This was in exchange for an undertaking from KWV not to compete in the market with their products and not to deal directly with their clients. This agreement was eventually taken up in legislation in 1924 and formed the basis of a symbiotic relationship between the two parties until the 1990s.

However, the agreement proved to be ineffectual until KWV was granted statutory powers in a process that started in 1924, mainly because grape growers sold directly to the trade at less than the minimum price when it suited them (Van Zyl 1993). These statutory powers were expanded over time and eventually included the ability to set a minimum or floor price, to limit production by means of quotas, to force sales of all wine through the KWV, and to declare an annual wine surplus that had to be delivered to KWV free of charge. KWV also implemented production quotas in an attempt to gain control over the surplus even before it was produced. In the process, KWV

[4] The industry body that represents their interests is the South African Liquor Brand Owners Association (SALBA), earlier known as the Cape Wine and Spirit Institute (CWSI).

also gained a de facto monopoly on exports, as no one else took an interest in this market, especially after the advent of sanctions in the 1970s.

The main problem with the institutional arrangement was one of governance: the Board of Directors of KWV was elected by holders of quotas in the respective wine-producing districts, but each quota holder had a vote regardless of the quota size. The result was dominance by small-scale producers, most of whom produced wine grapes as an additional activity or held the quota mainly to get access to KWV products at a discount price, that is, they had an incentive to keep the minimum price as high as possible at the lowest possible cost of production, regardless of the fact that this encouraged an even greater surplus of inferior quality wine.

By 1990 the industry consisted of the KWV at the apex, with 70 cooperative cellars (now producer cellars) established by the grape growers, and who sold wine in bulk to KWV and to 'producer wholesalers', who established brands that were sold into the retail sector (both on and off consumption). There were also a small number (166) of private producers, some of whom were registered as wine estates (private cellars in today's nomenclature) who grew grapes and made wine on their own property and sold directly into the retail trade. This segment of the market was, however, largely unregulated and unexploited until the early 1970s when three estate owners pioneered the Stellenbosch Wine Route, just before the introduction of the Wine of Origin system in 1972, which formalized the definition of the different wine regions, and of the wine estates. This attempt to improve the quality of wine produced in the country was however dependent on the domestic market because increasingly effective boycotts and sanctions blocked access to export markets. However, by then the rapid growth in the post-WWII economy had turned into two decades of declining per capita income, starting in 1974. Growth in the super-premium and premium segments of the (white) domestic market was constrained, while the black middle class was still small (e.g. Southall 2004).

The end of the twentieth century therefore saw an industry that consisted of large numbers of relatively small-scale grape producers, relatively small cellars, only a handful of wine estates, and production that was dominated by Chenin Blanc grapes, planted mostly for volume rather than quality production. This was, in other words, the foundation upon which the post-apartheid boom in exports was built and explains to a large degree the idiosyncratic structural features of the modern industry. To this end, the next section provides an analytical description of the state of the industry in the early 1990s.

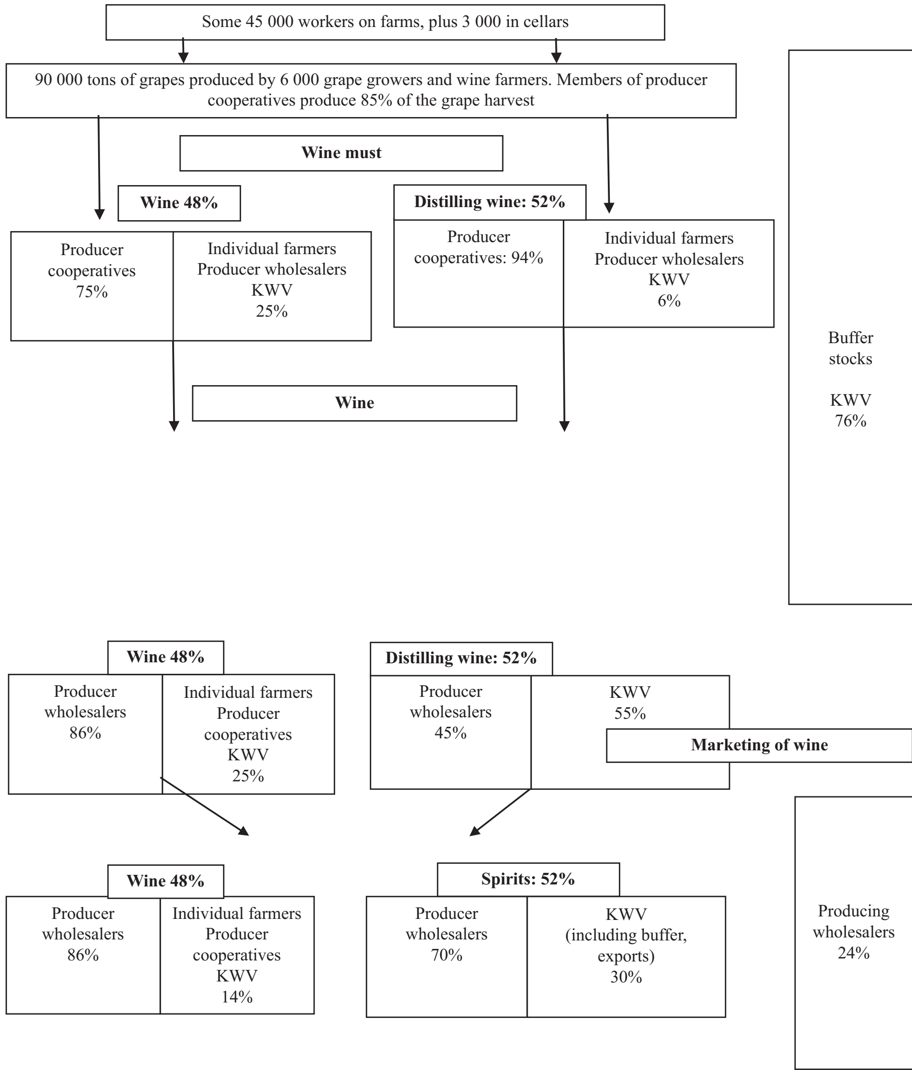

Fig. 9.1 The flow of product in the South African industry, 1982

9.3 The Industry at the Dawn of a New Era[5]

The institutional structure of the South African industry started to change almost as soon as the political changes of the first half of the 1990s took hold. The most important changes were to the role of the KWV, the structure of 'the trade' and of the cooperatives and lastly to the functioning of the wine estates and of the grape farms. The structure in 1982 is illustrated in Fig. 9.1.

Most of the grapes (85%) were delivered to the producer cooperatives, which were responsible for turning most of the grapes into grape must. More than half of the harvest (52%) was destined to be distilled, rather than turned into wine. At this stage, however, the producer wholesalers took over, turning 86% of the must destined for wine into wine, and 45% of the must destined to go to distilling into spirits. KWV was responsible for the rest of the distillate (55%). The producer wholesalers were responsible for marketing 86% of the wine (i.e. for the share that they processed) and for 70% of the distilled product, while KWV either 'marketed' 30% of the total as exports or kept as buffer stocks.

The impact of these changes can be seen in the structure of the modern industry. Therefore, the more recent history of each of these role-players is described in this section, as a precursor to an analysis of the modern structure of the industry.

9.3.1 The KWV

Under South African law, if a cooperative wanted to transform into a conventional joint stock company, it had to apply to the Supreme Court for permission. When KWV applied for such permission to the Western Cape Division, the Minister of Agriculture and Land Affairs, Derek Hanekom, approached the Court with information that he, as a representative of the public, had an interest in the matter and that it could not be allowed to go ahead until that interest had been recognized. As a result, a Ministerial Committee of Inquiry[6] was established in January 1997 and reported in February (RSA 1997). The core issue addressed by the Committee was which assets, acquired by the KWV to perform its statutory duties, belonged to the state or to various interested parties such as the producers. The report of the Committee recom-

[5] Data in this section are from the annual publication of South African Wine Industry Information and Systems (SAWIS) (http://www.sawis.co.za/info/annualpublication.php) unless otherwise specified.

[6] The author of this chapter was an independent member of this Committee.

mended deregulation of the industry, with remaining statutory powers (e.g. levies to collect information and fund research, maintenance of quality standards) to be placed under the control of a body that represented the whole industry. These recommendations were acceptable to the Minister.

At the same time KWV agreed to contribute R200 million[7] over 10 years and to provide services, valued at a further R227 million, for 5 years, to the South Africa Wine Industry Trust (SAWIT) (Business Day, 10 September 1997), a new institution whose Board was appointed by the Minister. Today these functions (information, generic promotion, research funding, transformation projects, etc.) are paid from statutory levies implemented under the Marketing of Agricultural Products Act and executed by four 'business units' that serve the industry (Vink et al. 2004). KWV became just another producer wholesaler in the industry. After changing hands a few times, the current controlling shareholder is non-listed UK-based investment group Vasari. The company has not done well compared to Distell, for example. In January 2005, Distell's share price was R26.00, while KWV's was R34.00 (Fin24 2005). By contrast, in 2016, at the time of the sale of KWV to Vasari, its share price was estimated at around R20 (Crotty 2016), compared to Distell at above R160 for most of October 2016.

9.3.2 The Producer Wholesalers

Numerically, the South African wine industry has always been dominated by grape growers, with never more than 20% of them having their own cellars on-farm to turn the grapes into wine. Their numbers ranged from some 6000 in the early 1980s to little more than 3000 today. Instead, most wine was made by the producer wholesalers (so-called because they also produced some grapes, but mostly bought in grapes, wine must, or wine, branded the product, and sold it into the retail market). The largest of these in 1990 were Stellenbosch Farmers Winery (SFW), Distillers Corporation, Gilbey's, and Douglas Green, all well-known purveyors of wine at that time. The current structure of these entities is, however, a product of the 'beer wars' of the 1970s (Mager 2008).

South African Breweries (SAB) was formed in the mid-1950s out of a number of smaller breweries. In 1960 it branched into the wine business by assuming control of SFW as a means of safeguarding its interests as an 'English'

[7] At a time when the exchange rate was in the order of $1 = ZAR4.50 – R4.70, that is, around $40 million.

company that had to keep on the right side of an Afrikaans government (Mager 2008). Shortly thereafter, Anton Rupert, a leading Afrikaner business figure, established the Oude Meester Group as a purveyor of fine wines and brandies. In 1972, the beer wars started when Louis Luyt, a fertilizer baron, established Luyt Lager and some other brands, together with Rupert, who took a 25% shareholding. However, neither the business nor the partnership flourished, so in 1975 Rupert bought out Luyt and established Intercontinental Breweries (ICB). By that time, SAB (with 131 stores) and the Rembrandt interests (with 180 stores) also had control over the retail market for liquor in South Africa (which consisted of 372 liquor stores) (Mager 2008).

However, ICB was losing money and SAB disliked competition. As a result, a deal was brokered between the two in 1979 (Mager 2008) and approved by Cabinet (Vink et al. 2004). First, SAB bought ICB in its entirety. In exchange, Rembrandt, SAB, and KWV formed Cape Wine and Distillers (CWD), the result of the merger of the three major players in the wine and spirits sector, SFW, Distillers, and Castle Wine. KWV purchased 30% of SFW and of Distillers and, together with Rembrandt, acquired the majority joint interest in CWD. The three principals each had a 30% shareholding, with SAB as a silent partner. The net result was that SAB was back to having a near monopoly of the beer market, while CWD had 75% of the turnover of the wine and spirits sector. Both eventually relinquished ownership over the retail sector, so the vertical integration of the two industries ended.

In 1982 the Competition Board interceded in this blatantly anti-competitive arrangement, condoning the beer monopoly, but declaring the rest of the arrangement to be illegal. However, it took little more than a meeting of a cabinet committee chaired by the Prime Minister (P.W. Botha), who had consulted Rupert and KWV and the Minister for Industry, Dawie de Villiers, to put an end to this interference. Subsequently, SFW and Distillers were again separated in 1988 but were amalgamated in 2000 to form Distell, the largest winemaker and liquor brand owner in the modern South African industry, with a large portfolio of imported and locally produced spirits, and beverages in the ready-to-drink (RTD) market, with ciders taking up the lion's share of these.

The unique position that Distell fills in the South African domestic market is evident from the data in Table 9.1, which shows the degree of concentration in domestic market share of the dominant companies globally. The upper panel shows market share, and the lower panel the Herfindahl-Hirsch Index (HHI), a measure of concentration—the lower the index, the more competitive the market. An index of below 1500 is usually regarded as a sign of healthy competition.

Table 9.1 Concentration in the market: a 'new world' comparison, 2014 (%)

	Argentina	Australia	Chile	New Zealand	South Africa	USA	World
Market shares (%)							
Largest winery	27	16	31	23	31	23	12
Second largest winery	14	9	30	11	3	15	8
Third largest winery	12	9	29	10	2	13	6
Fourth largest winery	7	7	1	9	1	6	3
Combined share	60	41	91	53	36	44	30
All others	40	59	9	47	64	56	70
Herfindahl-Hirsch Index (HHI)							
Largest winery	252.81	729.00	930.25	547.56	930.25	524.41	151.29
Second largest winery	86.49	198.81	876.16	129.96	6.25	210.25	67.24
Third largest winery	84.64	144.00	846.81	90.25	2.56	166.41	40.96
Fourth largest winery	49.00	43.56	1.96	75.69	1.96	31.36	10.24
Total	472.94	1115.37	2655.18	843.46	941.02	932.43	269.73

Source: Based on Anderson and Pinilla (2017)

In Chile (Concha y Toro) and South Africa (Distell), the largest enterprise has a market share of above 30%, far higher than their next competitors, New Zealand and the USA, with 23% each. However, large enterprises dominate the Chilean market, with the combined market share of the four biggest operators above 90%, which is in turn higher than any of the other countries, as shown by the HHI which shows that Chile's is the only uncompetitive domestic market among these countries. The South African market is unusual because, even though it has the lowest market share for the four largest enterprises at 36%, it has a higher HHI than all except Australia and Chile. Thus, in South Africa, one firm dominates the domestic market, given that the country imports less than 0.5% of domestic consumption.

9.3.3 The Producer Cellars

As mentioned, the current producer cellars started life as cooperatives, registered under a series of Acts of Parliament that protected this business form and supported its activities through most of the twentieth century. In keeping with the liberalization fashions of the past few decades, though, there are

hardly any cooperatives left in South African agriculture and, where they have survived in the wine industry, it is more for convenience that out of any conviction that it is a superior business form.

Most of the cooperatives established under this legislation were in the field crop industries, that is, maize and wheat, and their main purpose was to supply inputs (including credit) to their farmer members. There were fewer cooperatives that took responsibility for processing farm products—these were prevalent in livestock products (dairy) and notably in wine, where wine grape farmers formed cooperatives to process the grapes into wine. There were 5 such cooperatives in 1915, 20 in 1945, and 69 by 1975, a number that remained through to 2000, that is, during the period when they started to change enterprise form from cooperatives to joint stock companies. These cooperatives handled 89.9% of the wine grape harvest in 1976.

The process of conversion of cooperatives to joint stock companies should be based on sound business principles: Sikuka (2010) summarizes the arguments that have been used, including the value of equity, corporate acquisition, the cost of equity, and the efficiency of the governance structure. Cook (1995) argues that cooperatives develop through different stages and come to a point where they have to choose between exit, continuation, or transition. However, as virtually all of South Africa's agricultural cooperatives (including the wine cooperatives) transformed at more or less the same time, it is clear that the driving force was rather the fear that the new government was going to relieve them of assets such as grain silos and cellar machinery that were built up with support from the former regime.

In many cases, the wine cooperatives are still operating in the same way as they did in the past, especially the operation of pool systems, whereby all wine of a certain type is pooled regardless of origin, and farmers are then paid out the average of the pool. This gives rise to familiar problems (Vink 2012), first of which is 'hiding in the pool' or adverse selection. In a pool system, the individual farmer has an incentive to deliver a product whose quality is below the average quality of the pool (and hence costs less to produce), and this works against all attempts to improve quality. Of course, the managers of a pool have to contend with fixed technology: they are operating a processing plant that may not be able to cater for small production runs, typically the case with higher-quality produce. There is also the problem that managers are tempted to overcompensate themselves when calculating the deductible cost of administering the pool.

9.3.4 The Private Cellars

The picture of a magnificent Cape Dutch homestead rising out of serried trellised ranks of green vines defines the image of itself that the industry has long propagated both domestically and overseas. The first of these wine farms was Groot Constantia, founded in 1685 and the oldest wine-producing farm in South Africa. These private cellars crush less than 25% of the total grape harvest in the country but capture an obviously larger proportion of the value of wine sold and exported (a statistic that is unfortunately not readily available). What we do know is that the off-consumption market is about 50–60% of the total domestic market and that the domestic market for basic wine is 56 times larger than the domestic market for ultra-premium wines in volume terms and 9 times larger in value terms. It is also three times larger in value terms than the market for super-premium and ultra-premium wines put together.

These wine farms were generally unregulated and without legal protection until the Wine of Origin system was introduced in legislation in 1973 in accordance with the Wine, Other Fermented Beverages and Spirits Act, 1957, largely because of the need to comply with EU regulations. It is in a sense a hybrid scheme, somewhere between the extremes of control found in Burgundy and Bordeaux and the much more relaxed rules found in the USA and Australia. It protects not only the geographic origin of a wine but also the cultivar and vintage.

The smallest demarcation is a 'single vineyard wine', where the vineyard may not exceed 6 hectares. This is followed by an estate wine, which has its own production cellar on the farming unit where the wine is produced: when this appellation is used, it means that the wine was produced from grapes grown on that unit. The next level is a ward, which describes a small demarcated area which may or may not fall under a district, which is the better known geographical description, and includes the well-known Stellenbosch and Paarl. Different districts then constitute a region, such as Klein Karoo and Coastal Region.

One of the more interesting changes over the past few decades since the introduction of this scheme is that most of the 'estates' have deregistered from this appellation (hence the more accurate 'producer cellars' because the constraint that grapes had to be produced on the farm itself meant that these enterprises could not fully exploit the value of their brands). Producers such as Beyerskloof and Kanonkop have made full use of this opportunity, using their brand image as super-premium wine producers to bring in high-volume

second labels that sell at a premium in the market. So, for example, in 1991 there were 77 estates and 59 'non-estates' among the producer sellers, while by the year 2000 there were 92 estates and 185 'non-estates'. Today there are no more than a handful of estates left.

The producer cellars are even more geographically concentrated than the industry itself. Stellenbosch (which until 2017 included the Cape Town wineries around Groot Constantia and Durbanville) had 16.36% of the country's vines and 16.02% of the vineyard area, but 44% of all the private cellars.

9.3.5 The Wine Grape Farms

Most of the wine grapes grown in South Africa are grown on farms that produce grapes and not wine (and most of these farms produce grapes as one of a range of different enterprises, i.e. not many actually specialize in viticulture). The number of these grape growers has been declining quite rapidly: from more than 6000 registered growers in the 1970s to around 4600 in 1994 (and fewer than 3200 in 2016). However, most of these are small-scale growers. In 1997, for example, half of them delivered or pressed fewer than 100 tons of grapes, declining to 40% in 2016. At the same time grape producers were investing less: the area under vines has declined from above 103,000 hectares to some 95,000 currently. Furthermore, in a system where vines are kept on average for 20 years, the annual replacement should be 4%, that is, 20% of the national vineyard should be equal to or less than 4 years old. Instead, this proportion was 12.9% in 1997 and only 7.3% currently.

The cultivar composition of the South African industry also tells of the impact of the measures that KWV put in place to manage the surplus. The three most prevalent grape cultivars in the industry were the high-bearing Chenin Blanc, Palomino, and Colombar, represented 50% of the vineyard in 1975–1985, dropping to less than a third by 2005. By contrast, the plantings of Sauvignon Blanc, Chardonnay, Cabernet Sauvignon, Shiraz, Merlot, and Pinotage made up a derisory 5% of plantings in 1975 and were still less than 10% in 1990. Of course the Chenin Blanc planting of today is very different from that of the earlier era, while the area under Palomino and Colombar is now derisory.

9.3.6 Farm Workers

The policy environment for commercial agriculture in South Africa changed radically in the space of less than two decades, starting in the early 1980s with the withdrawal of a range of direct subsidies,[8] followed by accession to the Marrakesh Agreement and membership of the World Trade Organization (WTO) in early 1994, a few months later by a unilateral reduction in many tariff lines for agriculture to below the WTO bound rates, and in 1997 by deregulation of commodity markets when the Marketing Act of 1968 was replaced with the Marketing of Agricultural Products Act of 1996. Yet while the new government was deregulating commodity markets, it also started to intervene in resource markets (water, energy, land, and labor) (Vink et al. 2018b).

Until 1994, farm workers had never been protected in law: in fact the opposite, as a succession of 'masters and servants' Acts throughout the nineteenth century, in the aftermath of the abolition of the slave trade in 1808 and of slavery itself in 1838, skewed the common law in favor of their employers (Williams 2016). After the first democratic elections, the new government set about revising all of South Africa's labor laws, resulting in four major pieces of legislation, which all included farm workers for the first time. These laws included the Basic Conditions of Employment Act of 1997, in terms of which a Sector Determination could be promulgated to define minimum working conditions, including a minimum wage. This was introduced in agriculture in 2003. In 2013 the minimum wage was increased by more than 50% (Conradie et al. 2018).

Conradie et al. (2018) model the wage elasticity among wine grape farm workers, showing that even the 51% wage increase had a relatively small impact on permanent farm workers, because the long-run wage elasticity was only −0.58 to −0.70. Casual workers, many of them women, are not so fortunate, however, as in their case the long-run wage elasticity is −4.7, which means devastating losses when the wage rises. This also jeopardizes the prospects for viticultural practices such as canopy management and cover crops which have been introduced to better regulate the impact of drought and heat on the grapes (all symptoms of climate change). This makes it more difficult to produce quality wines, which in turn jeopardizes the international competitiveness of the industry.

However, the distinguishing feature of wine farm workers was the 'dop' or 'tot' system, whereby male workers were given wine regularly throughout the

[8] Note that the process started a decade before the first democratic elections in 1994.

day—in lieu of wages in the worst manifestation of the system or as partial remuneration. Williams (2016) traces the various attempts to make the practice illegal—this was already accomplished in 1809 but had to be supplemented with legislation at regular intervals (e.g. in 1928 and 1963). He also traces the origins back to the first settlement and the slave society that subsequently arose (Williams 2016). The results of this practice were predictable and devastating (e.g. Marcus 1989; London 1999; May et al. 2005), and persist to this day (e.g. Donald et al. 2017).

9.4 The Consequences

The origins of the particular structure of the South African wine industry have been described in some detail in the preceding sections. In this section the consequences will be investigated, with a focus on the efficiency of wine grape producers, the fragmentation of the industry, the shifting geography, and the competitiveness of the industry.

9.4.1 Efficiency of the Wine Grape Producers

Efficiency, based on technology and management, is central to international competitiveness. In a recent article (Piesse et al. 2018) the efficiency levels of wine grape farmers in the old established wine regions of South Africa (Stellenbosch and Paarl) is compared to that of farmers in the newer regions (the rest of the industry). Thus, the question whether experience plus first choice of location matters more than the follower's advantage of being able to use newer technology is addressed.

The results show that land area is the most important input into the amount of wine grape production, followed by labor and pesticides, while fertilizer, machinery, and electricity make smaller contributions. For the old regions, land area has a smaller impact on output than in the new (probably because of the lower yields of the cultivar portfolio), while labor has a bigger impact (probably because it is more skilled in the areas closer to the Cape Town metropolitan region). Inefficiency levels were reduced by expenditure on labor supervision in both regions, by a higher ratio of permanent to casual workers (permanent workers need less supervision) and by modern trellising in the old areas, but not in the new. More inorganic fertilizer increased inefficiency in both regions, increased drip irrigation reduced inefficiency in the new regions but not the old (in these areas irrigation infrastructure is intended for supple-

mentary purposes, hence as insurance rather than to boost yields), while more dryland had a negative effect in the new areas but not the old. A higher proportion of red to white grapes reduced efficiency in the old regions but not the new. And finally, more old vines as a share of the total, suggesting low levels of replacement of the vine stock, only had a negative effect in the new regions. There is, therefore, evidence that farmers in the new regions have tended to go for higher yields at the expense of quality, whereas the old regions have tried to maintain their reputation for quality, a strategy that was wrong, at least in the short term.

There is also no real sign of an inverse farm size productivity relationship, a point made two decades ago by Townsend et al. (1998). For example, while the average vineyard increased by 55% between 1995 and 2015, the yield of wine grapes increased by 100% despite the shift to lower-yielding varieties, and the yield of wine increased by 75%.

9.4.2 Fragmentation of the Industry

South Africa is known for its highly sophisticated financial services sector. For example, the country was ranked 53rd out of 63 countries in the World Competitiveness Report of the World Economic Forum (2017), while the financial services sector ranked 31st (Schwab 2017). However, this was not always the case, and the wine industry more or less had to finance its own growth out of the devastation wrought by phylloxera (1886), tariff-restricted access to the market in Johannesburg in the period leading up to and during the Boer War (1899–1902) and the Great Depression (Vink et al. 2018a).

We have shown that one of the main instruments around this capital constraint was the producer cooperatives (aided by government loans and legislation that supported the cooperatives). However, because the cooperatives traded mostly in bulk wine, their main modus operandi was to manage a pool system, largely because their priority was quantity rather than quality. This became a self-fulfilling prophecy because the wineries themselves were built to deal with rapid throughput rather than with small batch production. As a result, the farmers' grapes were aggregated into pools with a wide range of qualities, and little differentiation in price, leaving individual producers with the age-old temptation to 'hide in the pool', as was shown earlier. Thus the solution to the problem of a lack of capital became the reason why farmers could not build up sufficient capital to produce higher-quality grapes.

One of the consequences of the export boom that commenced after the end of *apartheid* was the establishment of new grape production units in the

industry, but this time with a difference: while the total number of producers was declining rapidly (and mostly among the smaller producers, as has been shown), the number of private cellars was increasing, and there was little substitution between these; in other words there has been no increase in the numbers of grape growers in the industry. While this does not change much in terms of fragmentation, it is interesting to speculate on its impact on those representative institutions that have the grape growers as their base membership, such as the industry body VinPro, and the relative influence of the producer cellars in industry initiatives.

What is evident currently, though, is a lack of leadership in the industry with regard to transformation, including land reform, even though a major initiative was launched more than a decade ago with the establishment of the South Africa Wine and Brandy Company (SAWB), an industry body whose main task was to influence government policy on behalf of the industry and in the process to support the work of the business units (SAWIS, Wines of South Africa (WOSA), and the Wine Industry Network for Expertise and Technology (Winetech)) with a focus on transformation of the industry. To this end, SAWB designed the Wine Industry Plan (WIP). Furthermore, a BEE program and scorecard were proposed, in accordance with the government's Broad-Based Black Economic Empowerment (B-BBEE program), but these initiatives came to naught when SAWB, which had just been transformed into the South African Wine Industry Council (SAWIC) was summarily terminated in 2008.

9.4.3 The Geography of the South African Industry

One of the unique features of the South African wine industry is its geographic concentration around Cape Town and the Cape Peninsular, with some 90% of the vineyards less than 200 km from downtown Cape Town. From a wine tourism perspective, the industry is even more fortunate, as the epicenter of good wine production is right on the city's doorstep, with the Durbanville Hills and Cape Town wards and the Stellenbosch and Paarl District all within an hour's drive. These four demarcations have a total of almost 300 private cellars, that is, some 60% of the industry total. Furthermore, while there are only about 50 old Cape Dutch farmhouses left, these are all in close proximity to Cape Town.

The geography of the wine industry has been changing globally over the past decades, arguably because of climate, a factor that has been prevalent in the wine business for a long time (Storchmann 2011), and more specifically

because of climate change (Ashenfelter and Storchmann 2016). The South African industry, and specifically the Stellenbosch region, where the average maximum daytime temperature in the summer increased by 1.7 °C between 1961 and 2008, is no exception (Bonnardot and Carey 2008).

The diversity in wine styles that has always characterized the South African industry has come under threat from climate change—if the entire area is becoming hotter, for example, it is more difficult to retain a diversity of styles of wine (Vink et al. 2012). One way of dealing with this problem is to expand production into cooler areas, which has in fact been happening. For example, if one draws a line running east to west, and cutting through Vriesenhof farm in the Paradyskloof area of Stellenbosch, then there were 12 private cellars south of the line (i.e. toward the cooler coastal area) in 1991—now there are 31. Similarly, a north-south line that runs through Middelvlei farm gave 32 private cellars to the west of the line (also toward the coast) in 1991 and 72 in 2016. Other cool climate areas such as Elgin (24 private cellars), Durbanville (25), Cape Peninsula (21), and Hermanus and the southern Cape (40) have also shown the strongest growth in the number of private cellars. Diversity can, of course, also be enhanced by changes in viticultural and oenological practices and by changes in wine styles.

9.4.4 The Competitiveness of the Industry

Figure 9.2 shows the international competitiveness of the South African wine industry since 1985, measured in terms of the revealed comparative advantage

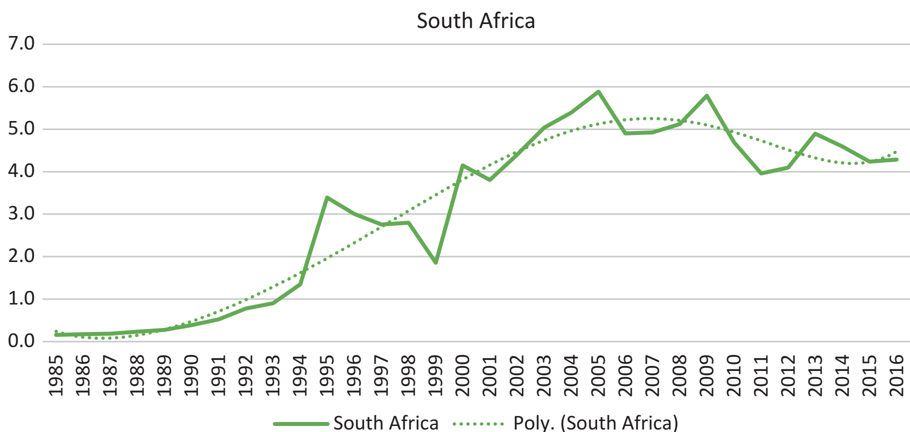

Fig. 9.2 South Africa's RCA in wine. (Source: Anderson and Pinilla 2018)

(RCA), an indicator that compares the growth in net exports of a product such as wine relative to a benchmark (in this case South Africa's net exports of all agricultural products) to that of global growth in wine exports relative to all agricultural exports. A ratio greater than one denotes competitiveness.

The first phase (Esterhuizen and Van Rooyen 2006) that can be identified from the data encompasses the era of regulation under the KWV and the subsequent transition to democracy, accompanied by the opening of export markets. However, competitive pressure from especially Australia and Chile soon brought the industry back to reality, while the new plantings of (mostly red) wine grapes had not yet come on stream.

The industry was able to weather these storms and posted an RCA of above five from 2003 to 2009, on the back of a weaker domestic currency, larger supplies of high-value grape cultivars, and rapidly growing exports into Germany. During this time the South African brand was being established with new initiatives such as the environmental (the Integrated Production of Wine and Biodiversity and Wine Initiatives) and social focuses. However, this era also came to an end, coinciding with the Great Recession that started in the USA in 2008/2009. The South African economy has yet to recover, thus exports are constrained by difficult trading conditions, and the domestic market shows few signs of growth. Furthermore, the industry has not fared well in terms of the prices that it can command on the global market: the average unit price of South Africa's wine exports is lower than that of any of its competitors.

9.4.5 Summary

There are a number of other aspects of the industry that should properly also be addressed in more detail, such as the lack of progress with land reform, the position of farm workers, and technology development and adoption, but space constraints preclude such discussion. In summary, then, the South African wine industry grew from the 17th largest wine producer by volume in 1910 to the 8th largest today. However, this relatively rapid growth in output was largely the result of growth in relatively low-quality high-yielding wine grape varietals.

At the same time, domestic wine consumption has been stagnant for the past five decades at a level of 8 to 10 liters per capita, excepting for a brief five years (1971–1976) after the establishment of the Stellenbosch Wine Route and the introduction of the Wine of Origin Scheme. The market for wine was clearly limited by the small middle-class market, which at the time consisted

mainly of white people. However, per capita consumption has remained at these levels since 1990, an indication that the industry has failed to penetrate the rising black middle-class market.

The RCA of South Africa's wine exports was below one throughout most of the twentieth century, moving above one in 1994, increasing until 2008, and then remaining level. Thus, an industry with a low proportion of quality wine production, unable to grow its own domestic market, and highly dependent on the export market where it seems unable to improve the price points at which wine is sold.

9.5 The Future

If these are the origins and their consequences, then what does the future hold for the South African wine industry? While the future cannot be known, it is possible to envisage at least some important pointers for the industry:

1. Prosperity in the industry has always depended on its export performance. Given South Africa's position in the world economy, this means that the industry will, as now, be dependent on political stability to ensure exchange rate stability and on government performance to enhance market access.
2. The number of grape growers will continue to decline along with the area under vines until an equilibrium price can be reached where grape growing becomes more profitable. This will also mean that there has to be greater differentiation between wines of different quality, which in turn means investment in wine making and storage facilities. Therefore, these are not changes that will take place in the short term.
3. In this regard, however, the new phenomenon where brand owners from among the private cellars, rather than the producer cellars, are buying an increasing proportion of the high quality crop, will hasten this shift to premium prices for premium grapes.
4. The global market for wine has shifted from place as the most important descriptor (generally in the Old World countries, led by France) to cultivar, under the influence of the new world producers, especially Australia and the USA, and a new trend is now evident, namely, taste: people are drinking cheaper, blended wines (e.g. Morss 2017). This augers well for the South African industry, but only if the industry can convince the black middle class to drink wine. How an industry as fragmented as ours will succeed in this is, however, not clear.

5. The South African industry has hardly transformed in the 24 years since democracy, but the government has not sanctioned it for this lack of progress. The wine industry is no exception in this regard (nor is the agricultural sector as a whole) but industry expectations of government support must be tempered by realism about the ability of government to continually ignore this lack of progress.

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